PARLIAMENTARY ACTS

XIII LEGISLATURE

Doc. **XXII-***bis*
n. **1**

PARLIAMENTARY COMMITTEE OF INQUIRY INTO THE CERMIS TRAGEDY

(established with a resolution of the Assembly on 19 October 1999)

(composed of the deputies: *Iacobellis,* President*, Marino, Olivieri,* Vice Presidents*, Rizzi, Saonara,* Secretaries*; Boato, Brugger, Crema, De Cesaris, Detomas, Di Bisceglie, Fontan, Franz, Frattini, Frigato, Fumagalli Marco, Gazzilli, Giannattasio, Gnaga, Lucchese, Mitolo, Niccolini, Ortolano, Ruffino, Schmid)*

FINAL REPORT

(Rapporteur: **Luigi OLIVIERI)**

Approved by the Committee at the session of 7 February 2001

Submitted to the President of the Chamber on 8 February 2001

PAGINA BIANCA

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INTRODUCTION

Establishment of the Committee, methodology and structure of the report

On 3 February 1998, at 14:13 hours Z (15:13 local time) a US Marine Corps EA-6B Prowler electronic warfare aircraft, deployed to Aviano with the VMAQ-2 squadron for Operation Deliberate Guard in Bosnia, was engaged in training mission EASY 01 when it severed the cables of the Cermis cablecar, causing the gondola to fall and the death of the 20 passengers aboard. The profound impact of the tragedy was inevitably felt in Parliament, prompting, in addition to close monitoring of developments, a wave of requests for the establishment of a bicameral Committee to investigate the incident. (1)

However, an assessment of the considerable procedural and organizational complexity of convening a bicameral Committee, in addition to the considerable investment of time that such a Committee would require, prompted consideration of the option of establishing a monocameral investigative Committee with the same mandate. (2)

The latter course was supported by the Chamber of Deputies, which on 19 October 1999 approved a resolution for the « Establishment of a Parliamentary Committee of Inquiry into the Cermis Tragedy », with the task of fully clarifying the events, causes and responsibilities at all levels, of evaluating the adequacy of the rules governing military training flights in Italy and of verifying the control procedures and systems for such flight activity (Article 1 of the resolution).

This report is the product of the complex inquiries of the Committee. It is divided into six parts. The first describes the events that led to the tragedy and summarizes the reactions of the various Italian institutions, with a special focus on the inquiries of the Chamber of Deputies. The second part outlines the activities of the Committee, reviewing the hearings and missions carried out and summarizing the main issues examined. The report has been structured in this way so as to provide an overview of the facts and related issues in order to facilitate immediate understanding of its conclusions

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(1) More precisely, on 21 July 1998, bill no. 5146 presented by deputies Mantovani, Nardini, Pisapia and Valpiana; on 5 March 1999 bill no. 5785 presented by deputies Paissan, Boato, Crema, Leccese, Balletti and Detomas; on 11 March 1999 bill no. 5803, presented by deputies Mussi, Ruffino, Spini, Schmid, Olivieri, Basso, Camoirano, Caruano, Chiavacci, Gatto, Migliavacca, Malagnino, Ruzzante, Settimi, Gaetano Veneto, Carboni and Di Bisceglie; and, finally, on 23 March 1999 bill no. 5844 presented by deputies Romano Carratelli, Molinari, Angelici and Detomas. In the Senate bill no. 3882 was presented by senators Russo Spena, Cò and Crippa.

(2) The following proposals were presented: on 22 March 1999, Doc. XXII no. 50 by deputies Paissan, Boato, Leccese, Galletti and Crema; on 23 March 1999, Doc. XXII, no. 51 by deputies Olivieri, Carboni and Schmid; on 7 April 1999, Doc. XXII, no. 52 by deputies Romano Carratelli, Albanese, Molinari and Angelici; and, finally, on 7 April 1999, Doc. XXII no. 53 by deputies Fontan and Gnaga.

and proposals, which are set out in Part 6. The interested reader can examine the issues in more detail by consulting parts 3, 4 and 5. More specifically, Part 3 analyzes the administrative and judicial inquiries conducted following the tragedy, Part 4 attempts to specify who was responsible for the developments that led to the tragedy and Part 5 examines the main problems that emerged from the Cermis incident, with special regard to international law, the regulation of flight operations and low-level flights.

For the convenience of readers, the report is supplemented by an appendix containing a list of the agreements and regulations governing NATO and the presence of Allied military units in Italy and the regulation of flight operation, a chronology of events and a glossary of acronyms and abbreviations used in the report.

On behalf of the Committee, the rapporteur would like to thank all of the consultants for their invaluable assistance in analyzing the problems raised by the inquiry: Vincenzo Autera, councilor of the Court of Appeals of Potenza; Lt. Gen. Luciano Battisti, Air Force Reserves; Prof. Sergio M. Carbone, professor of international law at the Department of Law of the University of Genoa; Silvia Daloiso Lupo, magistrate with the sentence supervision court of Bari; Giovanni Kessler, deputy prosecutor at the Court of Bolzano; Francesca Longo, journalist; Antonio Manna, councilor of the Court of Appeals of Potenza; Prof. Giuseppe Nesi, professor of international law and European Community law at the Department of Law of the University of Trento; Davide Romano, attorney at law – Bari; Lt. Gen. Antonio Rossetti, Air Force Reserves; Francesco Paolo Sisto, attorney at law – Bari.

In addition, I would like to express my sincere thanks to the offices of the Chamber of Deputies, and in particular the councilors Giacomo Lasorella, chief of staff of the Committees of inquiry, monitoring and control and Stefano Silvetti, secretary of the Committee, and Sabina Muscetta, documentalist, for their invaluable help in the work of the Committee and, more specifically, in assisting the rapporteur in drafting this report.

PART I

THE EVENT AND THE REACTIONS OF ITALIAN INSTITUTIONS

1. THE EVENT

1.1 The operational context: Bosnia, Yugoslavia and the operational role of NATO and Italy

In order to permit a more complete understanding of the events that led to the Cermis tragedy, it is necessary to begin with a summary review of the context in which the mishap flight took place. Considering the situation in the former Yugoslavia, in December 1995 the North Atlantic Council authorized Operation Joint Endeavour, charging a 60,000-strong multinational NATO force (IFOR-Implementation Force) with the task of ensuring the implementation of the military aspects of the Dayton peace accord, which officially put an end to hostilities (Paris, 14 December 1995). In December 1996, IFOR was replaced by a Stabilization Force (SFOR) of about 30,000 personnel. Beginning in summer of 1998, SFOR adopted a transition strategy involving the gradual and progressive reduction of the force and the implementation of the civilian aspects of the agreement. This strategy was officially adopted by NATO in December that year. However, beginning in January 1998, the situation in Kosovo grew tense, eventually prompting NATO to undertake an air campaign against targets in the former Yugoslavia starting on 24 March 1999.

In this regard, the SFOR operation designated « Deliberate Guard » (DG), which was aimed at monitoring and controlling the situation in Bosnia following the Dayton accords, took the place of the IFOR « Joint Endeavour » operation, which had previously replaced Operation Deny Flight (an operation in the airspace and territory of the former Yugoslavia preceding the Dayton agreements. Between 12 April 1993 and 20 December 1995 it carried out a total of about 100,000 operational and training missions, most conducted in Bosnian airspace). Operation DG was to have been completed in July 1997, but it was extended for another year in view of the instability of the situation in Bosnia. As stated by the Chief of Defense Staff, Gen. Arpino, the Allied air forces had carried out about 200,000 missions. As regards Operation DG, between 22 August 1997 and 3 February 1998, the day of the mishap, the VMAQ-2 squadron had carried out a total of 254 sorties, including 164 operational missions, 69 squadron training flights and 21 functional checkflights.

The Cermis tragedy took place in this context, i.e. when the incident occurred, NATO was transforming a peace-enforcing force into a peace-keeping force in Bosnia.

In order to enable NATO to carry out missions over Bosnia with the necessary effectiveness, Italy, in view of its geographical position, had opened its airbases (including technical and logistical support) to all the participants in the operation. The Aviano airbase, home of the

31st Fighter Wing (31st FW) of the USAF (equipped with F16s), also played host on a rotating basis to aircraft of the Spanish and UK air forces and the US Marine Corps, with F18 and EA-6B Prowler squadrons. The deployment and tactical control of operational missions and preparatory training activities of the latter were handled directly by the Combined Air Operation Center (CAOC) of the 5th Allied Tactical Air Force (5th ATAF) in Vicenza. By contrast, training activities by these units related to other objectives (for example, national needs, such as functional checkflights or technical testing, or currency training for aircrews) were reported to the Italian authorities through the 31st FW, which was responsible for drawing up a daily flight schedule and submitting it to the competent Italian bodies for authorization.

1.2 Description of the flight of 3 February 1998: the impact and its consequences

The second mission in the flight schedule for the VMAQ-2 (Marine Tactical Electronic Warfare Squadron 2) for 3 February 1998 was a flight (denominated EASY 01) over the AV047 route (standard low-level flight of the 31st FW stationed at Aviano, approved by the competent Italian Air Force authorities) with an estimated flight time of 1:30. This training flight was not a NATO mission. Rather, it was a US mission, as confirmed by Gen. Clark, Commander in Chief of US forces in Europe, in rejecting Italy's request for the United States to waive its priority jurisdiction.

The flight plan was authorized by Lt. Col. R. Muegge, Commanding Officer of the VMAQ-2 Squadron, while proper execution of the flight was the responsibility of the pilot, as prescribed by the NATOPS manual (Naval Air Training and Operating Procedures Standardization).

The EASY 01 aircrew was composed of Capt. Richard J. Ashby (with 482 flight hours on the EA-6B and 783.8 total flight hours, including 7 sorties and 14.5 hours in the previous 30 days), pilot and commander; Capt. Joseph P. Schweitzer (998.9 hours on the EA-6B and 1157.5 total hours, including 8 sorties and 18.5 hours in the previous 30 days), navigator and first electronic countermeasures officer (ECMO1); Capt. William L. Raney (201.5 hours on the EA-6B and 368.2 total hours, including 11 sorties and 21.9 hours in the previous 30 days), ECMO2; and Capt. Chandler Seagraves (355.1 hours on the EA-6B and 523.5 total hours, including 6 sorties and 10.7 hours in the previous 30 days), ECMO3.

The entire crew had been judged medically fit for flight operations, although Capt. Schweitzer had had some medical problems a few years earlier. Capt. Seagraves, who had just arrived in Italy to organize the deployment to Aviano of his unit (VMAQ-4), was included late in the flight schedule as a write-in, under authorization from Lt. Col. Muegge, after having received the required briefing and passed the emergency procedure quiz. The other three members of the aircrew were about

to return to the United States. In particular, Capt. Ashby was making his last flight on the EA-6B, as upon his return home he was being transferred to a unit equipped with F18s. His last low-level training flight had been carried out on 3 July 1997.

According to the NATOPS manual, the pilot in command of the mission was in charge of: preparing the charts and flight logs; fuel planning; checking the notices to airmen (NOTAMs); obtaining weather information; completing the flight plan on the basis of existing US and Italian rules; and reading the aircraft maintenance discrepancy cards. The ECMO1 was responsible for navigation, navigation and communication systems and assisted the pilot to enhance weapons system employment. He was also responsible, where necessary, for in-flight changes to the flight plan and assisting the pilot in lookout routing. In addition to their specific electronic countermeasures duties, the ECMO2 and ECMO3 were responsible for contributing to the safe conduct of the flight by assisting the pilot in the lookout routine, with special regard to course changes. All ECMOs were responsible for being aware of the state of the aircraft and the operating environment and for advising the pilot of any corrective action required to avoid collision..

Pre-flight planning began in the afternoon of 2 February under the responsibility of Capt. Recce, the Operations Duty Officer (ODO). Capt. Recce was required to maintain and update the flight schedule and aircraft assignments. The ODO was also responsible for Operational Risk Management (ORM). This was a program being developed by the 2nd Marine Air Wing (MAW), of which VMAQ-2 was a particolo As no formal program yet existed, VMAQ-2 took the initiative in developing an ORM checklist.

The aircraft assigned to the flight was the EA-6B (Bureau Number 162045), which had been certified as « safe for flight ». it had flown 5.8 hours in 2 sorties in February 1998, and 28.7 hours in 14 sorties the previous month. Since its deployment to Aviano, it had flown 245 hours 36 minutes. On 3 February 1998 the aircraft had already been used for a flight between 9:30 and 12:20 that morning on an operational mission over Bosnia. After this first flight, the pilot had reported one discrepancy, namely that the Cockpit G Meter was not recording maximum and minimum G readings. The instrument was replaced but checked good on the ground. All operations prior to taxiing were performed without problems or discrepancies in the on-board instrumentation.

The mission was included in the daily flight schedule of the 31st FW of 2 February for the following day. It was approved at 21:57 by the COA/COM of Martina Franca with the appropriate ASMIX, which envisaged the execution of a standard low-level route designated AV047 BD with turnpoints indicated with related altitude above ground level (AGL), airspeed and heading: first leg Aviano-Ampezzo, 500 ft., 480 kts, 011°; second leg Ampezzo-Brunico, 500 ft, 480 kts., 300°; third leg Brunico-Ponte di Legno, 500 ft., 480 kts, 240°; fourth leg Ponte di Legno-Casalmaggiore, 2,000 ft., 480 kts, 184°; fifth leg Casalmaggiore-Lago di Garda, 2,000 ft., 480 kts, 025°; sixth leg Lago di Garda-Riva

di Garda, 2,000 ft., 480 kts, 015°; seventh leg Riva di Garda-Marmolada, 2,000 ft., 480 kts, 051°; eighth leg Marmolada-Aviano, 2/3,000 ft., 350 kts, 128°.

Takeoff was scheduled for 13:30 GMT, with the flight expected to return about 90 minutes later, with the low-level segment of the flight to end at about 14:20, with the return to base to be conducted on instruments and landing expected at 15:00. The route was included in the SOP ADD-8 directive. The only change on the original standard route contained in SOP ADD-8 was the heading given in the available navigation card (later found on the aircraft), which in the Riva del Garda-Marmolada leg indicated a heading of 049° rather than 051°.

On 3 February 1998 weather conditions in the area were ideal for low-level flight, with visibility of 7 statute miles, few clouds at 22,000 ft, wind 190° at 4 kts., temperature 5°C. On the basis of the time of the mission and the direction of the flight, the aircrew had the sun at their backs in Val di Fiemme.

After the briefing, the Aviano control tower cleared the flight to start engines at 13:12:30 on 3 February. About 20 minutes later EASY 01 reported that it was ready for takeoff. The aircraft took off at 13:35:50, about 6 minutes later than scheduled. Radio contact with Aviano ceased at 13:37, with the flight cleared to contact the Padua air traffic control agency. Given the material impossibility of maintaining radar contact with low-level flights in mountainous areas, it was only after the inquiry that it was possible to identify three segments of the flight during which flagrant violations of low-level flight regulations were committed. In summary: during the first stage of the flight, from Aviano to Ponte di Legno, the altitude, airspeed and, at times, heading restrictions were violated. In the second stage, over the Po flatlands, which are heavily populated and contain numerous population centers, the flight descended below the authorized limit on a number of occasions, flying as low as 100 meters AGL. The third stage, from entry into the Val di Fiemme at Lago del Stramentizzo until Cermis, lasted no more than one minute. The aircraft entered Val di Fiemme at an altitude of between 260 and 300 meters AGL, descending to about 110 meters at the point of impact, covering the ground to the cablecar at a speed of about 540 kts. In addition, during the Riva del Garda-mishap site leg, the aircraft diverged from the route centerline by up to 8 miles, well over the limit of 5 miles, as the pilot followed the contours of the valleys rather than the prescribed route above them.

At 14:13 on 3 February 1998, the aircraft hit and severed the loadbearing and drive cables of the Cermis cable array, presumably banking to the left on a downward trajectory. The descending gondola was about 300 meters from the station. The impact point was estimated at about 40-50 meters from the gondola on the station side. The gondola fell to the ground, first hitting the ridge before rolling and coming to a rest upside down..

The victims included: Italian citizens Marcello Vanza, from Cavalese (Trento), the gondola operator, aged 57; Edeltrand Zanon, born in Innsbruck, 56, resident of Bressanone; and Maria Steiner, 61, of

Bressanone; Polish citizens Ewa Strzelszyk, 38, and her son Filip, 13, of Gliwice; Belgian citizens Rosemarie Ian Paul Eyskens, 25, of Kalmthout; Sebasian Van den Heede, 27, of Brugge; Hadewich Anthonissen, 25, of Vechelderzande, Stefaan Vermander, 28, of Assebroek; and Stefan Bekaert, 38, of Leuven; the Dutch citizen Ada Jannetje Elena Groenleer, 21, of Apeldoorn; the Austrian citizen Anton Voglsang, of Vienna; the German citizens Sonja Weinhofer, 24, born in Munich and resident in Vienna; Annelie Wessig, 41; Harald Urban, 41; Michael Poetschke, 24; Dieter Frank Blumenfeld, 47; Egon Uwe Renkewitz, 47; and Marina Mandy Renkewitz, 24, all resident in Burgstadt, and Juergen Wunderlich, 44, of Hartmannsdorf. The operator of the ascending gondola, Marino Costa, who remained trapped for 50 minutes before rescue, suffered severe emotional distress and is unable to lead a normal life.

After the impact the aircraft climbed and continued the flight under emergency conditions. The collision had damaged the right wing and the upper part of the vertical stabilizer as well as the jamming pod. EASY 01 re-established radio contact with the Aviano control tower at 14:18:10 at 10 nautical miles west of the airbase on a heading of 245°, declared an emergency and landed, engaging the first cable, at 14:26:40. The crew shut down the engines and effected an emergency exit from the aircraft. Capt. Raney broke his ankle (30 days recovery time) while abandoning the aircraft. Capts. Ashby and Schweitzer were the last to abandon the aircraft.

1.3 The reaction of Parliament, the Government and local authorities

Well before the tragedy, on 25 June 1997, Hon. Olivieri and others had presented question no. 4/11163, with which they underscored the phenomenon of low-level military flights in the valleys of the Trentino area, activity that was creating considerable alarm among the local population and had prompted local government officials to lodge protests with the local military commands, asking the Ministry of Defense to intervene. In the days following the tragedy, all political forces become involved in parliamentary initiatives to monitor and investigate the event. The number of such initiatives was so great as to defy summarization in this report The quality, incisiveness and focus of the entire Italian political community on the events of 3 February 1998 at Cavalese prompted numerous statements by the Governments that have been in power since 1998. These comprise responses to questions, not always judged satisfactory by the questioners, but in any case represent the precise position of the Prime Minister, other ministers and under-secretaries, beginning with the first communication submitted to the joint defense committees of the Chamber and Senate by the then Minister of Defense Beniamino Andreatta on 5 February 1998.

After opening his statement with the declaration that « there would have been no danger if the aircraft had complied with the regulations it was required to observe and which had regularly been communi-

cated to those in charge of flight operations at the Aviano airbase » and ruling out the possibility of a malfunction aboard the EA-6B before impact with the cable car, Minister Andreatta announced his intention to convene a working group that, in agreement with the Ministries of Transport, the Interior, Finance and Justice, would draft a bill reconciling flight operations and noise abatement measures for the civilian population. More specifically, Minister Andreatta underscored the need to « divide Italian territory into zones in which minimum flight altitudes are established in relation to population density; to implement an overall reduction in low-level flights in relation to the gradual introduction of laser-guided weaponry and new flight tactics; to transfer the noisiest air operations over the sea or abroad; to conduct a constant, comprehensive awareness campaign among flight personnel; to abandon important but non-essential training practices (e.g. most summer night flights) ». The minister also note that both the US Secretary of the Navy and the Secretary of Defense Cohen had offered their full commitment to act rapidly and energetically to ascertain the causes of the incident and to adopt the most appropriate preventive measures. He also confirmed that the United States had immediately suspended all low-level flights by US units deployed in Italy. Minister Andreatta announced further reductions on a rotating basis in basic low-level flight training by Allied air forces deployed to Italy. This would be achieved by inserting a clear statement in the agreements with Allied countries that the only authorized low-level flight activity would be advanced training flights (excluding basic skill maintenance) linked to the execution of missions in Bosnia. The minister also announced that he had ordered the armed forces to increase specialized education and training activities for all aviators and personnel involved in providing direct support to air operations at all stages of their training programs. As regards NATO, no call should be made to expel Allied forces from Italy « because this would effectively lead to the renationalization of Italian security and defense, with disastrous political and economic consequences ». The minister concluded with a mention of US intentions regarding an immediate initial payment of damages, intentions that were being encouraged by the Government, with the reconfirmation of the jurisdiction of the country of the crew of the aircraft that caused the disaster and the comment that « the renationalization of security policy would require major changes and an enormous commitment on the part of the Italian State as regards the size and equipment of its military forces and, in a period in which the risks to security are concentrated in southern Europe, would gravely weaken national security ».

A few days later, on 11 February 1998, Minister Andreatta announced that he had ordered the precautionary measure of doubling the minimum altitude for low-level flights from 500-750 ft to 2000 ft for the entire Alpine range and from 500 to 1000 ft above the Po Valley flatlands and the Apennine range, including the islands, without prejudice to the 1500-foot restriction on flights over any town. The minimum altitude in tactical areas was raised from 250 to 500 ft.. He added that on his order the Italian Air Staff had prepared a form for

citizens, local authorities and law enforcement authorities to report flights that they felt were too low or otherwise in violation of flight restrictions. The minister also addressed the issue of compensation of losses suffered by the inhabitants of the Val di Fiemme: « The Minister of Defense will appoint experts to make direct contact with representatives of the local community in order to study possible solutions. This effort will parallel initiatives already initiated by a representative of the United States ». Speaking on behalf of the Minister of Defense on 31 March 1998, Under-Secretary Gianni Rivera confirmed that contacts had been established with the United States for the payment of damages to the local community, stating that « President Clinton himself publicly declared that justice would be done in as short a time as possible. Thanks to the cooperation of the US authorities and the political weight of President Clinton's statement, it was felt unnecessary to present a formal protest to the government of the United States ».

In addition to the Ministry of Defense, parliamentary action also involved the Ministry of Justice. On 19 February 1998, then Minister of Justice Giovanni Maria Flick emphasized that, having heard the Foreign Affairs and Defense Ministers, « the national or NATO nature of the training flight involved in the mishap is irrelevant to the determination of the applicable jurisdiction in this case ». The issue was pursued further at a meeting of the Justice and Foreign Affairs Committees of the Chamber of Deputies on 30 April 1998 in the presence of the Under-Secretary for Justice Franco Corleone. The Under-Secretary, commenting during the discussion of resolution no. 7/00465, presented on 1 April 1998 by Hon. Luigi Olivieri and others, with reference to the possibility of charging those responsible for the tragedy with an offense under Article 432 of the Criminal Code (endangerment of public transportation) that is not envisaged under US law, thereby raising the possibility of double incrimination, argued that « it is not necessary for the action to constitute the same offense in the two legal systems: it is enough for it to constitute an offense in the two systems ». That said, « with the decision not to grant the Italian Government's request to waive jurisdiction over the four airmen, the procedure envisaged under the Status of Forces Agreement (SOFA – the London Agreement) came into effect, with the cesser of concurrent jurisdiction and the recognition of the exclusive jurisdiction of the sending State. In requesting waiver, the receiving State implicitly recognized the jurisdiction of the sending State over an event that occurred in Italy and no other initiative is possible (except where the criminal act should turn out not to have been committed during the execution of official duties or was not committed by a member of the armed forces) to assert primary jurisdiction. »

This summarizes the initial official reactions in the days immediately following the accident. A later event, the acquittal of Capt. Ashby, sparked subsequent parliamentary activity. The Prime Minister, Massimo D'Alema, responded on 10 March 1999, in an address that also contained the US reactions to the event.

D'Alema pointed out that the US technical investigation had explicitly referred to aircrew error, citing « aggressive » maneuvering of

the aircraft with the consequent violation of flight restrictions. It is therefore not possible to characterize the incident (and in truth virtually no one dared to do so) as an unforeseeable accident for which it was not possible to assign specific individual responsibility. The Prime Minister gave a direct account of the substance of his meeting with President Clinton: « I appreciated the sincerity with which the President of the United States acknowledged the responsibility of his country in this incident. This contributed to making our discussions and the search for a solution to the problems raised by this tragic event all the more frank and direct. On my part, I set out the reasons for our deep dissatisfaction with the resulting situation and with the difficulties that establishing responsibility for the event has encountered. I also emphasized that any equitable and due compensation could not in any way conclude or slow the search for the ultimate causes of the tragedy and any related responsibility or negligence. Clearly, our respect for US military justice is not in question here; this is in any case the proper attitude of a political authority with regard to the judiciary in any democracy. We therefore await the outcome of the proceedings under way, one of which regards the serious accusation of obstruction of justice on the part of the pilot. However, we are aware that the full ascertainment of the facts and the prosecution of those responsible cannot depend solely on proceedings now under way. Obviously, the acquittal of the pilot only raises the level at which responsibility must be sought. Having established that the incident was not the consequence of a terrible coincidence but instead depended on a complex of human errors, it is clear that the acquittal of the officer physically in command of the aircraft must shift our attention elsewhere. In my meeting with President Clinton, I emphasized the absolute need to ascertain responsibility at higher levels of the chain of command, to the fullest extent possible, especially considering the outcomes of the criminal prosecutions still under way in the United States. The President's sincere agreement with our request means that our two governments agree that responsibility for the tragedy must be fully exposed, leaving no areas of doubt. This meets our national interest and is appropriate to the essential loyalty and collaboration that marks relations between allies and forms the basis of the North Atlantic Alliance itself. For these reasons, I do not intend to comment on the verdict of the US court martial, which on 4 March acquitted the pilot of the aircraft on all counts. Nor did I expect President Clinton to take any other position with respect to the US military courts during our official meeting in Washington. I will say that the verdict was a worrying sign to many, myself included. And not because many people wanted to find a scapegoat. This was not the issue. The concern arises out of the fact that after that ruling – which on the basis of US military law is final and is not accompanied by a written opinion – concern increased that the true reasons for incident may be further obscured. In short, after the verdict, part of the public both in Italy and the United States increasingly fears that the chances of shining light onto the events in question have diminished and, even worse, that the determination to pursue the investigation into every

aspect of the incident – causes, responsibilities, involvement of higher levels of command – has weakened. Our task is to respond to these concerns. »

Prime Minister D'Alema then announced the Government's decision to lift official secrecy, at least in part, on the Basic Infrastructure Agreement (BIA) and to publish the 1995 Memorandum of Understanding, as well as its intention to address flight safety issues together with the United States, with the establishment of the Tricarico-Prueher Commission: « The Government, following requests from the Military Prosecutor of Padua, which is investigating whether the Italian command of the airbase was in any way responsible, and the Public Prosecutor of Trento to be granted access to the Basic Infrastructure Agreement between the United States and Italy of 20 October 1954, has decided to make the documents available to those judicial authorities. This agreement, heretofore under official secrecy, and subsequent supplementary agreements govern the use of Italian infrastructures in Italy by the armed forces of the United States. Not only will the Government decline to enforce official secrecy, it will also make those documents available to judicial authorities. There is joint agreement to update the special conventions between Italy and the United States governing the operations of the bases on Italian territory. In fact, this effort began with the Memorandum signed by the US and Italian ministers of defense in February 1995 (the Shell Agreement), which introduced new rules and restrictions for each base present in Italy. This document, which is also confidential, will be made available by the Government to Parliament in order for that body to fully understand its terms. » D'Alema concluded with a detailed assessment of the 1951 NATO Status of Forces Agreement: « Within this framework is will be necessary to initiate discussions inside the Alliance on the ways in which the 1951 agreements are implemented today (I note that the European Parliament also shares this concern, expressed in a document approved today). It is clear that while the principles of jurisdiction set out in those agreements remain valid, it is possible in practice first to insist that they be applied only in extraordinary cases; second, that when jurisdiction is claimed by the sending State, the State in which the alleged offense was committed should be protected by specific guarantees, such as the right to participate in the prosecution. I would like to add that it is clear that if after the criminal proceedings under way in the United States responsibility for the Cavalese tragedy has not been ascertained (and I was quite frank on this point with President Clinton and, just now, with the NATO Secretary General, who called to offer his support), it would be even more necessary not only to discuss the ways these agreements are implemented but also to amend and update the agreements themselves because they are obviously inadequate. »

On 12 March 1999 the Deputy Prime Minister Sergio Mattarella underscored the role of NATO and that of Italy within the Alliance: « NATO is probably the international structure that after the end of the Cold War was quickest to adjust its objectives and instruments to the new international context, playing a key role in tackling the new

threats to peace and security on the European continent. Italy was not in any way a passive subject in this transformation, taking an important role in the change and making a major contribution to the Alliance's peace-keeping missions. In addition, NATO has begun a process of developing a strong European identity within the Alliance in order to ensure greater political and military integration and shift more responsibility onto the shoulders of the European countries. Painting NATO as an expression of US hegemony is, in this respect as well, decidedly anachronistic.

Our Committee's work has prompted the Government to take other important positions. In the hearing of 1 March 2000, Under-Secretary of State with the Prime Minister's Office, Marco Minniti, stated: « I believe – and on this matter the Italian Government has undertaken a specific, direct initiative – that the London Agreement of 1951 and the BIA of 1954 need to be amended above all as regards one point, i.e. the prosecution of clear, manifest and unjustified violations in the territory in which operations are being conducted ». He then added: « Amending the London Agreement 'could' – the emphasis is deliberate – satisfy our thirst for justice, but any such action must be evaluated with care in order to avoid creating difficulties for Italian military personnel involved in NATO operations ». Under-Secretary Minniti also emphasized that « there is a part concerning the regulation of the individual bases to which it is necessary to add a specific note for each individual base » and underscored « the important progress we are making in shifting from classified regulations to regulations that we hope can be declassified to the greatest extent possible, especially as regards relations between bases and the local community ».

Finally, note should be taken of the response on 26 January 2000 of the Under-Secretary of Defense, Hon. Paolo Guerrini, to the question submitted by Senator Giovanni Russo Spena on 25 February 1999. Suggesting that the findings of the Committee investigating responsibility for the Cermis tragedy would provide a more complete answer to the senator's question (the senator had focused on the statement of Col. Luigi Stracciari, former commander of the Italian component at the Aviano airbase, to the Military Court of Padua that Italian military personnel at Aviano were too poorly qualified and undermanned to be able to check daily flight schedules), Hon. Guerrini stated that the Ministry of Defense had taken steps to reinforce air traffic control personnel at the base. The mass departure of personnel with the necessary professional air traffic control certification had made it impossible to meet staffing levels, although « since 19 May 1999, at the end of the required training course, three new non-commissioned officers certified in air traffic control had been assigned to Aviano. Additional personnel would be assigned during the course of the year, through both a revision of the staff levels in that specific sector and the assignment of another two personnel of the same category ».

In parallel with the activity of the two houses of Parliament and the Government, the Cermis tragedy spurred considerable action on the part of local authorities, especially in Trentino.

A few hours after the incident, the President of the Autonomous Province of Trento, Carlo Andreotti, and the Councilor for Civil Defense, Gianpietro Vecli, went to Cavalese. With ministers Andreatta and Flick and the Cavalese town government in attendance, the first meeting with the then Prime Minister Romano Prodi was held on 4 February 1998. The Autonomous Province of Trento first advanced a claim to be an injured party in the incident and then, on 13 July 1998, as an aggrieved party to the investigation undertaken by the Public Prosecutor's Office of Trento. During the proceedings, and in particular during the taking of evidence regarding the technical study of the cablecar station and cables, it nominated its own consultant. The Province, the Town of Cavalese and the private company Funivie Alpe Cermis SpA, which manages the ski lift, advanced a claim for damages under the terms of the SOFA.

On 5 February 1998, the head of the Trentino government asked the Conference of Regions in Rome to urge that the investigation remain in Italian hands. On 27 March 1998, the Province appealed to the Minister for Foreign Affairs, Lamberto Dini. On 22 April 1998, in Rome, President Andreotti and the Provincial Councilor for Tourism, Francesco Moser, were received by the American ambassador, Thomas Foglietta. Foglietta assured them that US justice would be swift and severe and confirmed the commitment of the United States at all levels. On 26 May 1998, Prime Minister Prodi met with Moser, stating that « Clinton has assured the Italian government that the United States will do their part completely ». In early June, President Andreotti and Councilor Vecli traveled to Washington for three meetings at the Pentagon, the State Department and the Italian Embassy.

On 8 June 1998 the Ministry of Defense issued a press release stating that « In a recent meeting between Pentagon officials and the US Ambassador to Italy, Thomas Foglietta, the Secretary of Defense, William Cohen reaffirmed the United States' commitment to proceed swiftly with reimbursement of 75% of the damages arising out of the tragic accident at Cavalese on 3 February, in conformity with the terms of the London Agreement. Ambassador Foglietta reaffirmed this commitment in a meeting on 4 June with Prime Minister Prodi and Minister of Defense Andreatta, at which the officials of the two government re-examined the efforts being made to help those who lost their loved ones in the accident ... They also re-examined the possibility of assisting the area involved in repairing the damage caused by the collision. They agreed that the governments of the United States and Italy need to continue to work together and to take all possible steps to assist the families of the victims ... The governments of Italy and the United States praise the action of the Government and the Autonomous Province of Trento to advance funds for reconstruction and the facilitate the necessary permit process. The Italian Government will grant the requested authorizations. Senior officials of the US State Department and Defense Department conducted a fruitful exchange of views with the President of the Autonomous Province of Trento on the occasion of the visit of 3-5 June to Washington. The US Ambassador to Italy in Rome and the Consul of the Milan Consulate

will serve as contact points for private US companies, including those specialized in public relations and engineering, that wish to offer assistance in reviving tourism in Cavalese. »

On 10 June 1998 a further meeting was held between the Cavalese town government and Funivie Alpe Cermis SpA. On 9 July 1998 an American delegation headed by Ambassador Foglietta and Representative Bill Young, Chairman of the Budget Committee, visited Cavalese. On that occasion, the United States informed Italy that Congress intended to make a special appropriation of $ 20 million to meet Cermis-related property damage claims. At the end of October 1998, the new US Consul General, Ruth Van Heuven, personally informed President Andreotti that President Clinton had approved the special $20 million appropriation.

PART II

THE GENERAL FRAMEWORK OF THE INQUIRIES CONDUCTED BY THE PARLIAMENTARY COMMITTEE

1. THE ACTIVITY OF THE PARLIAMENTARY COMMITTEE. HEARINGS AND MISSIONS

The Committee's first step was to obtain the documentation relating to the inquiries carried out in the wake of the disaster. These comprised the three Italian judicial inquiries, the two administrative military inquiries (Italian and American) and the trials by court martial in Camp Lejeune in the United States. The Committee then embarked on a full program of hearings and missions in order to obtain a complete picture of the facts and the steps taken and to study in closer detail the main issues emerging from the documents in question.

The hearings began with the representatives of the Public Prosecutor's Office who were bringing the charges before the criminal court of Trento and the military courts of Padua and Bari. In these hearings the Committee heard the principal actors describe the criteria they followed in carrying out their investigations, the difficulties encountered, the principal questions that emerged and the impressions they had gained from their meetings with the military personnel involved in the various aspects of the incident. The hearings also provided an opportunity to answer questions regarding the outcome of the trials and the legal reasoning used. The Committee then heard representatives of the Government, in the persons of the Under-Secretary of State for the Prime Minister's Office and the Minister of Defense, who contributed to clarifying the framework of international agreements by which Italy is bound, especially with regard to the obligations arising from the country's membership of the NATO Alliance, and the review process for the agreements themselves. At this hearing the action taken by the Government in the wake of the tragedy and the adequacy of the measures adopted were also discussed. The hearing attended by representatives of the local communities, including the Mayor of Cavalese and the President of the Autonomous Province of Trento, and representatives of the public, in the form of the *Comitato 3 febbraio per la giustizia,* allowed the Committee to gain a direct impression of the impact of the military flights on local communities and to learn about the initiatives taken by local administrations for some time before the incident to report the abuses that were taking place and the unease and concern these had created among the population, and in pressing central government to intervene. The next hearing involved senior military personnel: the Chief of the Italian Air Staff, the current Commander of the airport of Aviano; the acting Commander of the 5th ATAF; the military adviser to the Prime Minister; the Chief of the Defense Staff; and the acting Commander of the airport of Aviano.

These persons, who were heard in their dual capacity as members of the administration and experts on the subject of military flights, enabled the Committee to examine more closely the state of relations between Italian and allied military personnel, acquire a greater knowledge of the events leading up to the disaster, clarify complex questions regarding the scheduling, implementation and monitoring of air missions, and, finally, to summarize and evaluate the provisions adopted to ensure that incidents of this nature are not repeated. The Committee also deemed it appropriate to hear the former mayor of Cavalese to find out what the situation regarding military training flights had been in the years preceding the incident, and to conduct a mission to the airport of Aviano to find out how the new procedures adopted after the disaster were being implemented. The Committee then held a session of open hearings at the police headquarters of the Government of Trento, in order to gather further on-the-spot information on low-level flights in the valleys of the Trentino region. After a series of contacts arranged with the help of diplomatic authorities, a mission to Washington was organized to hear the most senior American authorities with expert knowledge of the subject, verify what provisions had been taken and formulate a number of preliminary queries. On their return from this mission the Committee considered that a further hearing with the Commander of the airport of Aviano should be held in order to obtain further clarification from him on his role in the military inquiry carried out by the Americans immediately after the incident.

We shall now provide a slightly more detailed review of the inquiries conducted by the Committee.

On 9 February 2000 the Committee heard Dr. Franco Antonio Granero, Public Prosecutor with the Court of Trento and Dr Bruno Giardina, Deputy Public Prosecutor with the Court of Trento, who made the following points:

from the legal point of view the Aviano base is under Italian sovereignty. However, it is also classified as an « American base » in Italy since the 31st FW of F16s is stationed there under bilateral agreements. The Aviano base is not therefore a NATO base, although it has been used for NATO activities related to operations in Bosnia;

the agreements relating to aircraft deployed for these operations, and in particular the agreement of 21 April 1997 (message SMA/175), envisage a total ban on low-level flights over Italian territory, not least because operations in Bosnia were always carried out at an altitude of no less than 5,000 feet and the aircraft that caused the incident was not an F16 but a Prowler, deployed expressly and exclusively for the operations in Bosnia and therefore subject to this ban;

the Committee noted that breaches of the rules governing minimum altitudes had become something of a habit for the crews of the aircraft of the 31st FW and those deployed for Bosnia, with the acquiescence of the Italian military authorities. It was also pointed out that the American aircraft only used the charts published by the US

mapping agency, in which neither Cavalese nor the Cermis cable car were marked, rather than the Italian Air Force charts, which had been duly sent to them. The Committee also discovered that no suitable quality-control system had been put in place to ensure that the aircrews flying from Aviano had received adequate training and information on the regulations in force or, probably, of the status of the places they would be flying over. For example, the Committee discovered that NOTAMs were transmitted but not brought to anyone's direct attention. A degree of responsibility therefore seemed to be attributable to the American Commander of the base, the Commander of the operational group of the 31st FW and the Italian Commander of the base, whose duty it was to inform the squadrons based there of the relevant regulations and check that they were being observed;

on the question of the priority jurisdiction claimed by the United States for the incident in question, many commentators observed that Italy, like the other NATO countries, had always exercised its right under the Status of Forces Agreement of 1951 (SOFA) to assert its jurisdiction over military personnel who had committed offenses abroad (the most typical case is the Frecce Tricolori formation flying team). But there is a significant legal difference with these cases since the agreement is not being violated in any way, while in the Cermis incident such a violation did take place, which takes us outside the terms of the treaty. The public prosecutor's initial thesis was therefore that the SOFA was not applicable. If, however, we accept that the Agreement should in fact apply, then Italy should be recognized as having sole rather than concurrent jurisdiction, in consideration of the fact that the affair involved to an overwhelming degree the sole interest of Italy, while the investigation of the crime would in no way have influenced the organizational structure of the US forces. If we accept, on the other hand, the existence of concurrent jurisdiction, then priority should be attributed to Italy, again in view of the preponderant interest. The public prosecutors were in no doubt over Italy's sole jurisdiction with regard to the offense of endangering public transport *(attentato alla sicurezza dei trasporti)* pursuant to Article 432 of the Italian Criminal Code, since this offense is not envisaged under US legislation. This last point was confirmed by the consultant on international law appointed by the Public Prosecutor's Office of Trento;

the presence of foreign forces on national territory is in essence regulated not by the North Atlantic Treaty of 1949 as such or by the SOFA, which regulates the consequences of the North Atlantic Treaty in matters concerning jurisdiction, but through a series of pacts and agreements reached at government or even staff level, which implement the framework established by the SOFA. These pacts have not been ratified by law, as Article 80 of the Italian Constitution requires: this explains some of the questions of constitutionality that were raised in the application for committal for trial, while other questions hinged on the fact that the mechanism deriving from the SOFA violates the principle of the natural judge as ascertained by law;

all the NATO countries, including Turkey, have renegotiated some clauses of the SOFA. The agreements renegotiated by the Federal

Republic of Germany and the United States established that the higher interests of the German system of justice (in relation to crimes resulting in the death of an individual, robbery, or rape, with the exception of cases involving the members of an armed force, a civilian component or a person in service) all come under its jurisdiction;

the pilots refused to reply when questioned. From the evidence given by other military personnel heard as « persons informed of the facts », in particular the aircrew members who had flown the same aircraft on the morning of that same day, it emerged clearly that the American defense strategy was to suggest that the radar altimeter (RadAlt) had malfunctioned. This hypothesis was ruled out by the testimony of other pilots, by the reconstruction of the aircraft maintenance records and by the statements of the mechanics and other persons. A malfunction in the RadAlt would have been irrelevant in any case, given that the BOAT manual, which regulated very low-level flights, requires that in all cases of a malfunctioning RadAlt occurs during a low altitude flight, the aircrew must interrupt the exercise immediately and maintain an altitude of at least 2000 feet;

with respect to the responsibility of the various military commands in the disaster, the « foreseeability » of the tragedy, and the regular failure to respect the established limits, in just the three months preceding the mishap 449 low-level missions over Italian territory took place, of which 46 were American; of this total, 84 (27 of which American) involved the Province of Trento. Eleven of these missions were carried out by aircraft deployed to Italy for Operation DG and were therefore in violation of the agreement, which did not envisage low-level training flights for these aircrews;

with regard to the impact of low-level flights on the local communities, 73 formal complaints were found to have been lodged by various bodies or persons, 13 of which involved reports of damage to persons or property. Only in 34 of these cases was it possible to identify the aircraft. The outcome of the 73 complaints, which led to investigations by the Air Force, was just one disciplinary measure taken against the aircrew involved;

various cases were discovered of situations very similar to the one that caused the Cermis tragedy: in 1987 the Falzarego cable car was hit and several people were injured (luckily the gondola was at the station at the time); other cases occurred at Socchieve, in the Province of Udine, Vallarsa, in Trentino, Cortina d'Ampezzo (the American authorities apologized a year later: this was the most that could be obtained). Other cases included the overflight of Torbole, in June 1997, by an Italian aircraft;

the testimony of the parish priest of Molina di Fiemme was of particular interest. He declared that from the rectory, which is at the top of a hillock at one end of the Val di Fiemme, he had seen planes entering the valley at low altitude from Lago Stramentizzo and that he

had observed them from above, in the sense that he could see the upper surface of the aircraft. It was calculated that these aircraft had been flying at 30 meters above ground level;

finally, and this is a question of fundamental importance, the request for authorization of the mishap flight was submitted, it is thought deliberately, if not with wrongful intent, in a daily flight schedule (DFS) listing all the flights of the 31st FW. This was the flight schedule of the US Air Force stationed at Aviano, whose flights were subject to approval by the COA/COM (Alternate/Mobile Operations Center) in Martina Franca, which processes them more or less automatically and is simply required to deconflict the flight schedules. The flights of the forces deployed to Aviano for the Bosnia operation should have gone through another procedural channel and been transmitted and authorized by the 5th ATAF at Vicenza, which has tactical-strategic control for NATO objectives. It can be stated with certainty that this body, which had issued the ban on low-level flights for aircraft used for the operations in Bosnia, would never have authorized such a flight. This is confirmed by the testimony of Gen. Vannucchi, who was the 5th ATAF Commander at the time.

On 5 February 2000 the Committee heard Mr. Maurizio Block, Military Prosecutor with the Military Court of Padua, and Mr. Sergio Dini, Deputy Military Prosecutor with the same court, who made the following points:

the reason for the involvement of the Military Prosecutor's Office of Padua was that the Aviano base falls within its jurisdiction. The military courts have a limited sphere of responsibility: Article 103 of the Constitution indicates that their jurisdiction only extends to military crimes committed by members of the Italian armed forces. The shortcomings of the military criminal justice system had been clear from the very outset (the Military Criminal Code dates from 1941). As a result of these shortcomings, when the investigations were completed it was not possible to conclude that the only offense that seemed applicable, that indicated by Article 117 of the peacetime Military Criminal Code (c.p.m.p.) – *omessa esecuzione di un incarico*, or failure to perform an assigned responsibility – actually applied to the Commander of the base, Colonel Orfeo Durigon. The investigation had to ascertain whether Col. Durigon had carried out the duties laid down by national laws and agreements, as well as the staff organization schedules of 1 August 1994 regulating the tasks of the Commander of the Aviano base.

The possible responsibilities charged to Col. Durigon included: failing to set up a system, under his own command, on the basis of which the Italian command would always be informed of all American activity, so that it could carry out preliminary checks of planned activities, including training flights; and failing to check that very low-level flights did not take place, in compliance with a provision contained in message SMA 175 of 21 April 1997, which applied to the whole country. This provision was repeated the following August, with regard to the Alps alone;

the Committee obtained copies of the legislation governing these matters in order to evaluate the powers and duties of the Commander of the Aviano base. From an analysis of these texts it emerged that the Commander does not have substantive powers of control over the DFSs asked of the Americans, and certainly no powers of veto except over purely formal questions. The 1956 Memorandum of Understanding provides for the presence of an Italian Commander at the installation but goes on to state that the American Commander shall exercise military control over personnel, equipment and any American operations. The Memorandum merely envisages an obligation to inform the Italian Commander of the general activities and requirements of the American military bodies located at the installations, where these activities and requirements might be of interest to the Italian civilian and military authorities. In view of this legislative framework the military prosecutor felt it was not appropriate to bring Durigon to trial and therefore asked for the proceedings against him to be dismissed. The set of duties that the legislation assigns to the Aviano Commander did not seem to take the form of an « assigned responsibility » under the terms of Article 117 c.p.m.p.;

the contradictory nature of the statements made by various members of the Italian Air Force could also be explained by the existence of gaps in the legislation. According to Gen. Pollice the message of 21 April 1997 banning low-level flights also had immediate prescriptive effect for the Aviano Commander, to whom, however, it was addressed merely for information. According to generals Mario Arpino and Andrea Fornasiero, however, both former chiefs of the Air Staff, a message sent for information and not for action *(per competenza*) does not give rise to an obligation for the recipient to implement it. Finally, the contradictory statements made by Gen. Vannucchi and by generals Arpino and Fornasiero and Col. Posocco should be noted. According to Gen. Vannucchi, Col. Durigon should have noticed that the flight authorization procedure was irregular, since it could not be inserted in the flight schedule of the 31st FW of Aviano. According to generals Arpino and Fornasiero and Col. Posocco, however, the procedure was in order, since the flight in question was a training flight of the 31st FW, from which it had originated;

a further complication arises from the presence on the Aviano base of two categories of aircraft: those belonging to the 31st FW and the Marine Prowlers, deployed to the base for the operation in Bosnia. The Commander of Aviano has some powers in relation to the F16s since, for example, the Italian Commander is responsible for air traffic services and the national authorities must be notified in advance of the 31st FW's training and operational activities; such provisions were not, however, envisaged for the aircraft deployed for operations in Bosnia. The regulations governing this type of aircraft are included in the Memorandum of Understanding (MOU) of 1995, which is divided into three sub-agreements. Only the Air Force sub-agreement, which was never signed, would have given the Aviano Commander real powers to block any activities posing a danger to public health on Italian territory.

On 16 February 2000 the Committee heard Mr. Giuseppe Iacobellis, Military Prosecutor with the Military Court of Bari, who testified:

the involvement of the Military Prosecutor of Bari could be explained by the fact that, following the investigations carried out by the magistrates in Trentino, a copy of message SMA-322/00175/SFOR of 21 April 1997 had been obtained. This was sent by the Italian Air Staff in Rome to the NATO SHAPE/SOPA command in Mons (Belgium) and to various bodies in the NATO chain of command in Italy, as well as, for information, various other bodies including the AEROROCs of Monte Venda and Martina Franca;

with regard to flight procedures, the message includes the following elements: arrangements for daily flight schedules; the transmission of these for authorization to the COA/COM, at that time known as the ROC, which has responsibility for the unit's operational and logistical activity and also has the power to issue general instructions to dependent agencies. These include the ATCC, whose main function in peacetime is to deconflict flight plans. This agency has its own exclusive technical sphere of responsibility and is responsible for the training, discipline and use of the personnel in its direct employ. Message SMA/175 of 21 April 1997 was addressed for information to the AEROROCs of Monte Venda and Martina Franca, which at that time operated only in their respective areas of responsibility. Further to various General Staff provisions to reconfigure the lines of command and control of air forces, changes were introduced so that with effect from 5 January 1998 and up to 1 September 1998 the duties and responsibilities of the COA/COM of Martina Franca and the ATCC were extended countrywide;

within this temporary restricted sphere of responsibility, the daily flight schedule for Aviano for 3 February 1998 arrived in Martina Franca from the 31st FW on 2 February 1998. The ATCC of the Martina Franca command then issued the ASMIX message authorizing, for 3 February 1998, the EASY 01 mission involving the low-level flight AV047 BD of the aircraft that would cause the Cermis tragedy. All these factors explain why the Military Prosecutor of Bari, whose district includes the Martina Franca COA/COM, was involved;

the Military Prosecutor of Bari was not actively involved in the proceedings resulting from the Cermis disaster because it did not fall within its sphere of responsibility. However, after the tragedy it was necessary to ascertain whether or not the person who organized the flight had complied with the provisions of message SMA/175 of 21 April 1997 and whether the message was prescriptive or informative, in order to establish whether it introduced a ban on authorizing low-level flights over Italian territory. Once the necessary checks had been carried out, Lt. Col. Celestino Carratù, at the time the director of the COA/COM at Martina Franca, was placed under investigation for the offense envisaged by Article 117 of the c.p.m.p. *(omessa esecuzione di un incarico*), since, having been charged by means of message SMA/175 not to authorize low-level flights on Italian territory unless

he received instructions to the contrary, he had failed to perform this responsibility since he did not issue instructions not to authorize low-level flights;

briefly, the message was considered by the competent bodies to be informative rather than prescriptive, since the SMA merely proposed to the NATO command the solutions decided upon (technical meeting of 17 March 1997 between the General Staff and NATO to prevent environmental damage). It did not, however, explicitly clarify that provisions had emerged from that technical meeting that had to be implemented and had in any case been sent to the AEROROC of Martina Franca for information. Since the message does not confirm that a responsibility was being assigned, it was requested that the proceedings be dismissed.

On 1 March 2000 the Committee heard the Under-Secretary of State in the Prime Minister's office, Mr. Marco Minniti, who provided a brief summary of the facts and the various inquiries carried out, and went on to underscore the following points:

the American request to exercise jurisdiction over the crew of the aircraft had been entirely legitimate. At the same time, our Government had acted correctly in pointing out, in full respect for the American military jurisdiction, that the decision for acquittal should have led the parties involved to examine whether there was a higher level of responsibility, since it was not acceptable that the attempt to ascertain the truth should be abandoned. The Government cooperated with the judicial authorities, as shown by the decision to waive state secrecy and allow them access to part of the text of the bilateral Italy-United States framework infrastructure agreement signed on 20 October 1954;

the Tricarico-Prueher Bilateral Commission was established with the task of defining all procedures relating to exercises and low-level training activity by US forces in Italy, so as to ensure the maximum degree of safety. The basic result of this was a ban on low-level flights over Italian territory by non-permanent foreign flight units, except in exceptional circumstances to be assessed on a case-by-case basis by the Italian authorities. This type of flight was peremptorily curtailed for permanently stationed units;

with regard to the rationalization of the regulatory agreements, the review process had already begun with the stipulation of the Memorandum of Understanding (MOU), known as the Shell Agreement, between the Ministry of Defense and the US Department of Defense in 1995, on the use of installations by US forces in Italy. This document sets out the terms of reference for drawing up the technical arrangements for each installation and infrastructure. The agreement has two annexes: one contains the standard format for the technical articles required to draw up the technical arrangement for each installation, the other concerns the procedures for the relinquishment of the infrastructure and the calculation of the residual value. The new

technical arrangements, to be based on the standard format contained in the Shell Agreement, will deal mainly with detailed aspects of routine administration, making them simpler to apply and introducing greater transparency in relations with the United States, while « sensitive » information will be contained in the additional protocols to the above-mentioned 1954 Agreement. This will be signed by the Ministry of Defense, as it is an integral part of the agreement legitimizing the US presence in Italy;

the Government's initiatives to compensate the relatives of the victims led to the appointment of a liquidator on 25 January 2000 and the issuing of the DPCM (Prime Minister's Decree) of 8 February 2000.

On 8 March 2000 the Mayor of Cavalese, Mauro Gilmozzi, and the representatives of the *Comitato 3 febbraio per la giustizia* of Cavalese, Mr. Werner Pichler and Mr. Beppe Pontrelli, were heard.

The Mayor of Cavalese made the following points:

military flights in Val di Fiemme have created a situation of deep unease and fear among inhabitants, but the response to their frequent complaints had been that the flights were in order. The question was therefore political in nature, in that Italy allowed training activity that was dangerous and a nuisance to take place in such a delicate area as the Alpine valleys: it is the State that lays down the rules. The Municipality had done everything in its power to bring the situation to the attention of the competent bodies.

Various complaints relating to episodes that had taken place between 1981 and the present were then presented.

The representatives of the *Comitato 3 febbraio per la giustizia* observed:

that the Mayor had not brought an essential document regarding a question submitted in 1991 by a municipal councilor, which focused on these flights (3); while this was not a personal dispute with the Mayor, the municipal administration did not seem to have taken adequate and sufficient action;

the findings contained in the documents of the judicial proceedings showed clearly all the breaches of the rules that had been committed and the responsibilities of the pilot; the representatives of the committee proposed that other eye witnesses, whose names were provided, should be heard;

the *Comitato 3 febbraio* had engaged in intense activity to bring the affair to the public's attention and help to reveal the truth: a brief presentation of this activity was given.

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(3) During the hearing, after the objection by the representatives of the Comitato 3 febbraio, the Mayor, Mauro Gilmozzi, handed over a copy of the question to the Commission.

On 15 March the President of the Province of Trento, Lorenzo Dellai, was heard. He made the following points:

within the sphere of the judicial proceedings the Province of Trento had appointed its own technical consultant, who worked alongside the Public Prosecutor's Office of Trento;

with regard to administrative activities, the Province had tried to take action with the American Embassy through the Ministry of Defense so that arrangements could made quickly to establish procedures for obtaining compensation for damages, especially for the relatives of the victims;

at the Province's request, on 5 February 1998 the Conference of Presidents of the Regions and Autonomous Provinces approved an agenda item expressing the hope that the inquiry would not be removed from Italian jurisdiction, asking the government to ban low-level flights, and also « expressing grave concern and regret over a tragedy that was foreseeable and preventable »;

with regard to the activity carried out by the Province before the Cermis tragedy, some documents were of particular importance: the agenda of the Provincial Council of Trento of 9 July 1996, in which concern was expressed over incidents caused by military aircraft and it was asked that steps be taken to avoid them in the future; and a subsequent letter from the acting President of the Province to the Minister of Defense, referring to this agenda. The Minister of Defense answered by providing assurances that the Government would be issuing specific rules to regulate low-level flights. The Province then acted on behalf of the members of the public by taking their complaints to Government level, exhibiting confidence in the institutions that is typical of the inhabitants of these valleys. However, the replies they received hardly seemed adequate and did not take the gravity of the situation fully into account.

On 29 March 2000 the Minister of Defense, the Hon. Sergio Mattarella, was heard. He emphasized the following points:

NATO had played an essential role in ending the East-West confrontation. Italy had always occupied a strategic position and was now contributing to the creation of a new common security system in Europe. The problem, therefore, was not one of eliminating Allied forces, in particular US forces, from Italian territory, whose presence should not be considered a curtailment of Italian national sovereignty, but rather one of finding more appropriate means of regulating the forms taken by this presence and the arrangements governing it;

the framework of agreements regulating the presence of the Allied forces, and American forces in particular, on Italian territory, which derive from the Treaty of Washington of 1949 and the SOFA of 1951, is the following: the Basic Infrastructure Agreement (BIA) of 12 October 1954, which, notwithstanding its high security classification, and in a radical departure from normal procedure, the Government

had made partly available to the judicial authorities responsible for the Cermis case; and the Shell Agreement of 2 February 1995, signed by the Italian Ministry of Defense and the US Department of Defense. This sets out the conditions to be observed in drafting or up-dating the technical arrangements regulating the presence and activities of US forces in individual installations and infrastructures. Since these technical arrangements are not confidential, they will be reviewed in order to define more precisely, stringently and forcefully the spheres of competence, responsibility and control of the national authorities with responsibility for each infrastructure conceded to the US forces. They may also be supplemented by additional confidential protocols regarding technical-operational aspects, which are particularly sensitive from the point of view of military security. The ministry is currently up-dating the technical agreement covering the Sigonella base, which will serve as a pilot agreement for the other infrastructures;

after the Cavalese tragedy, the Italian Government took the following prompt and decisive action: it appointed an Italy-United States Commission chaired for Italy by Gen. Tricarico and for the United States by Admiral Prueher, which drew up new procedures and operational constraints to guarantee maximum flight safety; disbursed compensation for the relatives of the victims and the sole survivor; opened procedures by the Ministry of Defense for compensation for the Alpe Cermis company, the Province of Trento and the Municipality of Cavalese.

On 30 March the Committee heard Gen. Andrea Fornasiero, the Air Force Chief of Staff . Gen. Fornasiero made the following points:

the presence of American forces in Italy is regulated by bilateral agreements signed in most cases in the 1950s and 1960s and currently being reviewed in line with the 1995 Shell Agreement between the Italian Ministry of Defense and the US Defense Department. This agreement marks a watershed in the philosophy underlying military treaties, especially with regard to security classifications, and contains principles for the day-to-day management of bases and infrastructure granted for use by foreign forces. The detailed military agreements are still at the draft stage and have not yet been ratified, since the Minister of Defense has not yet signed the additional protocol to the Basic Infrastructure Agreement (BIA), the first of the new political agreements legitimizing the US presence in Italy;

with the start of operations in the former Yugoslavia in the first half of 1993 and the substantial presence of Allied structures in Italy, and with regard to the environmental impact of this increased activity, the SMA placed further limitations on the scheduling of action, and the number and altitude (no less that 500 feet during the day and 1,000 at night) of authorized flights. It then tightened restrictions on allied aircraft based temporarily in Italy, and notified the NATO commands of the need to reduce both the « time window » in which training flights can take place and the intensity of low-level flight training. It thus took

steps to further regulate a sensitive operational training activity, in full respect of flight safety requirements and the need to keep noise pollution to a minimum, and called upon the recipients to observe these measures scrupulously. In spite of this, a large number of notifications were received from private citizens, sometimes in the form of formal complaints, that gave rise to painstaking investigations. The message of 21 April 1997 (SMA/175), which played an important part in the Cermis affair, was in fact informational; if it had been prescriptive, a NOTAM would have been issued. It was addressed to Vicenza and sent to Bari for information only, since Vicenza controlled all operational flights over Bosnia. On the basis of the agreements the training flights were inserted in the national chain of command and operational flights in the NATO chain. The message in any case regarded environmental impact, not flight safety;

it was necessary to distinguish clearly between operational activity and training activity. Real operations and training for purely national requirements came under the responsibility of the ROCs. At the time of the incident the armed forces were undergoing a reorganization; the command and control structure, previously entrusted to the ROCs of the 1st and 3rd Air Region, had been placed entirely in the hands of the ROC of Martina Franca until the COFA-CO (Air Force Command – Operation Center) at Poggio Renatico could assume full control of flights. The chain of command and control for the use of NATO air forces in the operations in Bosnia , which was implemented by the 5th ATAF at Vicenza through the Combined Air Operation Center, was different. The task of organizing the daily flight activity of the squadrons involved was delegated to the Vicenza command, with regard to both active operations and preparatory training missions for operations in Bosnia. Vicenza could not therefore authorize any training flights: on the basis of the agreements training flights came under the national chain of command. The mishap flight was part of Operation DG but had not been scheduled as a DG mission; it did not therefore seem in any way unusual for authorization to be addressed to Martina Franca, which had no objections since the request had been submitted along with the flights of the 31st FW. The 11 missions carried out by aircraft deployed for Operation DG do not appear to have breached safety rules, otherwise this would have been noted. These missions were part of the 449 low-level missions carried out in the three months preceding the incident, of which 46 were American (84 of these missions, of which 27 American, involved the Province of Trento). Aircraft based temporarily in Italy could carry out a certain number of training missions if these were included in the normal flight plan; authorization depended on whether or not they fell within the authorized percentage limits. They could not be performed if the flight plan was sent to the 5th ATAF but if the normal line was followed it was considered a deployed aircraft authorized to carry out a training mission;

with regard to the flight of 3 February, the altitude envisaged for the leg in which the incident took place was 2,000 feet. Since weather

conditions at the time did not require a change of route or a reduction in altitude to maintain visual contact with the terrain, it must be assumed that the responsibility for the failure to observe the limits lies exclusively with the personnel involved in the incident;

one of the duties of the Commander of Aviano was to check that the flight plans corresponded with the plans for the area as a whole – there was a specific ID code – and that the number of sorties was equal to or lower than the authorized number for the base; he then had to transmit this information to the ROC command in Martina Franca, which deconflicted these routes on the basis of all the messages received. On 3 February the check had been carried out and the flight in question was in fact corrected because the route taken by the previous flight had been indicated in the automatic processing routine. The sergeant major had called the captain, who had authorized the correction. Martina Franca merely checked that the route did not exceed the number of missions authorized for Aviano and did not interfere with other routes, and then authorized the flight;

immediately after the incident, new limits were imposed. The minimum overflight altitude for the Alps was set at 2,000 feet (about 600 meters) above ground level, overflights at altitudes of less than 13,000 feet (about 4,300 meters) from average sea level were banned over an area of about 30 km around the town of Cavalese, and the minimum altitudes over the rest of the country were doubled (with the exception of areas for exercises at sea). More effective control mechanisms were introduced by issuing a « overflight report form » for countrywide distribution; and instructions were issued so that an additional channel could be created for information on military overflights deemed to be irregular, as reported by members of the public or the armed forces. The Cermis incident also highlighted the need for a review of the rules and procedures. The Prime Minister entrusted this to a joint Italy-United States Commission (Tricarico-Prueher), which led to more stringent rules of procedure and tighter restrictions on low-level training flights by American aircraft; these were subsequently extended to all foreign units deployed on Italian territory. These rules included a requirement to designate a military authority who, serving as the reference contact for Italian commands, would be responsible for attesting that aircrews knew the rules governing low-level flights; that the crews were sufficiently qualified and trained to carry out the missions assigned to them; and that flights had been planned in compliance with Italian flight regulations and using Italian navigation charts. For Aviano, the United States designated the Commander of the 31st FW. The flights would have to be inserted in the host airport command's daily flight schedule, which is sent to the COFA-CO for approval. Foreign units permanently stationed in Italy may carry out low-level training flights, as envisaged under existing bilateral and NATO agreements, subject to a ceiling of 25% of authorized weekly flight operations. Squadrons based temporarily in Italy that are authorized to carry out low-level flights may not do so over the Alps. Before any flights over Italian territory the crews

receive a briefing on the low-level rules and procedures from a suitably qualified representative of the Italian Air Force or other Italian armed force or corps, in full respect of the restrictions and provisions contained in the instructions and/or issued through NOTAMs.

On 5 April 2000 the Committee heard the Commander of the military airport of Aviano, Col Alessandro Tudini. Col. Tudini underscored the following points:

the task of the Commander of the Aviano airbase is essentially that of ensuring that the bilateral agreements establishing the limits and constraints governing the American presence on the base are implemented correctly. The sectors in which the Commander may intervene are flight operations in general; air traffic control services (for which the Italian Commander has overall responsibility); monitoring the numbers of American civilian and military personnel permanently or temporarily stationed on the base; local defense and security of the installations; relations with the local civilian and military authorities and the implementation of any specific instructions issued by a superior authority;

after the incident the minimum altitude for low-level flights was doubled; a ban on overflights at altitudes of less than 13,000 feet was imposed over a radius of 30 kilometers in the neighborhood of Cavalese; the need for positive radar contact throughout the entire mission was emphasized, where the conditions of the terrain make this feasible; the compulsory use of Italian charts in planning was confirmed; it was established that any unit deployed on Italian territory must receive a briefing by suitably qualified Italian Air Force personnel on the rules governing low-level flights in Italy. The Tricarico-Prueher Commission also formulated seven recommendations that were adopted by the Italian and US Air Staffs, and have been put in force;

there are two different types of flight activity: flights carried out by the 31st FW, permanently stationed at Aviano, whose presence is regulated by a bilateral agreement establishing the limits and constraints on their space; and flights by the three NATO detachments operating in the Balkans. The former are authorized to carry out training activity on Italian territory, the latter are not: they take off from Aviano but operate outside territorial waters and Italian air space. As far as the activity of the 31st FW is concerned, the Aviano airbase command intervenes to varying degrees and in different roles in the planning and scheduling stages. On the NATO side, the command plays a very marginal role, because these units do not operate on Italian territory. Italy is, however, obliged to provide them with briefing on local procedures, the rules of engagement for operations and the instructions adopted for any exercises being carried out;

On 3 May 2000 the Committee visited the Aviano airbase. A series of explanatory briefing sessions took place. The Italian Commander of the airbase, Col. Tudini, explained how the base was organized, the

principal tasks of each structure and the way the Tricarico-Prueher report was being implemented; Gen. Daniel Darnell, Commander of the 31st FW, spoke briefly about the 31st FW's mission in Aviano; Col. Jeffrey Eberhard, Commander of the 31st FW's operations group, described the procedures followed for low-level flights in implementing the recommendations of the Tricarico-Prueher Commission.

On 10 May the Committee heard Gen. Arnaldo Vannucchi of the Italian Air Force general, who made the following points:

Gen. Vannucchi became Commander of the 5th ATAF in October 1996. In that position he comes under the responsibility of the Commander of the Allied Air Forces for Southern Europe (COMAIRSOUTH) for air operations in Bosnia. These were carried out through the CAOC, which planned and organized operational missions over Bosnia by air units assigned to NATO and training missions (CAT FLAGS and Local Area Orientation – LAO) in preparation for missions in the skies of the former Yugoslavia. All these missions were included in the daily air tasking orders (ATOs) issued by the CAOC. The ATO also included the very low-level missions required by the units assigned to NATO and deployed in Italy to keep their pilots in training for such flights, in accordance with both the national rules for very low-level flights and the restrictions imposed by the Air Staff on the number of flights to be carried out on a weekly basis for each aircraft. Any type of flight operations involving air forces deployed in Italian bases for operations in support of the SFOR had to be authorized by the CAOC. The CAOC of the 5th ATAF was the main point of reference for flights by the units which the various nations had assigned to NATO;

the Commander of the 5th ATAF is an operational Commander, which means that he intervenes in operations or exercises using the resources the nation assigns to him. The forces assigned at that time to the 5th ATAF or NATO fall under his operational control, while command remains in national hands. The operational Commander is extraneous to any questions regarding rules. When they come under the operational control of the 5th ATAF, the aircraft assigned already know what the rules for low-level flights entail. The most that the Commander of the 5th ATAF could do was to point these out to the representatives of the twelve nations during the briefing sessions each morning, and urge them to ensure that all the rules were respected;

the content of the message of 21 April 1997 could not regard any body other than the 5th ATAF, since this was the only structure that could issue flight authorizations, including low-level flights. For this reason, when the message arrived he promptly gave verbal instructions to the effect that the directions laid down by the Air Staff should be complied with immediately. Since the 5th ATAF was the focal point for all the activity of the air units deployed in Italy, when a message arrived for the 5th ATAF it was considered mandatory, prescriptive message for the general as Commander, and was interpreted as an order. That is to say, it was prescriptive for the Commander of the 5th ATAF but not for the others, since they were not involved in the

authorization process. The Commander did not pass it on to the various military bases under his responsibility, because the national staffs of the units deployed in Italy and responsible for applying the order were in Vicenza themselves. Once the message arrived, the Chief of Staff and the director of the CAOC called the national representatives and notified them of the ban on low-level flights. Low-level missions were actually banned the following day. When he called the operations room after the Cermis incident to find out what had happened, the director of the CAOC said that since he himself had communicated the ban on low-level missions, they had disabled the so-called training cell in the computer, where low-level missions ended up; this meant that no authorizations could be issued;

for the missions in Bosnia the CAOC has three screens showing, second by second, the positions of the aircraft. These are constantly up-dated. The fact that flights are at high or average altitude in the outward journey towards the territory of the former Yugoslavia, in the skies over the former Yugoslavia, and on the return journey, facilitates the operation; there is also an AWACS keeping them under constant control. However, where low-level flights are concerned Italy's mountainous terrain makes it very difficult for radar to follow aircraft throughout the flight. It is not possible to follow them moment by moment. Monitoring is therefore somewhat irregular;

with regard to the flight of 3 February 1998 the American Commander was in breach of the rules since, although he was aware that an application to the 5th ATAF for a low altitude mission would have been rejected, he inserted one anyway in the daily flight schedule sent to Martina Franca. This did not arouse any suspicions in Martina Franca, since the request came from a permanent unit, the 31st FW, which was authorized to make such flights. Once this step had been taken, the flight authorized by Martina Franca appeared to all intents and purposes to be a regular daily flight authorized with its own ID code, which did not raise any problems for the radar controls. The general was not aware of the « scam ».

On 24 May 2000 Gen. Leonardo Tricarico, military adviser to the Prime Minister and leader of the Italian delegation on the Tricarico-Prueher Commission on the subject of safety, made the following points in his hearing before the Committee:

the Tricarico-Prueher Commission was set up in March 1999 following an agreement between Prime Minister D'Alema and President Clinton, who delegated their respective defense ministries to carry out a critical evaluation of the rules regulating flights over Italian territory with a view to establishing safety standards and provisions that would better ensure that the essential principles underpinning flight safety were respected;

the report itself included proposals for operational and organizational measures that would substantially modify the regulatory framework governing flights by foreign aircraft on Italian territory;

from the operational point of view, the Commission proposed that new training procedures be adopted for low-level flights by US aircraft in Italian air space. As a rule, temporarily deployed units would not be allowed to conduct such flights. Any exceptions would be assessed and authorized on a case-by-case basis. For units stationed in Italy, a ceiling of 25% of weekly authorized flight operations would be introduced for this form of training. This was undoubtedly the most significant provision because it effectively suspended low-level flights over Italian territory for foreign units based temporarily in the country;

from the organizational point of view, the Commission formulated a number of proposals: that one person be appointed in each US unit deployed in Italy to certify that flights in Italy were carried out in full respect of the relevant Italian rules and laws (this measure is particularly significant because it assigns responsibility to a single individual and makes it easier for Italy to monitor the situation, while providing the Italian side with fuller information on the extent to which the rules on the scheduling and conduct of flights are being respected); that Italian officials should be posted with each of these units to optimize the flow of information and facilitate communications (this measure was intended to make the exchange of information and instructions less bureaucratic and formal and to facilitate cooperation between the Italian and American sides, thereby enhancing the integration of the units on Italian territory); that a joint Italian-US commission should be set up for a periodic examination of all flight safety issues; that flight procedures should be reviewed periodically to ensure that they met any new requirements; that an Internet site should be set up where up-to-date information on the theatre of operations and the rules regulating flying activity in Italian air space would be posted (this measure has not yet been implemented); and, finally, that the Italy-United States bilateral agreements regulating the use of bases on Italian territory by the United States be reviewed and up-dated to bring them more closely into line with the current needs of the two countries;

as the Commission's recommendations have nearly all been implemented, it is felt that the system is now better protected against the possibility of incidents connected with flight exercises over national territory;

the problem of sovereignty has never in fact been an issue: indeed, whenever Italy has forcefull asserted its sovereignty, it never been contested;

with regard to the situation preceding the Cermis incident, the rules were already in place; the fact that they were not respected does not mean that the rules themselves were flawed in any way. In the light of events, the bilateral Commission sought to establish further rules that would make the recurrence of such an incident far less likely. The suspension of low-level flights for units based temporarily in Italy was justified by the fact that it was not possible for anyone, in difficult, complex terrain such as Italy's, to acquire the overall body of knowl-

edge and custom that would enable them to fly in a fully professional manner in Italy. The measures adopted were therefore an improvement on rules that were in any case already sound;

the chain of command was undoubtedly weak and the structure had gaps, as shown by the fact that the flight of 3 February was inserted in a daily flight schedule when it should have been included in a task order handled by the NATO command in Vicenza. Since the flight did take place, the structure evidently accepted it, so for this very reason a closer surveillance system based on clear, detailed and up-to-date agreements, with intermediate levels of supervision and a greater assumption of responsibility by the aircrews, can only improve safety conditions in the future;

the fact that the message of 21 April 1997 (SMA/175) bore an « INFO » address meant that it was not conveying a mandatory command. The question that needed to be answered here was why the message should have been sent to some recipients for action and others for information.

On 31 May 2000 Gen. Mario Arpino, Chief of the Defense Staff, was heard. He made the following points:

as he had been Chief of the Air Staff at the time of the incident, he was reiterating the statements made during the interview with the Military Prosecutor's Office of Padua, to the effect that the message of 21 April 1997 (SMA/175), which had played a central role in the affair, was not mandatory for the NATO authorities to which it was addressed, and even less so for the national bodies to which it was addressed merely for information. This message had merely proposed solutions designed to reduce the environmental impact caused by the proliferation of low-level training flights and was not in any way intended to deal with problems of flight safety. Its aim had simply been to come some way towards meeting the demands of the local population. If the intention had been to issue orders, this would have expressly required the COA/COM and the Commander of Aviano to reject any low-level flights directly, in derogation from the normal staff organization schedules;

in the aftermath of the incident and the wave of emotion it aroused, the message was interpreted as having been prescriptive, probably because of the strong sense of guilt over the failure to interpret it in more restrictive terms, even at the cost of stretching its meaning and spirit. This interpretation was shared by various officers, including at senior level, and can probably explained by the fact that they only had a partial view of the issues. Two major categories need to be kept distinct: the NATO missions in Bosnia, which could be either NATO or national and which therefore passed through the CAOC at Vicenza, and all other missions carried out for different reasons (checkflights or periodic training flights). These had nothing to do with NATO and Bosnia and were routinely inserted in the daily flight schedule, which was authorized by the COA/COM at Martina Franca.

Vannucchi and Tricarico, being former NATO Commanders, had probably based their reasoning on a NATO point of view: their task was to manage CAOC missions rather than flights inserted in the daily flight schedule. And as the mission that led to the disaster was a CAOC mission, if it been processed through their computer programs it would have been rejected and never authorized. The fact that the flight was included in the flights of the 31st FW can therefore be explained by the circumstance that all the Aviano missions were coordinated by the 31st FW;

responsibility should therefore be sought in the 31st FW's failure to ensure that sufficient information was available on the rules and regulations that the crews were and are required to apply. This failure to follow the procedures precisely should not be ignored, even if the immediate cause of the tragedy was a lack of discipline on the part of the pilot;

the shortcomings of the agreements stipulating the powers of the Italian Commander of Aviano were identified after the event by the Tricarico-Prueher Commission, which drew up a list of further initiatives to step up preventive flight control and safety measures. It would not, however, have been possible to identify such measures beforehand as the rules and flight safety norms were in any case precise and detailed. If these rules had been respected, even the minor ones, the tragedy would not have occurred;

with regard to the legislative framework, the following agreements should be kept in mind: the Shell Agreement of 1995, which derives from the Basic Infrastructure agreement (BIA) of 1954, which regulates Italy-US relations with regard to the use of Italian bases granted to American forces in Italy. The BIA does not envisage sub-agreements for the three armed forces, but rather the drawing up and revision of the Technical Arrangement (TA) for each base in question. These technical agreements cannot be formalized without political approval, which as things stand at present will take the form of additional protocols to the BIA. The BIA is therefore the fundamental agreement, while the principle of national sovereignty and the way it should be applied will be shaped by reviews of, respectively, the additional protocols to the BIA on the political side, and the TAs deriving from the Shell Agreement on the military side. These protocols and the TAs must also contain and implement the findings of the Tricarico-Prueher Commission, which means stricter rules and more precise responsibilities for both the US and Italian commands. However, although it enhances Italy's ability to monitor permanent US bases, these legislative measures do not change – because no such change is needed – the principle already set out clearly in the BIA, which is that the flight operations of units stationed on Italian territory must comply with national rules and laws. This was already envisaged and should in itself have been sufficient to avoid the tragedy;

the second agreement to bear in mind is the MOU of 15 December 1995 between the Ministry of Defense and the Supreme

Headquarters Allied Powers Europe (SHAPE) regarding the provision of logistical support to external forces transiting or temporarily based on Italian territory. This MOU, which served primarily to formalize the logistical and financial aspects of the activity of the units of all the nations taking part in the operations in Bosnia and operating on Italian territory, was extended to cover subsequent operations, including the current SFOR and KFOR, in Bosnia and Kosovo respectively. Three sub-agreements to this MOU were then drawn up for the three armed forces. In the case of the army and naval forces, these were finalized, since they were circumscribed and limited in scope. However, the agreement drafted for air forces, which was more complicated, has not yet been signed. The real reason for the Air Force's failure to sign was and is the systematic reluctance of our foreign counterparts to accept the Italian proposals, which envisage undertakings that they do not always, or fully, agree with. A partial solution has been found, in the form of local arrangements between the Italian Commander and the Commander of the guest unit to define logistical and financial requirements in the various bases. This procedure was followed in all the bases with the exception of Aviano, for the simple reason that the additional aircraft, or the aircraft deployed for the Bosnia operation, used the permanent American structures already regulated by the BIA. This is the underlying reason for the different responsibilities of the Italian Commander of Aviano with respect to the other Italian Commanders. Therefore, the reason the agreements have not been signed is not that the Air Force was to a greater or lesser degree subordinate to the Americans, and while it is true that if they had been finalized the Italian Commander of Aviano would have had more authority, this would still not have prevented the sort of serious failure of discipline that caused the tragedy, as the agreements in question mainly covered logistical issues;

reports of low-level flights were often based on the impressions of members of the public, who rely on their own sensations and the noise and speed of the flights to form estimates that had proved on several occasions to be inaccurate. This is because they do not have either the equipment or the experience to measure the altitude of overflights or discriminate between 500, 700 or 1,000 feet in difficult mountain terrain. However, the Air Force has devoted considerable personnel and resources to investigations and inquiries aimed at providing answers to all the notifications of possible incidents. In order to enhance training, the *Istituto Superiore per la Sicurezza del Volo* (Flight Safety Institute) was set up in 1995. This provides training for military and civilian personnel in flight safety and accident prevention, and in investigation procedures;

as regards the extent to which the Tricarico-Prueher recommendations have been implemented, the Internet site had not yet been set up and the TAs still have to be fully updated. The agreement has not yet been renegotiated at the military level, since the Sigonella agreement, which will act as template for all 21 agreements on American bases, has not yet been finalized.

On 7 June 2000 the Committee heard Col. Orfeo Durigon, of the Italian Air Force, who testified as follows:

Col. Durigon was Italian Commander at the Aviano base from 29 September 1997 to 29 July 1999. His principal task was to supervise the application of the bilateral agreements: the Technical Agreement and the Memorandum of Understanding, dating respectively from 1994 and 1993. He also had the following additional duties: to guarantee the security of the airport, integrating Italian and American resources for its defense; act as liaison officer between the allied military authorities, the civilian authorities and external law enforcement authorities; handle air traffic control, using mixed American and Italian teams, in the air space immediately surrounding the airport; provide any support requested by the units, if possible, and consult his superiors if not; and ensure that all the general airport services functioned properly. His tasks were purely logistical. He had no operational tasks, these being the responsibility of the American Commander, who had a flight unit. The Italian Commander did not have a flight unit and was not responsible for training allied aircrews, a task entrusted to the American Commander He had been appointed to the Command Investigation Board (CIB) that investigated the Cermis incident, where he acted principally as an observer, contributor, and interpreter; he could also put questions and had full access to documents. The CIB had tried to question the pilot, who had availed himself of the right to remain silent, except to express his condolences and state that he had not deliberately broken the rules. Col. Durigon recalled that the last page of the summary of the report by the CIB contained an assertion that the pilot had deliberately broken the minimum altitude rules in not one but two legs of the flight;

with regard to the aircraft's instrumentation, this was not a black box in the modern sense of the term, but an older version which provides mainly tactical information on electronic data-acquisition during electronic warfare. The data were not precise, which meant that calculations were always required to determine altitude above ground level;

with regard to the relationship between the Marines and the command of the 31st FW, any American aircraft that landed at Aviano came immediately under the responsibility of the American Commander of the 31st FW and received information directly from him, even if he belonged to another branch of the military. These powers were reinforced by the Tricarico-Prueher Commission, but the MOU already states that the US Commander is responsible for all American flight activity. However, Italian sovereignty over the base had never been placed in doubt and a climate of full cooperation had always reigned between the Italian and American commands. In briefings to introduce the Flight Wing to guests, the American Commander would show them a photograph of the Commander, describe him as the Italian Commander of the Aviano base, and briefly illustrate the organization of the base;

Col. Durigon pointed out he did not have any relationship with the 5th ATAF and so was not aware of the orders it issued to units temporarily deployed in Italy. As Commander of the base, he belonged to a single national chain of information transmission; one of his tasks was to transmit information on national training activity for approval by the Martina Franca COA/COM. This chain was respected. If other orders were issued he would not have known about them, as he was not part of the NATO information chain and did not receive anything from the 5th ATAF. He knew, however, that since 1991 training activity had been authorized for units deployed in Italy and that this had to follow the normal Italian procedures: the flights had to be inserted in the DFS, which was exactly what happened;

in the four months preceding the incident there had been four requests from the higher authorities for information on irregular flyovers. The procedure was that the ROC sent the unit the request for information and the unit checked the flight schedule for the day in question to verify who could transit that area. If it was confirmed that someone was authorized to be in that area at that time, the unit consulted the Americans immediately and asked for a report on the flight in question. The Americans supplied the report, which was sent to the ROC. In the four months in which he was Commander before the incident, he received no telephone notifications from members of the public or the authorities. He received no information that could be correlated with American activity, until the day of the incident. Afterwards the Americans suspended low-level flights for nearly a year.

On 9 June 2000 a Committee delegation led by the Deputy Chairman, the Hon. Luigi Olivieri, and composed of the Hons. Boato, Saonara, Fontan, Mitolo and Detomas, went to Trento to attend an open hearing with Giovanni Trettel, Sergio Vanzo and Father Angelico Boschetto, who described episodes of low-level flights over the Val di Fiemme. The Deputy Prefect at the police headquarters of the Government of Trento, Stelio Iuni, who also testified at the open hearing, provided the delegation with documentation relating to reports of low-level flights subsequent to the incident of 3 February 1998. The following elements emerged from the hearing:

Giovanni Trettel, who had been director of the Società Alpe del Cermis since its establishment, gave an eyewitness account of an episode that took place between 1967 and 1968. A fighter plane had passed below the cables of the car, which was not moving at the time. The formal protest sent to the Air Force's North-Eastern Command in Padua produced no results;

Father Angelico Boschetto reported that in autumn 1997, from the window of the rectory of the parish of Molina di Fiemme, which is situated 50 meters above the village, he had seen the upper part of the wings of a military aircraft. A similar episode, of which he had again been an eyewitness, had taken place a year earlier, but very low-level flights (at between 50 and 100 meters from ground level) were frequent (about two a month), especially after periods of bad weather.

Father Boschetto also reported the episode – which he had been told about by a recently deceased member of the parish, Valeria Perghel – of a very low-level flight over the Lago di Stramentizzo;

Sergio Vanzo, municipal councilor in Cavalese since 1978, had submitted a question to Mayor Gilmozzi in 1991 in which he pointed out the danger of the flights and the complaints of the resident population. After the Cermis tragedy he submitted a new complaint to the Public Prosecutor's Office, since no steps had been taken even though the Mayor had been warned of the danger. Vanzo also pointed out that the problem of low-level flights had already been raised with the previous administration in 1987-88, under Mayor Fontana, and one or more telegrams had been sent to the North-Eastern Command;

after confirming that he had had direct knowledge of the existence of low level flights in the valleys of Trentino, Stelio Iuni, Deputy-Prefect of Trento, exhibited documents (two photocopies of letters and four of telegrams) sent by the Carabinieri to the Prefect's office following reports by members of the public.

On 18 July the Committee heard Giorgio Fontana, mayor of Cavalese from 1978 to 1990. He made the following points:

at 15:15 hours on 14 October 1981, a fighter plane passed not more than 100 meters from the village of Masi di Cavalese, flying under the cableways of the Cermis cable car. He had witnessed this event personally. At the suggestion of the local Carabinieri, he sent a complaint to the V Territorial Command in Padua but received no response. Two years later, in July 1983, a similar incident took place and was reported by the town's works foreman. Mayor Fontana contacted the 1st Air Region in Milan, which replied that no military aircraft had transited the Val di Fiemme that day at the specified time. After this episode, however, no more low-level flights took place in Val di Fiemme until 1990.

After this intense program of hearings and missions, the Committee decided that further inquiries should be pursued in the United States, and opened a series of informal contacts with the American Embassy. These culminated with a meeting between the Chairman Iacobellis, the Deputy Chairman Olivieri and Ambassador Thomas Foglietta on 19 October 2000.

In view of the complexity of the arrangements required to organize the mission it was found necessary to extend the original term of ten months envisaged by Article 6, paragraph 1 of the resolution establishing the Committee to allow it to complete its investigations. This term would otherwise would have expired on 10 October 2000. A proposal for a three-month extension, signed by nearly all the members, from both the majority and the opposition, was therefore submitted and approved by a large majority on 10 October 2000.

A delegation led by Chairman Ermanno Iacobellis and composed of deputies Luigi Olivieri, Cesare Rizzi, Marco Boato and Giuseppe

Detomas then traveled to Washington, where a series of meetings were held with American political and military authorities on 20 and 21 November, following a previously agreed agenda.

On 20 November the Committee met the Secretary of the Navy, Richard Danzig and Under-Secretary Robert Pirie.

The others members of the American delegation were: General Michael Williams, Assistant Commandant of the Marine Corps; General Fred McCorkle, Deputy Commandant Aviation of the Marine Corps; Colonel Bruce Albrecht, USMC Aviation; General Joseph Composto, Judge Advocate of the Marine Corps; Colonel Kevin Winters, Judge Advocate of the Marine Corps; Colonel Gary Sokoloski, Judge Advocate of the Marine Corps; Captain Jim Norman, Judge Advocate of the Navy; Captain Jane Dalton, legal expert to the Commander Joint Chiefs of Staff; Lieutenant Steve Williams, Department of Defense (OSD, Italian Desk); John Reidy, EUCOM (Air Operations); and Major Maria Carty, EUCOM (Italian Desk).

The Committee noted with regret that both the records of Command Investigation Board and the records from Ashby's trial left many questions unresolved, especially the question of whether, under normal conditions, the US air forces had adopted adequate safety procedures.

The Committee also acknowledged that the Marines Corps had reacted attentively and decisively to the tragedy but pointed out that it could not consider its task to be complete without taking into account the information and evaluations produced by the administrative inquiries conducted by the Marines.

The Committee then asked the American authorities if they could have a copy of the records of these administrative inquiries and if they could meet Major General M. D. Ryan and Brigadier General W.G. Bowden, who had conducted them, to hear their direct view of the facts that had emerged. The Committee also repeated its request for the records of Ashby and Schweitzer's trials on the charge of obstruction of justice and asked if the American authorities would consider whether a flight safety investigation should be conducted under the terms of the NATO standardization agreement (STANAG 3531), involving if possible the waiver of the United States' right to conduct its own investigation in lieu of the NATO inquiry.

The American authorities renewed their expressions of regret over the Cermis incident, and their condolences for the victims. They stressed their willingness to cooperate to throw full light on the affair, while reserving the right to examine the requests submitted and to reply promptly. In this sprit of cooperation, they informed the delegation that they had already sent the Italian Embassy in Washington the records of the trials of Captains Ashby and Schweitzer.

The American delegation then illustrated separate reports regarding: the Cavalese incident and the action undertaken to identify and punish those responsible; the problems regarding compensation for the victims, the legislation in force pursuant to the Treaty of London and the procedures established to make the payments; the measures adopted immediately after the incident to guarantee flight safety and improved coordination between the Italian military authorities and the

American forces, and the establishment and working methods of the Tricarico-Prueher Commission; the recommendations formulated by the Tricarico-Prueher Commission to increase flight safety and the action taken by the Americans to implement them.

On the subject of the recommendations formulated by the Tricarico-Prueher Commission, the Parliamentary Committee repeated their request to include these in the context of the Shell Agreement relating to military bases hosting American forces.

On 21 November the Committee met the Deputy Chairman of the Joint Chiefs of Staff Richard Myers, who emphasized Italy's essential role within NATO, as illustrated by the recent events in Kosovo. He then expressed his regret, as an airman, over the Cermis incident and undertook to provide a prompt response to the requests put by the Committee, bearing in mind the tight time-scale imposed by the imminent closure of the legislature.

In a letter dated 14 December 2000, the American Ambassador Thomas Foglietta conveyed his government's response to the requests formulated in Washington. After reiterating its full willingness to provide technical and legal assistance to examine the documentation already sent to the Committee, it ruled out any possibility of providing further documentation since American law, and particularly the legislation regarding the protection of personal data, would not allow it. It also ruled out a safety investigation under the terms of STANAG 3531, since this eventuality had already been assessed and it had been decided to conduct an investigation in which the Italians could participate. In the view of the US government it would not therefore be productive to carry out an inquiry of this nature at this time.

On 12 December 2000 the Committee again heard Col. Orfeo Durigon, Commander of the Aviano airbase at the time of the disaster. After the mission to the United States, the Committee felt that he should testify again to shed further light on his role on the US Command Investigation Board that had investigated the mishap immediately after it occurred.

Col. Durigon specified the following points:

he had been called to take part in the Board by the Chief of the Air Staff, Gen. Mario Arpino, and had taken part in the proceedings on an equal and independent footing with the other members;

he recalled that immediately after the incident the Americans had opened a restricted inquiry, the task of which was to gather evidence while awaiting the start of the main inquiry. He had not taken part in this and did not know what information had been collected. He considered, however, that in view of the short time available, this had been limited to statements taken while the event was still fresh in people's minds;

immediately after the incident, when news of the emergency came in, the pilots did not say they had hit the cableways but merely referred in generic terms to a hydraulic emergency. When he rushed to examine

the aircraft with the American head of the operations office, he realized that it had hit a cable. He concerned himself with the safety of the aircraft as it appeared it might catch fire since it was losing fuel and hydraulic fluid. Col. Durigon learned of the disaster from the Televideo service, about an hour later. The pilots did not reply to questions during the Command Investigation Board. They merely made statements and apologies that were very generic and similar in tone, without providing any information that was of use to the investigation. The work of the CIB, which lasted about a month, had started out with meetings as often as three times a day. Col. Durigon again recalled that each member of the CIB had equal weight and openly expressed their opinions. He felt that Gen. DeLong had handled the proceedings very well. Gen. DeLong and the other members of the CIB all concluded that the aircrew had deliberately broken the rules. He denied that he had been subjected to any form of pressure during his work, and was not aware of any other members of the CIB having been subjected to undue interference. With regard to his contribution to the inquiry, he remembered pointing out the high speed of the flight, 550 knots, as confirmed by calculations carried out later.

PART III

THE INQUIRIES CONDUCTED AFTER THE TRAGEDY

1. THE ADMINISTRATIVE INQUIRY BY THE ITALIAN AIR FORCE

1.1 Introduction

The Committee of Italian Air Force officers convened by the Command of the 1st Air Region on 4 February 1998 (known as a technical inquiry) drew up its report in accordance with STANAG 3531 on investigations of accidents/incidents involving military aircraft from two or more NATO nations.

This Committee worked in conjunction with its US counterpart, from which it obtained information as required. It did not, however, obtain copies of the documentation consigned to the official records, although it had free access for consultation purposes.

The Committee's investigations covered its fields of interest, where compatible with the procedures of the Italian judicial investigation, taking due account of the fact that many of the objects, materials, and documents had been seized. The investigation was affected by the fact that the crew members had opted to exercise their right to remain silent under questioning about the event.

The Committee therefore recognized that it could not obtain certain fundamental information from the parties directly involved, such as data on the planning and execution of the mission, and that it could not ascertain the exact dynamic of events or the conduct of the crew members during the mission.

1.2 Summary of the Air Force investigation report

The report contains the essential data on the most significant parts of the mission denominated « EASY 01 »: from pre-flight briefing to take-off from Aviano, the impact with the cableway and the emergency landing. It includes the following points:

the pre-flight briefing for the aircrew by the pilot (Capt. Ashby) and the navigator and electronic counter-measures officer (ECMO1 – Capt. Schweitzer) followed normal procedures, according to the testimony of the Operations Officer of the VMAQ-2 Squadron, who was present;

the pre-taxiing operations, which went smoothly, the takeoff (albeit six-minutes late with respect to the scheduled time) and the radio contacts between the crew and the air traffic control center all proceeded regularly;

the aircraft's collision with the cableway severed the cables immediately and caused the fall of the gondola and the death of the twenty persons on board;

in spite of the damage to the aircraft the crew were able to keep it under control for the return to base under emergency procedures.

The Committee gathered information on various organizational, technical, and training-operational issues, which are set out below.

From the organizational point of view the EASY 01 mission, which consisted of a standard low-level route known as AV047 BD, was planned on 2 February 1998 for the following day (with take-off at 13.30 hours and return to Aviano after about 46 minutes), inserted in the daily flight schedule (DFS) of the 31st FW and approved by the COA/COM at Martina Franca. Route AV047 BD is included in the SOP-ADD 8 directive and envisages altitudes of 500 feet AGL until the first turning point, then an ascent to 2000 feet and maintenance of this altitude for the rest of the flight.

The Committee also took note of the national provisions on the restrictions on low and very low-level flights, as indicated in the messages of 16 August 1997 from the 1st ROC of Monte Venda (Albano Terme), of 12 December 1990 from the Command of the 1st Air Region, and of 12 April 1997 from the Italian Air Staff (SMA 322/0175) (which referred to aircraft belonging to foreign units deployed in Italy for operations in the former Yugoslavia), and the US regulations prescribing a minimum altitude of 1000 feet for aircraft such as the EA-6B which were not equipped with « Heads Up Display » (HUD) apparatus.

We feel that some observations are in order with regard to SMA/322/00175.

In its observations on the organizational and training-operational elements of the inquiry the Italian Air Force Committee referred to this message as an « instruction » *(disposizione*). The technical report states that an « instruction issued by the Air Staff in message SMA/322/00175/G39/SFOR (NATO Confidential) of 21 April 1997 establishes that no aircraft from foreign units operating from Italian air bases in support of the operations in the former Yugoslavia may conduct low-level training missions over Italian territory or national territorial waters ». This is not a faithful rendering of the original English text, and the meaning and purpose of the message may have been misunderstood. In particular, it seems that the Committee did not take into account the fact that the message was addressed for action to senior NATO commands, for whom it was not however formulated as being mandatory. The Committee did not explain which elements in the message would have led to its being classed as an instruction. This status therefore appears to have been taken for granted, with no need of explanation. Nor did the Committee refer to the commands or bodies that might have been addressed as recipients for action (i.e. those commands/bodies that were mentioned by name, and required to apply the instruction, comply with it and ensure that others also did so).

At the hearing of 31 May 2000 the message in question, which has been interpreted in various ways, was judged as « not prescriptive » by the Chief of the Defense Staff and former Chief of the Air Staff Gen. Arpino, who spoke at some length on the subject and clarified the various aspects involved. Finally, it appeared that neither the 31st FW nor the VMAQ-2 Squadron deployed at Aviano had either received or knew about the message.

With regard to the technical aspects, the Air Force report observed that from the date of redeployment to Italy the EA-6B aircraft involved in the incident, number 16045, assigned to the VMAQ-2 Squadron, had clocked up about 245 flight hours; it had undergone the required inspections and maintenance, and no problems worthy of note had emerged. The aircraft was safe for flight and ready for the type of mission it was required to carry out. It was in this condition at the time of take-off and up to the moment of the mishap (if this had not been the case, the crew would have interrupted the mission).

The mission recorder, which processes and records flight information (taken from an inertial navigation system with a tolerance of 3 nautical miles per hour of flight and from a barometric system), was fully functional until the moment of impact. The data from the recorder provides, with a certain degree of approximation, a trace of flight path followed during the flight, the speed and the altitude (above sea level).

With regard to the training-operational aspects, the crew were found to hold the appropriate training qualifications. The pilot had not performed any low-level flights in Italy and his last such flight dated from July 1997.

The ECMO1 was the only crew member with low-level experience over Italian territory. As navigator, he had taken part in two previous navigation training missions, but not on route AV047 BD.

The crew members had access to SOP ADD-8, which contained detailed information on the routes and altitudes envisaged for AV047 BD. These included a minimum altitude of 2000 for the entire flight, with the exception of the first leg.

From the medical/personal point of view, the psychological and physical fitness of the pilot and the other crew members for flight, for the mission under consideration and for the tasks assigned to them was also ascertained.

The crew of EASY 01 was shortly due to return to the United States, having spent about six months in Aviano. The exception was Capt. Seagraves (ECMO3), who had just arrived with a contingent of Marines from another unit scheduled to replace VMAQ-2.

The pilot, Capt. Ashby, was due to transfer to F18s on his return to the United States.

The Air Force Committee found that: the meteorological and environmental conditions were satisfactory over the entire route covered by the training flight; no malfunctions or technical faults that might have adversely affected the flight had emerged, nor had any problems been found that might have affected the use of the radio equipment; the impact with the cable took place at an estimated altitude of between 300 and 400 feet from the valley floor; the US crew

was not authorized to fly over Italian territory at altitudes of less than 2000 feet (or less than 1000 feet, according to internal Marine Corps instructions).

Considering that the incident was probably the result of incorrect execution of the planned flight, at least in the stretch where the impact occurred, and the long period that had elapsed since the pilot's last low-level flight and the unfamiliar environment in which he was operating might have influenced the conduct of the flight, the Commission concluded that all the information in its possession led it to conclude that the cause of the incident lay in the actions of the crew, in particular the breach of regulations and instructions that required the crew to fly at no less than 2000 feet AGL. Finally, the Commission, considering the dynamic of the incident to be clear, saw no need to draft a formal technical report, but reserved the right to introduce additions to the existing report.

1.3 Considerations

In conclusion, this Committee considers that the report was structured and developed properly in accordance with the methodology adopted. However, it was too concise, especially because of the very limited scope of the issues it was able to explore. The investigation conducted by the Italian Air Force Commission, designed primarily to discover the true nature of the events for flight safety purposes, was not able to touch upon, and therefore examine closely, subjects, points and aspects that were of fundamental importance to the reconstruction and examination of the EASY 01 mission: from the pre-flight stage, to the mission itself, to the crucial moments that led directly to the tragedy. As noted at the outset, the Commission itself recognized that it had not been able to investigate certain aspects of the conduct of the crew (on the ground and in flight) and the exact sequence of events. This was because the crew members, assisted by their respective defense attorneys, elected to exercise their right to remain silent.

With regard to the parties investigated, the report contains useful and worthwhile information, especially where certain, objective data are concerned.

Even taking these limitations into consideration, the hypothesis formulated by the Air Force Commission regarding the cause of the incident, which can be attributed to human conduct and specific breaches of regulations and instructions, is valid, albeit overly-succinct.

On the whole, however, the report was not considered to be satisfactory, especially owing to its incompleteness.

2. THE TRENTO HEARINGS

2.1 The dynamics of the incident and its precedents as reconstructed by the investigations of the Public Prosecutor's Office of the Court of Trento

The inquiry was opened on the basis of a crime report from the Carabinieri of Cavalese. From an examination of the documentation

and the hearing before the Commission of the Public Prosecutor for the Court of Trento, Franco Antonio Granero, and the Deputy Public Prosecutor for the same court, Bruno Giardina, which has been reported separately (see Part II above), it emerged that in the immediate aftermath of the incident the seizure of the aircraft, various documents and other material was ordered. The seizures were carried out by the Carabinieri and subsequently confirmed by the examining magistrate after it had been ascertained that the Aviano base, which is not a NATO base but rather a base used by the United States in Italy, is in any case subject to Italian sovereignty.

It should be specified that the EASY 01 flight was not a NATO flight but a US training flight. This had been confirmed by Gen. Wesley K. Clark (see Part I above), Commander in Chief of the American Forces in Europe (as well as NATO Commander for Europe), who, in turning down the Italian request to waive the primary jurisdiction claimed by the United States, stated expressly that the flight had taken place in the performance of an official duty, as the crew were carrying out their official functions at the time of the incident. A confidential letter of 6 February 1998 addressed to the Ministry of Justice confirmed that the EA-6B was carrying out a US training mission.

The Public Prosecutor's Office then carried out the procedures for the identification of the victims, the hearings of persons informed of the facts, the collation of the relevant domestic and international legislative texts and the examination of the mission data recorder. In this way, with the help of technical consultants (especially the technical report by the engineers Casarosa, Dalle Mese and Scolaris), they were able to reconstruct the events of the incident.

It emerged that the crew had failed to follow the flight plan in several ways:

a) although they had respected the overflight route at the reference points, in the stretches between these points they had strayed beyond the tolerance limits, especially in the stretch between Riva del Garda and the Cermis cableway (a divergence of up to 8 nautical miles);

b) they had flown over a population center (Cavalese) at less than the safety distance of one nautical mile;

c) they had flown below the permitted minimum altitude and above the permitted airspeed: at the moment of impact with the cables the aircraft was traveling at about 110 meters AGL and about 540 knots, or 1000 km/h, while the permitted speed over Italian territory for aircraft flying at below 2000 feet is 450 knots. Lt. Col. Muegge and Maj. Shawhan had told the US Command Investigation Board that for training missions no VMAQ-2 crews were authorized to fly at altitudes of less than the permitted 1000 ft, as set out in the Marine Corps Training and Readiness (T&R) manual.

The crew had committed these breaches of their own free will, not as the result of any equipment malfunction, since the equipment, including the altimeter, had all been in perfect working order; before

take-off the aircraft had been classed as safe for flight. The only instrument that had previously been found to be faulty – the G-force indicator – had been replaced by a new one that had passed the required tests on the ground shortly before take-off. The proper functioning of the altimeter had been demonstrated not only by the technical tests carried out during the gathering of evidence and by the technical report carried out on behalf of the Italian Air Force Commission, but also by the testimony of the American mechanics and military personnel and the maintenance records of the Prowler in question. Not only was it easy to visually verify that the plane was flying at very low level, but the BOAT manual published by the Italian Air Staff, which governs low-level flights, also states that in the case of malfunctioning of the RadAlt the mission must be suspended immediately and the aircraft must climb to at least 2000 feet. In short, in the opinion of the Public Prosecutor's Office of Trento, the crew – in outright contempt of their orders – had been in full breach of the rules governing their flight path, altitude and speed as envisaged by the flight plan, the technical safety rules and the common rules of diligence, prudence and expertise.

The recording of the communications between the aircraft and the air traffic control center did not provide any significant evidence other than the notification of the emergency only after the collision with the cables. The impact had taken place with the plane inclined to the left at an angle of about 40-45° and longitudinally downwards, at an unspecified angle.

The impact had therefore taken place while the aircraft was veering sharply to the left, which suggested that the pilot had not noticed the cableway, or that, having noticed the obstacle, he had attempted an emergency maneuver, or that he was recklessly attempting to pass below the cables (since the aircraft, which had entered the valley from Lago di Stramentizzo, was already traveling at low level, on average between 270 and 310 meters, and had dropped even lower in the vicinity of the point of impact) and that, realizing that the gondola was approaching, he had attempted a sharp turn to the left.

The Public Prosecutor's Office of Trento agreed with the consultants' findings and, in the application for committal for trial lodged on 26 May 1998 and signed by Mr. Granero and Mr. Giardina, concluded that the mishap would not have taken place if the crew had complied with the flight path, speed and altitude set out in the flight plan. However, the Public Prosecutor's Office ruled out any suggestion that the lack of markings indicating the presence of the cableway, making it visible from a greater distance, had contributed to the accident, an opinion which Messrs. Casarosa, Dalle Mese and Scolaris did not share. The Public Prosecutor's Office's reasoning was that the colored balloons and other signs normally used for this purpose would not have been noticeable any earlier, or more easily, than the yellow gondola of the cableway, which the pilot certainly could not have had any difficulty seeing given that weather and visibility conditions during the flight and at the moment of impact were excellent and the pilot had

the sun behind him. It also emerged from the statements given by the control tower personnel at Aviano that the Prowler pilot had acknowledged that he had noticed the yellow cabin of the cable car a few seconds before impact.

For this reason the Public Prosecutor ruled that the references to the lack of markings on the cableway should be separated from the records.

It must be added that the American charts on board the aircraft did not show the Cermis cableway. This, however, would only have played a minor role in causing the tragedy, not only because the route could have be followed even from an out-of-date chart (if the flight plan had been respected the aircraft would never have found itself on a collision course with the cableway), but also because this was a contact flight. Visual navigation was in fact inevitable to some extent, since in low-level flights with mountainous terrain on either side, as was the case in this area, radar is of little help since it registers conflicting AGL signals.

The inquiries of the Public Prosecutor's Office of Trento also discovered numerous precedents for this type of conduct. In just the three months preceding the incident, 499 low-level flights had taken place in Italian airspace (of which 46 were American). Of these, 84 involved the Province of Trento (and of these, 27 were American). There had been 73 complaints, some of them formal, concerning low-level flights by the communities affected: 11 of these missions had been carried out by aircraft deployed for Operation Deliberate Guard (out of a total of 69 squadron training sorties) despite the fact that the relevant Italian-American agreements did not envisage training flights for the crews of such aircraft. Potentially dangerous situations similar to the one that led to the Cermis cablecar disaster had also occurred previously: one in particular, on 27 July 1987, had caused injuries when an Italian aircraft hit the cables of the Falzarego cableway (on that occasion the gondola, with its passengers, was in the station). On 25 May 1995 an American aircraft hit a cableway at Socchieve (Udine), while on 5 May 1995 an aircraft had cut a high voltage line in the municipality of Vallarsa. The low-level flyover of Cortina d'Ampezzo (on 11 October 1995) by an F16 from the 31st FW stationed at Aviano had an even greater impact than the low-level flight at Torbole by an Italian aircraft (June 1997). Finally, in Val di Fiemme itself numerous low-level flights had taken place, as reported by witnesses. The information provided by the parish priest of Molina dal Fiemme was considered to be particularly significant. He reported that from the rectory, which is set on a hillock at the entry to Val di Fiemme, he had seen aircraft entering the valley from Lago di Stramentizzo at such low altitudes that he was able to look down on them from above: the technical survey ordered by the Public Prosecutor's Office of Trento established that these aircraft, given the height at which the rectory is situated, had been flying at about 30 meters AGL.

The investigators inferred from this that the chain of command was aware of and tended to tolerate habitual breaches of altitude regulations by pilots. This may have been because low-level flights are

sought-after missions, not readily available in view of the cost of each individual flight (pilots try not to miss any opportunity to clock up as many hours as possible of low-level flights), or because in objective terms they were an essential training requirement for pilots, for whom they were undeniably attractive.

Indeed, it was not unusual for crews to film or take photos from the cockpit during flights. The investigators obtained an amateur video of a flight over the Alps by a US aircraft stationed at Aviano The Commander of the unit had unsuccessfully tried to prevent this from being made known and had been subjected to disciplinary measures as a result. Something similar happened with EASY 01, since the evidence found on board the aircraft included a video camera (the tape of which was, however, blank), a 35 mm cine camera and a camera with film containing 31 exposures (some of these photos showed the landscape from an extremely low level, although it is not clear if the pictures were taken before or during flight EASY 01). In the view of the Public Prosecutor, this provided a view into the psychological attitude of the crew during the flight, but the evidence was ignored by the Command Investigation Board, which judged it to be irrelevant.

To sum up, in the Public Prosecutor's opinion these precedents showed how easy it would have been to foresee that the pilots would break the rules and how equally easy it would have been to foresee incidents involving damage to persons or property, with a specific link between the tolerance of low-level flights and such damage.

2.2 The alleged irregularity of flight EASY 01

As noted, the Public Prosecutor's Office of Trento felt that the aircrew had clearly broken the rules concerning flight path, altitude and speed as set by their flight plan. In other words, the flight was conducted in an irregular manner. However, in the opinion of the Public Prosecutor, the flight itself had also been unlawfully authorized (as the Ministry of Justice had immediately been informed):

training flights were not envisaged for aircraft deployed to Aviano for Operation DG. As noted previously, the primary operational purpose of VMAQ-2 was to carry out AOR missions in Bosnia, not to engage in low-level training. It is true that the same report included a reference to the fact that the US Commander of Striking Forces South had in general terms authorized training flights for the Prowlers of VMAQ-2, but only if they did not interfere with the DG missions; at any rate, this authorization could not override other agreements with the Italian authorities;

the ban on low-level flights, unless otherwise envisaged for ad hoc exercises (such as CAT FLAGS), had been expressly set out in SMA-322/00175/G39/SFOR of 21 April 1997, which was issued after meetings between the Italian Air Staff and the commanders of the foreign air forces deployed in Italy for Operation DG. The reason for the ban lay expressly in the need to minimize the social and envi-

ronmental impact of the flights. Indeed, it was accompanied by further restrictions on the times and days on which flights could take place. The content of this message therefore left no room for the suggestion that the DG agreement contained an implicit authorization of training flights in derogation from the regulations in the BOAT Manual;

the Commission appointed by the Command of the 1st Air Region and the statements of the senior Air Force officers had confirmed the ban on low-level training over all Italian territory;

for flights over Trentino-Alto Adige, message FCIF 97-16 of 29 August 1997 had already banned flights under 2000 feet, just as message USAF MCI 11-F-16 had banned flights under 1000 feet AGL in mountainous areas from 1 November to 30 April and whenever snow was present. The US CIB had also confirmed that this instruction was mandatory for US forces; the crew had declared to the CIB that it was not aware of this, but the restrictions were contained in the documents found in the Prowler;

the BOAT manual and Marine Corps Order 3500 – 14F also banned flights below 1000 feet: as a specific safety measure the latter set a minimum altitude of 1000 feet for training flights by aircraft like the EA-6B;

instead of seeking the required operational authorization from the Italian Commander of the 5th ATAF at Vicenza, which could have blocked the mission, the American commanders simply inserted it in the DFS for 3 February 1998 and transmitted it to the COA/COM at Martina Franca. In this way they avoided the check procedure and essentially made the flight appear to be one of the many (authorized) flights of the 31st FW stationed at Aviano, which were subject only to the authorization procedure carried out by the COA/COM at Martina Franca. Flight EASY 01 had been included with route AV047 BD in the 31st FW's DFS while, in the Public Prosecutor's opinion, the procedure for aircraft deployed for Operation DG envisaged authorization by the 5th ATAF of Vicenza. As this was the body which, following the directive of the Italian Air Staff, had issued the ban on low-level flights for these aircraft, it was easy enough to deduce that it would not have authorized EASY 01. The COA/COM at Martina Franca, whose only task is to deconflict flight plans, had been led to consider EASY 01 as a 31st FW flight and had authorized it. For this reason, and the fact that the authorization issued by the COA/COM at Martina Franca was merely technical, the Public Prosecutor noted that the flight could not be considered in any way to have been legitimately authorized. It is clear, therefore, that the line of investigation followed by the Public Prosecutor's Office of Trento was to show that the unlawfulness of EASY 01 of 3 February 1998 had not only involved the US chain of command, at least up to a certain level, but had also contributed to creating a degree of doubt over the applicability of the SOFA (with implications for the question of jurisdiction).

This conclusion was borne out by two facts: first, in turning down the Italian request to waive US jurisdiction, Gen. Clark had himself

asserted that flight EASY 01 was an official mission; and second, the American chain of command's alleged habitual tolerance of breaches of the rules on low-level flights meant that such flights were readily foreseeable, as was the potential damage they could cause.

With regard to the Italian chain of command, the Public Prosecutor noted that there was no evidence that the conduct of the air traffic control center personnel contributed to the Cermis tragedy. From 4 January 1998 the center was the COA/COM of Martina Franca (prior to that date it had been the ROC [Regional Operational Command] at Monte Venda). This conclusion was based on the information provided by numerous Italian Air Force officers and the staff organization schedules of the 3rd ROC at Martina Franca, and on the following considerations: first, the air traffic control center had no authority over the preparation of flight EASY 01; second, if the flight, albeit unlawfully authorized, had taken place in full respect of the planned flight path, altitude and speed, the mishap would not have occurred. The absence of a causal link (which would have brought Article 41 of the Criminal Code into play) therefore ruled out any criminal responsibility in this respect.

This conclusion seems to diverge from the subsequent one, which ascribes a degree of responsibility to the US chain of command in having allowed an unlawful flight to proceed. It also raises the corollary point that the question of whom the instructions in SMA-322/00175/G39/SFOR of 21 April 1997 were addressed to is irrelevant to the question of where criminal responsibility for the incident lies. This is because the unlawful authorization of the flight would not under any circumstances have caused the mishap if the Prowler crew had conducted the flight according to the rules, except for the fact that an incident of this nature could have been foreseen by the American chain of command. The fact remains that the ban on flights below 2000 feet had already been included in a previous message, FCIF 97-16 of 29 August 1997, which was known by or available to US military personnel.

The failure to comply with the instruction in SMA-322/00175/G39/SFOR did not in itself contribute to the incident, because if the flight plan had been followed the tragedy would not have occurred; conversely, not even the strict application of the restrictions set out in the message by the American and/or Italian chain of command would have prevented the tragedy, in view of the negligent conduct of the Prowler aircrew.

2.3 The position of Col. Orfeo Durigon

The Public Prosecutor of Trento ruled that the case against Col. Orfeo Durigon should be dismissed, not only with regard to any responsibility for tolerating frequent and dangerous breaches of the rules, such as the habit of disregarding specific bans by flying at very low level, or for the foreseeable consequences of this conduct in terms of damaging events, but also in view of the different line of investi-

gation regarding his conduct in connection with the 11 low-level flights by aircraft deployed for Operation DG. The Public Prosecutor considered that proceedings involving alleged breaches of the rules by Col. Durigon and/or other Italian officers would have involved an unjustifiable delay in defining the proceedings against the US defendants, for whom the gathering of evidence was by this time judged to be complete.

This brings us to the responsibilities of individuals alleged by the Public Prosecutor's Office of Trento in its request for committal for trial.

2.4 The aircrew's line of defense

The crew members opted to exercise their right to remain silent under questioning. One possible line of defense – in addition to the lack of jurisdiction by the Italian judge – had been aired by another member of the US forces, Capt. Brian Mahoney Thayer, whom the Public Prosecutor's Office of Trento had heard as a « person informed of the facts ». Capt. Mahoney, who had flown with the aircraft in question on the morning of the incident, had declared to the Prosecutor that he had had to turn the altimeter off because it was malfunctioning. This was however disproved by the other American military personnel who testified on this subject and by technical testing. For this reason Capt. Thayer was later invstigated for perjury (offence pursuant to Article 371 *bis* of the Criminal Code; the proceedings were suspended immediately pursuant to paragraph 2 of the same provision).

The crew members behaved differently during the administrative inquiry by the US Command Investigation Board, whose conclusions are contained in the report of 10 March 1998. During this inquiry they agreed to reply to just some of the questions the CIB submitted to them in writing, in advance. In this case too, however, they merely read their respective statements without handing over a copy, and objected to the transcription of their statements being delivered to the Italian examining magistrates.

2.5 The charges brought against individuals

On the basis of its inquiries, the Public Prosecutor of Trento asked for seven members of the US forces to be committed for trial. The pilot, Capt. Richard Ashby, who at the time of the incident was in command of the mission, had flown the plane himself in manifest breach of the ban on low-level training flights. He had also failed to follow the flight path, altitude and speed set out in the flight plan, in contempt of the most elementary rules of caution, diligence and expertise – which are even more binding, since this was a contact flight – and of the operating standards set out in the NATOPS manual. Moreover, he had flown over an inhabited center (Cavalese) at less than

the safety distance of one nautical mile. The responsibility of the other crew members was corroborated by the crew « job descriptions » obtained from the American NATOPS manual.

Capt. Joseph Schweitzer had also contributed to Capt Ashby's negligent conduct. Capt. Schweitzer was on the aircraft as first officer for electronic countermeasures (ECMO1) and as such was responsible for navigation and communications and for assisting the pilot with lookout routing, as the pilot's visibility was severely limited to the right. As part of accepted practice within the VMAQ-2 Squadron he also planned and prepared the route.

A lesser, but still criminally relevant, degree of negligence was attributed to the other two crew members, Captains William L. Raney and Chandler P. Seagraves, ECMO2 and ECMO3 respectively, who were responsible for pre-flight briefing and assisting the pilot during the flight in identifying dangers to navigation. On this occasion such dangers were perfectly clear to all the crew members, in view of the large divergence between the prescribed and actual altitudes and speeds, and the deliberate failure to use the RadAlt, although the instrument was in perfect working order and the NATOPS manual required it to be used during low-level flights.

The final element in the accusations was the point that, again according to the NATOPS manual, « each crew member must approach EA-6B employment with an attitude of sharing responsibility ». Moreover, all the crew members were experienced officers with many flight hours behind them. None of them had psychological or medical conditions that made them unfit to carry out their duties.

The charge against Lt. Col. Richard A. Muegge, Commander of Marine Corps Squadron VMAQ-2, to which the aircraft belonged, consisted of having ordered and arranged for all 11 low-level training flights to go ahead in breach of the bans. These included flight EASY 01, as Lt. Col. Muegge himself expressly admitted. Although this flight should not have taken place, Lt. Col. Muegge unlawfully inserted it in the DFS transmitted to the COA/COM at Martina Franca, whereas he should – if anything – have sent the request to the 5th ATAF.

Nor could ignorance of the rules be considered to excuse such negligence, since a further reason for censure was the fact that it was Lt. Col. Muegge's duty to inform himself and his subordinates of these rules, especially if we consider that his squadron was relatively small and was organized along fairly simple lines. The CIB emphasized that 15 of the 18 crew members of the VMAQ-2 Squadron were not aware of FCIF 97-16 banning flights below 2000 feet, and concluded that there had been supervisory errors within the squadron. And yet a navigation chart indicating the restriction to 2000 feet on route AV047 BD was found in the « Low-Level SOP » binder used by the unit, which means that the Americans had been informed of this limit or at least that the information had been made available to them.

Another American officer, Capt. Ryan, who was heard as a « person informed of the facts », also described inefficient and poorly-used channels of communication between the 31st FW and the squadrons deployed for Operation DG, and difficulties in actually

viewing the information transmitted. Lastly, although there is some doubt that this factor had a true causal effect, Lt. Col. Muegge had not even ensured that the US navigation charts were up-to-date. These did not show the Cermis cableway, although the Italian Aeronautical Cartographic Information Center (CIGA) had sent 8 copies of the Italian charts (which showed both Cavalese and the cableway) to the commanders of the 31st FW (US personnel were under no obligation to use only American charts from the Department of Defense's National Imagery and Mapping Agency (NIMA)).

The Public Prosecutor brought similar accusations against Gen. Timothy Peppe and Col. Marc Rogers, commanders of the 31st FW and the operations group respectively. Not only had they neglected to bring the existence of the more up-to-date Italian charts sent the CIGA to the attention of all their subordinates, but they had also breached the flight safety standards and legislation in force on Italian territory (which they were required to observe) by failing to ensure that all members of the squadrons were informed of the restrictions on low-level flights and preventing flight EASY 01 on route AV047 BD from being included in the DFS of the 31st FW, despite of the provision banning low-level training flights on this route.

The absence of suitable formal procedures to ensure that all the squadrons received this information was censured both by the CIB and by the technical consultants to the Prosecutor's Office, Messrs. Casarosa, Dalle Mese and Scolaris.

On this subject it might be appropriate to include an excerpt from their technical report, considering the important role this played in the Public Prosecutor's conclusions. The technical consultants demonstrated that there appeared to be shortcomings even in individual procedures such as those relating to minimum overflight levels, which were transmitted but not monitored, written and then not distributed to all the interested parties, and so on. It was not sufficient, in the opinion of the consultants, to assign tasks and responsibilities (often in a generic fashion) if these were not followed up by suitable procedures indicating « who does what, how, when and why ». The filters put in place were therefore too « porous » to identify shortcomings.

No evidence emerges to suggest that satisfactory arrangements were established to coordinate the requirements of the country being flown over with those of the guest units, as far as operational restrictions were concerned.

Finally, in view of the fact that statistics show human responsibility in at least 65% of air accidents, the control procedures should have included measures to ensure that flight orders were fully respected.

There appeared to be a sort of tacit indulgence towards crews' failure to respect flight orders in full. Hiding behind the assertion that « on board the responsibility for the flight lies with the pilot in

command » is not sufficient justification for failing to ensure that orders and procedures are followed and to take the appropriate corrective action in cases where the rules are broken.

Although the report by the USAFE technical experts refers to a Quality System, it is not clear whether this was laid down in procedural terms or implemented with the necessary degree of precise severity.

Nor can difficulties arising from the lack of evidence or the large number of flights be accepted as an excuse for ineffective corrective action towards deviations from orders. Strict sample checks are always possible, based on the assumption that clearly defined procedures and means of comparison with the instructions issued must at least exist – in other words, the adoption of a Quality System, which at present leaves a great deal to be desired.

The technical consultants therefore concluded that there were considerable gaps in this sector that needed to be filled, both by the USAFE and by the Italian Air Force. They realize that aircrews need to be trained to carry out missions in an « aggressive » fashion because in combat this is a necessary condition for the success of the mission and the very survival of the crews. However, they considered the military authorities to have a clear duty to guarantee that in peacetime and during training missions this « aggressiveness » be expressed with due regard for the safety of the countries over whose territory the flights take place, by drawing up suitable routes and regulations and ensuring that these arrangements are respected in full.

Another factor which the Public Prosecutor of Trento felt contributed to the American chain of command's responsibility for the mishap was the fact that the failure to observe the ban on low-level flights had not been an occasional occurrence, but one which had all too many precedents. Although these had all been duly reported, the senior officers had failed to take any steps to prevent such breaches recurring.

2.6 The offenses for which committal for trial was requested

The negligent conduct described above was considered by the Public Prosecutor of Trento to consist of two offences: *cooperazione in omicidio colposo plurimo* (contribution to multiple negligent homicide) (Article 113 and Article 589, paragraphs 1 and 3, of the Criminal Code), entered as charge A), and *cooperazione in attentato colposo alla sicurezza dei trasporti seguito da disastro* (contribution to endangering public transportation resulting in disaster) (Article 432, paragraphs 1 and 3, and Article 449 of the Criminal Code), entered as charge B). The Prosecutor considered the crimes to be formally concurrent pursuant to Article 81, paragraph 1, of the Criminal Code, and committed through a single action. The reason for this decision was the diverse nature of the offences being judged, since the two crimes

were independent and involved separate legal subjects (human life in the one case, public safety in the other). (4)

By charging the aircrew with both the above offences – charge A) and charge B) – under formal concurrence, the Public Prosecutor's Office of Trento therefore ruled out the existence of apparent concurrence of laws regulated by Article 15 of the Criminal Code. (5)

This brief introduction serves to illustrate a significant point in the request for committal for trial. Although it appears in the request that this point was dealt with at the outset in view of its potentially overriding nature, it actually comes after the description of the investigations and their outcome. The reason for this is to shed more light on the logic followed by the Public Prosecutor of Trento in relation to the thorny question of jurisdiction, which is difficult to understand without a full knowledge of the course of events and their penal consequences. Once the Public Prosecutor had concluded that the charges against the American military personnel involved two distinct crimes and that one of these – *cooperazione in attentato colposo alla sicurezza dei trasporti seguito da disastro* – did not exist under US law, he reached the conclusion that at least with regard to this last offence a situation of sole jurisdiction by the receiving State (Italy) existed, rather than concurrent jurisdiction of the sending State (the United States) pursuant to paragraph 1(b) and paragraph 2 (b) of Article VII of the SOFA of 1951. He therefore drew up a separate, subordinate request.

2.7 The issue of jurisdiction and the questions of constitutional legitimacy

In derogation from Article 6 of the Criminal Code, which subjects anyone, including non-Italian citizens, committing crimes on Italian territory to Italian jurisdiction, Article VII of the SOFA, ratified by Law

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(4) One purely incidental point is that another separate formal concurrence of crimes was already implicit in charge A) only, on the basis of the ample body of rulings by the Court of Cassation - see, for example, Cass. 9.6.92, no. 5761 (hearing 15.2.82); Cass. 21.2.83, no. 1541 (hearing 18.10.82); Cass. 30.9.82, no. 8404 (hearing 11.5.82); Cass. 24.6.82, no. 6247 (hearing 18.3.82) - according to which the crime pursuant to Article 589 sections 1 and 3 of the Criminal Code gives rise not to a single aggravated crime (which would therefore exclude any ruling to appear pursuant to article 69 of the Criminal Code), but to as many charges of omicidio colposo as there are victims, since the crimes are only unified quoad poenam through aggregation.

(5) It is worth recalling that the two cases in question - the one punishing omicidio colposo and the one referring to attentato colposo alla sicurezza dei trasporti seguito da disastro - are in a relationship of reciprocal specialty, each with its own distinguishing elements (which rules out the situation where one is a mere species or sub-species of the other, as happens in the case of mere specialty) and that they intersect in relation to a common criminal event that would be considered a crime under both. Nor should the relationship of reciprocal specialty be confused with one of interference, which arises when only some of the incriminatory elements (such as conduct or act) coincide, without any one act being considered a crime under both provisions. In order to distinguish apparent concurrence of laws from formal concurrence of crimes (or genuine concurrence of laws) current legal thinking prefers to avoid the criterion of juridical objectivity, at least from Cassation ruling 28.11.91 onwards.

1335/1955, (6) establishes a series of criteria for assigning jurisdiction over crimes with which foreign citizens present on the territory of an allied country to carry out duties connected with the military alliance are charged.

The cases envisaged by the SOFA are the following:

exclusive jurisdiction by one of the two states – receiving or sending – for offences punishable as crimes under only one of the two legal systems (Article VII, paragraph 2), with particular reference to those endangering the security of the receiving State but not punishable under the law of the sending State;

concurrent jurisdiction for offences punishable as crimes by both legal systems.

In this case primary jurisdiction is assigned:

to the sending State in the case of offences solely against the interests of that State (Article VII, paragraph 3(a.i)) or for offences arising out of any act or omission done in the performance of official duty;

to the receiving State for all other offences (paragraph 3. b).

However, in cases of concurrent jurisdiction the State accorded priority may decide at the request of the other State, to which it will give sympathetic consideration, to waive jurisdiction in cases where the other State considers such a waiver to be of particular importance (paragraph 3(c)). The exercise of the waiver option is regulated in Italy by Presidential Decree 1666/1956 (which implements the SOFA in the Italian legal system).

In the case in question the Military Prosecutor of Aviano, Anthony P. Dattilo, had claimed primary US jurisdiction and in a note dated 13 March 1998 Gen. Wesley K. Clark turned down the Italian request, which had been submitted in good time, for the United States to waive this right, reiterating that flight EASY 01 had taken place in the performance of an official duty.

In the absence of a waiver of primary jurisdiction by the United States, which would have overridden all other considerations, the Public Prosecutor of Trento turned to the question of whether EASY 01 could really be classed as a mission in the performance of an official duty, in which case the SOFA and/or other international agreements referred to therein would apply, and if a correct reading of Article VII of the Agreement left any scope for Italian jurisdiction, not least in relation to the offence entered under charge B), i.e. *cooperazione in attentato colposo alla sicurezza dei trasporti seguito da disastro*.

The Public Prosecutor observed that the SOFA – and with it the possibility of derogating from Italian jurisdiction – should not have been applicable because the necessary condition of the performance of duties connected with the military alliance was lacking, since flight

(6) For more on the international legal context, see Part V, sections 1 and 2, below.

EASY 01 was a US rather than NATO flight, and therefore fell outside the scope of the Agreement. Moreover, only the deployment of EA-6B Marine Corps aircraft, not training missions, had been authorized for Operation DG: these missions had therefore been carried out in breach not only of Italian sovereignty, but also of the technical agreements between Italy and the United States – in other words, outside the duties connected with the military alliance.

For various reasons, the Public Prosecutor ruled out the possibility that a loose interpretation of the agreements, or reasoning by analogy, might suggest that the training mission had by its very nature been a preliminary step to the deployment of the aircraft for Operation DG, since this interpretation was technically not admissible (see Article 14 of the preliminary provisions to the Civil Code) as it diverged from the general rules of Article 6 of the Criminal Code, the North Atlantic Treaty of 1949 and the SOFA of 1951. Several further considerations are required at this point.

First, as stated by Col. Zanovello, in February 1998 the need for low-level flights over Bosnian territory had ceased and flights below 5000 feet had been banned, mainly to lessen the impact of the foreign military presence on the population of that territory; if low-level flights could not take place over Bosnia, there was no reason for the Prowlers deployed in Italy to carry out practice missions for operations that they could not perform there.

In the second place, the ITAIRSTAFF – NATO/JOINT GUARD technical agreement of 17 March 1997, followed by message SMA-322/00175/G39/SFOR of 21 April 1997, had banned low-level training missions unless instructions to the contrary were issued for ad hoc exercises, the aim again being to lessen the social and environmental impact of the flights involved in Operation DG.

Finally, the Public Prosecutor considered that since the EA-6B aircraft were not part of the contingent permanently stationed at Aviano – the F16s of the 31st FW – on the basis of the BIA and subsequent technical agreements, there could be no suggestion that this flight was permitted in the light of the right granted to the United States by the BIA itself (the judicial authorities of Trento asked the 1st Air Region for a copy of this agreement, but this was not forthcoming). In other words, it could and did indeed happen that the F16s took part in the missions in Bosnia (as reported by Col. Zanovello and Gen. Vannucchi). However, the opposite scenario, that the Prowlers could be relieved of their duties to perform those of the 31st FW, was not possible. It was no coincidence that the request for authorization for the EASY 01 mission had not been submitted to the CAOC of the 5th ATAF.

The Public Prosecutor also underscored the fact that the flight, having been unlawful, extraneous to duties connected with the military alliance and carried out with grossly negligent conduct by the crew, had broken the link with the performance of a duty, and that the necessary condition for primary jurisdiction did not as a result exist.

As a subordinate point, if the flight had been considered legitimate and its duties as being connected with the military alliance, concurrent

jurisdiction by Italy and the United States under the terms of the SOFA would not in any case have applied, because in accordance with the rules set out in paragraph 3(a.ii) of Article VII primary jurisdiction could be accorded to the sending State only for offences that did not primarily involve the interests of the receiving State. This interpretation is suggested by the interpretative principle *in dubio mitius*, according to which – in cases of doubt -international law should be applied in the least onerous way for the party assuming the obligation (that is, Italy, the receiving State being denied jurisdiction).

In the Public Prosecutor's opinion the SOFA contained an implicit and inderogable condition that the events taking place in the performance of duties connected with the military alliance should not cause serious disturbances in the receiving State and seriously damage its interests: otherwise, a different measure of judgment would have been applied with respect to that in Article VII section 3(a.i) in favor of the sending State, according primary jurisdiction to the sending State for offences solely against the person or property of another member of the force or civilian component of that State or of a dependent.

In the case under consideration the interests damaged were exclusively Italian, while no American citizens had lost their lives or suffered any form of damage against their property or person.

Nor could any objection be raised by effect of the implicit recognition of the primary jurisdiction of the sending State in the request to waive the exercise of jurisdiction submitted by the Italian Government, as Presidential Decree 1666/1956 only envisages a formalized waiver but does not recognize the jurisdiction of the sending State as having a binding effect on Italian judicial authorities.

Having set aside the question of whether recognition of jurisdiction through the SOFA was feasible, the Public Prosecutor ruled out the possibility that the primary jurisdiction of the United States might be decided by the customary principle of the « law of the flag », according to which military forces on foreign territory remain subject to the jurisdiction of the sending State.

Article 10, Section 1 of the Constitution transposes into Italian legislation the customary provisions and principles of international law (see on this subject Constitutional Court ruling no. 188/1980) but, as the Public Prosecutor noted, the customary law of the flag had not been applied for at least 50 years because it had been overtaken by a proliferation of international agreements that took the interests and position of the receiving State into account.

On 30 April 1998 the Minister of Justice, replying to a parliamentary question in the Chamber of Deputies, had recognized the effect – in today's international community – of the principles of universality and territoriality of criminal law.

The law of the flag in turn clashed with another principle, that of the ban on entering the territory, waters or airspace of another State unless under specific agreements, with the exception of non-offensive transit of warships but not of aircraft. Indeed, Article 3 (e) of the International Civil Aviation Agreement of 7 December 1944 did not

extend this right of transit to aircraft, which means that no aircraft of a contracting State can overfly the territory of another without authorization « by special agreement or otherwise ».

A further subordinate point is that concurrent jurisdiction would have been denied, leaving exclusive Italian jurisdiction, at least for charge B), the offence of *cooperazione in attentato colposo alla sicurezza dei trasporti seguito da disastro*. Bearing in mind that a pre-condition for concurrent jurisdiction is that the offence should be punishable under both legal systems, the Public Prosecutor of Trento emphasized that the offence envisaged by Article 432, paragraphs 1 and 3, and Article 449 of the Criminal Code do not exist under US legislation. This was confirmed by the specialist advice provided by Prof. Maria Valeria Del Tufo and indirectly demonstrated by the lack of a response from the various American authorities to which the Public Prosecutor had, in vain, posed the question, and by a *pro veritate* opinion delivered by the attorney for the aggrieved party Marino Costa.

Finally, the Public Prosecutor pointed out that it would be fundamentally inconsistent to hold a trial in the United States on the basis of evidence obtained from the Italian authorities by means of international rogatory letters, through activities carried out entirely in Italy and evidence gathered there (as indeed happened in the event).

This said, while the examining magistrate had considered primary jurisdiction to lie with the United States, the arguments advanced by the Public Prosecutor of Trento followed the opposite path, that of the constitutional illegitimacy of the legislative framework which precluded the exercise of Italian jurisdiction.

The preamble to the SOFA establishes that the decision to send forces and the conditions under which they will be sent will continue to be the subject of separate arrangements such as the BIA between Italy and the US, the MOU of 1993 on the use of the Aviano air base and the agreement on Operation DG.

Under Government « doctrine », all agreements implementing the North Atlantic Treaty, however stipulated, are referable to and are the sole responsibility of the executive, so that once the original pact was ratified with an ordinary law, subsequent specifications would not need a separate ratifying law pursuant to Articles 80 and 87 of the Constitution. Although these were Government initiatives discussed in Parliament and accompanied by motions and recommendations, the Public Prosecutor noted that the practice of not following the procedures envisaged by Articles 80 and 87 of the Constitution meant that, at source, the preamble of the SOFA opened the way to any « judicial regulation » (as Article 80 of the Constitution expresses it) not authorized by Parliament. The effect of this would be that by ratifying the SOFA through ordinary law 1335/1955 Parliament would have granted to the Government, in a preventive, abstract and indeterminate fashion, the faculty of changing the *de facto* and *de jure* conditions for the exercise of jurisdiction.

As a result, there were serious questions about the constitutionality of Article VII, paragraph 3(a.ii) of the SOFA, introduced in Italian law with Law 1335/1955, as well as an erroneous interpretation of Article

11 of the North Atlantic Treaty, referred to in the SOFA, which established that its provisions would be carried out in accordance the respective constitutional processes of the Parties, which was in turn in conformity with Article 43 of the United Nations Charter.

The Public Prosecutor went on to state that the constitutional laws would have been even more seriously violated because they would have been infringed not by political actions, but by simple acts by the senior administration. One such example was the MOU on the use of the Aviano base, which was signed for Italy by the Deputy Chief of the Defense Staff.

The Public Prosecutor therefore urged the examining magistrate either not to apply the SOFA, or to interpret it in a manner that was compatible with the Constitution, i.e. not to consider it binding in situations made possible by agreements that had not been ratified following the procedure laid down by Articles 80 and 87 of the Constitution. Alternatively – and preferably – the examining magistrate was asked to raise the question of constitutionality, the aim evidently being to encourage an additional pronouncement by the Constitutional Court affirming the constitutional illegitimacy of the part of Law 1335/1955 that permitted the Government to stipulate technical agreements without following the standard ratification procedure. In the opinion of the Public Prosecutor the objection on grounds of constitutionality would have been preferable because in a delicate subject such as international law involving State responsibility, it would have struck a correct balance between judicial activism and judicial restraint.

The principles violated went beyond those in Articles 80 and 87 of the Constitution to include – with specific reference to the implications for jurisdiction – Articles 24, 25, 101, 102, 104 and 112.

With regard to Article 25, paragraph 1, the Public Prosecutor pointed out that if they had been tried in the United States the airmen would not have had the benefit of a natural judge as ascertained by law, but would have been subjected to a court martial set up *ad hoc, post factum*, in contrast with Article 6 of the European Convention on Human Rights and Article 14, point 1 of the International Covenant on Civil and Political Rights, ratified and implemented both by Italy and the United States. The aggrieved parties would also have been denied the benefit of a natural judge ascertained by law. A further consideration was the impossibility of the aggrieved party bringing an action before a court martial.

A favorable line of interpretation was to be found, again in the opinion of the Public Prosecutor, in Constitutional Court ruling n° 96/1973. Although rejecting the question of constitutional legitimacy, raised, however, with regard to Article VII, paragraph 3(c) of the SOFA concerning the mechanisms for the waiver of primary jurisdiction, this decision recognized that « the legislative notion of natural judge does not take the form of the legislative determination of a general competence, but is also formed by those provisions which derogate from this competence on the basis of criteria that rationally evaluate the disparate interests brought into play by the process ».

In other words the Court, reconciling – in the sources of international law – the principle of legality with that of appropriateness, still postulated a reasonable and balanced evaluation of the interests in play, while the recognition of the primary jurisdiction of the sending State based solely on the fact that the act was carried out in the performance of an official duty essentially disregarded this balance. And yet acts carried out in the performance of an official duty might have been far less likely to damage the primary interest of the sending State and matched more closely those situations which, again according to the SOFA, determine the primary jurisdiction of the receiving State.

The Public Prosecutor noted that the paradox could even reach the point of denying the jurisdiction of the receiving State in all cases, for the simple reason that foreign military personnel are always sent abroad for reasons of service. Indeed, this is the interpretation constantly put forward by the United States, in this and other cases, including that of Capt Brian Mahoney Thayer, who was investigated for making false statements to the Public Prosecutor. The assertion that Capt. Thayer was performing a carrying out an official duty when he made statements considered to be false is nothing less than a fallacy of circular argument. Briefly, the sending State would have had the utmost, unfettered discretion in classifying the offence as having been committed in the performance of duty, which is the polar opposite of the rule of objective pre-ordination envisaged by the first paragraph of Article 25 of the Constitution.

This discretion of the sending State in identifying the cases to which its primary jurisdiction applies is not tempered even by Presidential Decree 1666/1956, which merely regulates the (different) case of the exercise of the right of waiver by the Italian authorities.

Nor would it have served any useful purpose to object that the legal system of the sending State could also, on its own account, put in place suitable guarantees of the acertainment of the natural judge because – as the Constitutional Court had already stated in ruling no. 223/1996 – what counts is not the nature and quality of the remedies contained in the foreign legal system but the inadequacy of a mechanism which, case by case, refers judgment on the degree of reliability and effectiveness of the guarantees provided to discretionary evaluations.

In turn, the absence of any legislative classification of which acts can be considered to have been carried out in the performance of a duty, and of any ways of verifying this, would, by preventing the judge from evaluating the linkage between criminally material conduct and jurisdiction, have undermined not only Article 25, paragraph 1 of the Constitution but also other Constitutional provisions. These include Article 24 (paragraph 1) on the individual's right to protect his or her rights in court, since this would be rendered meaningless if both the accused and the aggrieved party were denied the chance to be heard at a crucial point such as the decision on jurisdiction; Article 102 (paragraph 1) which reserves « for ordinary magistrates empowered and regulated according to the provisions laid down in the laws on the organization of the judiciary » the role of carrying out jurisdictional

functions; Articles 101 (paragraph 2) and 104 (paragraph 1), which ensure the independence of the judiciary from any other power of the State; and Article 112, which sanctions the duty to initiate criminal proceedings.

2.8 The concluding requests of the Public Prosecutor to the examining magistrate of the Trento Court

The Public Prosecutor then formulated the following concluding requests before the examining magistrate:

first in order of importance, considering the non-applicability of the SOFA and/or Italy's exclusive jurisdiction and/or, in the case of concurrent jurisdiction, the primary jurisdiction of Italy, to commit Capt. Richard Ashby, Capt. Joseph Schweitzer, Capt. William Raney, Capt. Chandler Seagraves, Lt. Col. Richard A. Muegge, Col. Marc Rogers and Gen. Timothy Peppe for trial for the crimes ascribed to them under charges A) and B);

second, to consider as material and not manifestly groundless the questions of constitutionality set out above, with the consequent suspension of the proceeding and transmission of the records to the Constitutional Court;

and third, to consider the exclusive jurisdiction of Italy for the offence at charge B) for all the accused and therefore have them committed for trial.

Finally, the Public Prosecutor noted the cancellation of the proceedings with regard to any responsibilities of the Italian chain of command, the cancellation of the proceedings relating to the absence of markings on the cable way, and the suspension of proceedings against Brian Mahoney Thayer.

2.9 The examining magistrate's decision

At the end of the preliminary hearing on 13 July 1998 the examining magistrate with the Court of Trento, Carlo Ancona, declared that the Italian judge did not have jurisdiction.

The reasoning followed by the examining magistrate in rejecting the motion of the Public Prosecutor – and of the aggrieved parties' attorneys (see defense of the aggrieved parties Costa and Vanzo) – and allowing the attorneys for the defendants' plea to the lack of jurisdiction by the Italian judge is as follows.

The examining magistrate initially took the opposite line to the Court of Cassation, according to which the Italian judge has no other choice under the terms of the SOFA but to take note of the lack of jurisdiction when the sending State intends to exercise primary jurisdiction with the sympathetic consideration of the receiving State, and objected that – in such a case – the only norm that excluded the

jurisdictional control of the Italian courts is Article 1 of Presidential Decree 1666/1956. This refers, however, only to cases where it is the Italian Government that waives priority, the reason being that the waiver of primary jurisdiction is an eminently discretionary and political action (which does not fall within the remit of the senior administration), and by its nature does not fall within the courts' powers of deciding jurisdiction.

In this case, however, as the issue at question was not one of respecting political acts by the Government, the examining magistrate took the view that the question was merely one of verifying that the SOFA, which had been ratified into national law, was being applied correctly. There was no question of the judge's being constrained- contrary to the arguments put forward by Muegge's defense – even by the Ministry of Justice Circular of 25 March 1957 where it attributed responsibility for stating whether an act was done in the performance of a duty to the accused's military command, as circulars are not sources of law.

Therefore, since the judge had asserted his authority to decide on the question of jurisdiction, the possibility of a conflict of powers with the Government, which the defense for the aggrieved party Vanzo (for the death of Marcello Vanzo) had suggested should be raised pursuant to Article 134 of the Constitution if the examining magistrate considered himself to be bound by the sending State's intention to exercise primary jurisdiction, did not exist.

The examining magistrate then acknowledged that the SOFA was applicable regardless of the characteristics of flight EASY 01, which the Public Prosecutor had considered to be an unauthorizable training flight that lay outside the scope of NATO operations. The judge objected that the literal spirit of the preamble and Article VII of the Agreement did not distinguish between NATO activity and training activities for other purposes, the proof of this being the fact that the Agreement did not concern only NATO activities but also the conduct of civilians. Indeed Article VII, paragraph 3(b) also subjected conduct other than the performance of official duties to the primary jurisdiction of the receiving State, albeit with the possibility for this State to waive its jurisdiction in favor of the sending State.

This point allowed the examining magistrate to address and refute the prosecution's argument that the unlawful nature of the flight and its conduct by the crew – seriously reprehensible and in contempt of orders – had broken the connection between the flight itself and its service objectives. Once the connection with the performance of a duty had been broken, this brought the incident within the scope of Article VII, paragraph 3(b), and therefore under the primary jurisdiction of the receiving State.

In the judge's opinion the break in the link was to be ruled out-- not because of the declaration by the American command that a link existed with the performance of official duties (a declaration that was non-binding for the Italian courts, both in itself and by virtue of the Ministry of Justice circular of 25 March 1957), but in view of the undeniable immanence of the performance of duty, which had been implicitly

recognized by the Public Prosecutor's Office itself since it had stated that the chain of command had not been broken In other words, if the Public Prosecutor maintained that the responsibility for the flight and the way it was carried out could still be attributed, at least up to a given level of command, to the crew's American superiors, this meant that the flight itself had been carried out in the performance of official duties.

Besides, except for cases where a member of the forces obeys a criminal order or exploits the performance of his/her duty for the sole purpose of committing a crime, if a member of the forces behaves in a criminal fashion in the performance of an official duty this means that he has performed it badly and/or has disobeyed orders. To consider, however, that this alone constitutes a break in the connection with the performance of a duty would make it in practice impossible to apply the primary jurisdiction of the sending State. At the same time, however, this point underlines a certain intrinsic weakness in the criterion of the allocation of jurisdiction on the basis of the occasion or performance of duty, in that a liberal interpretation lends itself too easily to creating a more or less all-encompassing area of jurisdiction of the sending State, while a restrictive interpretation could end up by favoring the almost exclusive jurisdiction of the receiving State.

Returning the examining magistrate's reasoning, the request to raise the question of the constitutional legitimacy of the preamble and Article VII of the SOFA because they had been implemented by technical agreements stipulated without following the ratification procedures pursuant to Articles 80 and 87 of the Constitution was rejected as not materially relevant to the case. Indeed, the examining magistrate noted that since the subject of these technical agreements was not the limits to jurisdiction set out in the Agreement (which remained unchanged) but the mere reaffirmation of a military alliance, the existence and constitutional correctness of the agreements did not affect the indisputable historic fact of a military presence on foreign territory; nor did they modify the terms of application of the Agreement. In other words, the specific title (technical agreement or political agreement) applied to the presence in Italy of the forces of NATO states did not affect the applicability of the SOFA to them. Therefore even if – hypothetically speaking – the Constitutional Court, called upon to consider the question, had censured the so-called Government « doctrine », this would not have altered the terms of the alternative jurisdiction in the case in question.

Turning to the Public Prosecutor's argument regarding the implicit condition underlying the priority right of the sending State in cases of concurrent jurisdiction, which is that the events had not caused a major disturbance in the receiving State or that they did not involve offences solely against its interests, a condition that emerges from a comparison between points i) and ii) of paragraph 3(a) – one attributing priority on the basis of the criterion of offences solely against the interests of the sending State, the other referring to performance of official duty – the examining magistrate observed that there were no grounds for postulating that the two provisions under question were inspired by the same reasoning, as the prosecution had claimed. There

were, rather, two different lines of reasoning: in the first case there was a real lack relevance to the receiving State of offences solely against the interests of the sending State, while in the second the agreement merely transposed a noted and long-standing customary tenet of international law according to which « *la loi suit le drapeau* », or « *ubi signa est iurisdictio* ».

Nor could the comparison – raised in the application for committal for trial – with other countries such as the Netherlands and Germany have any bearing. These countries had renegotiated the issue of jurisdiction as they had not claimed primary jurisdiction in cases where the SOFA would have assigned jurisdiction to the sending State. Rather, they had waived in advance the primary jurisdiction of the receiving State, with the exception of crimes that the government authorities considered to be particularly serious (in the case of the Netherlands) or for certain specific serious crimes (in the case of Germany).

The examining magistrate naturally agreed with the Public Prosecutor on the objective difficulty of holding a trial in the US on the basis of investigations conducted entirely in Italy, but added that only a trial before an American court martial could achieve effective results in enforcing the sentences of those found guilty.

Again on the question of constitutional legitimacy raised by the Public Prosecutor for the alleged violation of Article 25 of the Constitution arising from the absence in the law ratifying the Agreement of any certain criteria for denying the jurisdiction of the sending State in the case of offences against the sole interests of the receiving State, the examining magistrate noted that the question was manifestly inadmissible because its aim was to promote an additional judgment by the Constitutional Court. This type of judgment was not admissible in criminal matters if the result would mean unfavorable treatment of the accused. The unfavorable consequences in this case would have been that the accused – all Americans – would have been required to face a trial under an unfamiliar procedure, in a place far from their own country and with judges who were not issuing a judgment in their name also (but, clearly, in the name of the Italian people).

The judge observed that a further reason for inadmissibility was that any sentence of constitutional illegitimacy would have unilaterally amended an international agreement, a subject which fell to the sole discretion of the legislator and was therefore beyond the remit of the Constitutional Court.

This was a preliminary and overriding reason (along with further reasoning added later by the examining magistrate) to reject any other questions of constitutional legitimacy regarding the other provisions that the request for committal for trial cited as having been violated.

The judge therefore deemed that the question of concurrent jurisdiction should be decided in favor of the priority jurisdiction of the sending State. The possibility of exercising exclusive Italian jurisdiction remained, by effect of the formally concurrent double charge brought by the Public Prosecutor's Office of Trento, at least with regard to the crime of *cooperazione in attentato colposo alla sicurezza dei trasporti seguito da disastro*, or contribution to endangering public

transport resulting in disaster, a crime not envisaged under American criminal law (unlike *omicidio colposo*, or negligent homicide, which could be prosecuted under both legal systems). On this subject the Public Prosecutor stated that if proceedings had not been initiated in Italy for this offence, a primary interest of the Italian State, that of public safety, in this case the safeguarding of the safety of transportation (which is the legal interest protected by Article 432 of the Criminal Code), would have remained without protection, thus undermining the principle of the duty to initiate criminal proceedings.

The crux of the issue lay in the interpretation of the concept, contained in Article VII, paragraph 2 of the SOFA, of an offence punishable by law under just one of the two legal systems, to be understood as a mere historic event (regardless of the number of criminal provisions that may have been violated by the one sole act) or as a crime in the technical sense. It is clear that if the first of these two alternatives was accepted the double charge would not have altered the attribution of jurisdiction to the sending State since, as the Cermis tragedy was caused by just one occasion of negligent conduct, the question of exclusive jurisdiction would not have arisen; if, on the other hand, the line taken by the Public Prosecutor had been accepted, without prejudice to the primary jurisdiction of the United States for the charge of *cooperazione in omidicio colposo plurimo*, Italy would still have had exclusive jurisdiction for the crime of *cooperazione in attentato colposo alla sicurezza dei trasporti seguito da disastro*.

The question had also been raised in response to a parliamentary question, although it was stressed that the issue clearly was one for the judicial authorities to resolve.

The examining magistrate then digressed briefly on the system of dual prosecution in the US system – according to which the same historic fact can be prosecuted both as a federal crime and as a state crime – to state that this feature could not be utilized in this case, not least because one of the necessary conditions – dual citizenship and sovereignty over the same territory (which is the case with federal states) – did not exist in Italy. Moreover, in the case in question the linkage between the two legal systems had been created solely by a military assistance treaty, which had no implications for citizenship and sovereignty.

In actual fact it is utterly out of the question even to consider applying dual prosecution, in view of the considerable difference between this concept and the formal concurrence of crimes recognized by Italian legislation. While the first is eminently procedural, being indissolubly related not only to dual sovereignty over the same territory but also to the discretion of the prosecution and gives rise to an improper system for attacking judgement that is weighted in the prosecution's favor (a point that was also noted in the examining magistrate's decision), the second concerns a substantive aspect of criminal law, being underpinned in the legal system by the duty to initiate criminal proceedings and is designed to guarantee that the accused, in the case of conviction for all the crimes with which he or

she is charged, receives more favorable treatment through the application not of material aggregation of sentences but of legal aggregation pursuant to Article 81 of the Criminal Code.

The deciding factor in the rejection of the request for committal for trial, at least with regard to charge B), lies in the second argument considered by the examining magistrate of Trento, who implicitly considered the formally concurrent double charge brought by the Public Prosecutor's Office to be correct and ruled out the hypothesis of apparent concurrence.

The judge expressly followed the traditional interpretation of the Agreement, which grants concurrent rather than exclusive jurisdiction each time a single fact, taken in its overall historic dimension and not as a violation of a given law, is criminally punishable under both legal systems, regardless of which legal interests are taken into consideration and taking into account the fact that the SOFA was conceived not by experts in criminal law but by politicians and military personnel (as can be read in the memo attached by Muegge's defense counsel).

In the case in question it was clear that the legal interest of life was protected under both criminal legislations (American and Italian), while the definition of the crime of *attentato colposo alla sicurezza dei trasporti* pursuant to Articles 432 and 449 of the Criminal Code is merely a prior and advanced form of protection of the same interest, that is, the safety of persons, since it belonged to the category of crimes creating a danger.

Moreover, an interpretation of the agreement based on formal arguments and the requirements of the Italian legal system alone would not have complied with the interpretative principles, also contained in international law, of good faith and the irrelevance of mental reservation. For this reason the question of the alleged undermining of the principle of the duty to initiate criminal proceedings pursuant to Article 112 of the Constitution was not even posed, owing to the lack of the necessary prerequisite, i.e. the jurisdiction of the Italian judge.

Having ruled out the question of constitutional legitimacy raised by the attorney of aggrieved party Costa with regard to an alleged violation of Article 3 of the Constitution by the rule in the SOFA, which derogated from Article 6 of the Criminal Code, which was also unsustainable by virtue of the fact that in the United States the criminal trial of the American military personnel was pending at the time when the examining magistrate issued his decision (only for the four crew members: the trial in the United States is covered more fully in another chapter of this report), the judge also rejected a further line of argument by the aggrieved party's attorney. The latter argued that the procedure envisaged by US legislation in this trial, regulated by a system for choosing the judge that did not guarantee independence, violated the accused parties' human rights, a violation to which the Italian judge would have contributed by accepting American jurisdiction. For this purpose reference was made to Constitutional Court ruling no. 223/1996 on the subject of extradition from Italy to the United States. However, the examining magistrate noted that, unlike the situation in cases of passive extradition given as an example, in the

case in question the decision by the Italian judge would not in any way have influenced the trial in the United States (the legitimacy of which was also recognized by the accused parties) since the American judge certainly did not need a pronouncement by the Italian courts to assert their jurisdiction.

In his decision the examining magistrate therefore declared that in view of the lack of jurisdiction of the Italian criminal court judge there were no grounds to proceed against the accused for the crimes ascribed to them, and ordered that the seized items, including the aircraft at Aviano, be returned to those entitled to them.

The Public Prosecutor did not appeal against the examining magistrate's decision, a fact which also emerged in the Committee's hearing of the Public Prosecutor with the Court of Trento, Granero, and so the ruling became irrevocable.

3. THE MILITARY INQUIRY IN PADUA

3.1 The investigation by the military prosecutor and the request for charges to be dismissed

The Military Prosecutor's Office in Padua conducted an inquiry to ascertain whether the military personnel under its jurisdiction could be charged with any crime. Its territorial jurisdiction arose from the fact that the Aviano base, from which the aircraft that severed the Cermis cableways had taken off, falls within the jurisdiction of the Military Court of Padua.

The aim of the investigation was first and foremost to ascertain whether the ground staff at the base had failed to notify the air traffic control center of the Prowler's low-level flight. This line of investigation proved from the outset to be fruitless, since the mountainous terrain in the area means that radar controls can only be carried out using AWACS planes, and only when these are in an optimal position.

Starting from the indisputable fact that the Prowler had flown very low, below 2000 feet, in territory where this type of training flight was forbidden even to NATO aircraft, the Military Prosecutor then ascertained that the mission had been conducted in clear breach of the flight plan. This had been drawn up by the American command at Aviano and authorized by the ROC at Martina Franca in Puglia, where it arrived via the Italian command at Aviano.

The clear possibility of a military crime by the Commander of the Aviano base, Col. Orfeo Durigon, in the shape of two forms of negligence, therefore emerged.

The first, for failing to set up a system that would keep the Italian command of the base constantly informed of the activity of the US aircraft stationed at Aviano, in order to carry out preliminary checks and controls on planned activity.

The second, for failing to ensure, in compliance with the instructions issued by the Italian Air Staff in its message of 21 April 1997,

that low-level flights did not take place. These instructions were reiterated the following August, with reference only to the Alpine area.

In the meantime, following the decision of 13 July 1998 by the examining magistrate of the Court of Trento, which had declared its lack of jurisdiction over the crew (composed of Marines) and other American military personnel charged with *cooperazione in omidicio colposo plurimo* and *cooperazione in attentato colposo alla sicurezza dei trasporti seguito da disastro*, the Public Prosecutor's Office of Trento also opened an investigation into Col. Durigon. The judicial authorities in Trento deemed that his conduct had not been a cause of the incident, regardless of how it was classified, and sent the documentation to the Military Prosecutor's Office in Padua. This office had jurisdiction only with regard to the one military offence that could be brought against Col. Durigon: failure to perform an assigned responsibility *(omessa esecuzione di un incarico*), an offence under Article 117 c.pm.p.

It emerged from the Padua investigation that before 1997 numerous low-level flights had taken place, especially in the central-eastern Alps. In many cases these had caused noise pollution and aroused alarm and concern among the local population, and in some cases had also caused material damage, including to specific objects (the Cavalese cable car). This had led the Autonomous Province of Trento to adopt Provincial Law 5/1996 (« Regulations for the protection of the environment in relation to the operation of aircraft »). All of these episodes were well known to the Air Staff, from which the Public Prosecutor's Office of Padua obtained the information, and prompted it to issue the message of 21 April 1997 to the effect that no low-level flights were permitted except for training purposes connected with the operations in Bosnia. In spite of this the low-level flights continued, including flights by aircraft stationed at Aviano.

It was therefore legitimate to wonder why the Italian Commander of Aviano had not prevented these missions from taking place, including the mission that had led to the Cermis disaster.

Col. Durigon claimed that the Italian Commander of the base had exclusively formal control over flight schedules, which he transmitted to the operational control center. He was not in fact allowed to assess these schedules or flight altitudes. Such powers of control, according to Durigon, had been delegated to the ROC at Martina Franca since January 1998, as can be deduced from Article 9 of the Memorandum of Agreement.

On the basis of the Italy-US agreement of 30 June 1954 and the Memorandums of Agreement of 30 November 1993 and 2 February 1995, the rules conferring effective powers to the Commander of Aviano could not be applied to aircraft deployed for the operations in Bosnia (Deliberate Guard). The Memorandum of 1956, relating to the installations at Aviano, did not give the Italian Commander any authority over the DFSs drawn up by the Americans. Nor did it confer powers of veto unless related to formal questions.

On this point, however, the opinions and interpretations examined by the Military Prosecutor's Office were not always consistent.

Gen. Pollice was of the view that the message in the SMA of 21 April 1997 was also mandatory for the Italian Commander, in other words that it contained a precise order.

According to Generals Arpino and Fornasiero, on the other hand, the message could not be interpreted as prescriptive because it had been sent to Aviano for information purposes only.

According to Gen. Vannucchi, there was another anomaly in the Prowler's flight plan, in that the plan had been arbitrarily inserted in the 31st FW's flight schedule, almost as though it was intended to deceive the office responsible for authorizing the schedule.

According to the Military Prosecutor these differences of opinion were a further and eloquent manifestation of the uncertain legislative framework, to the extent that in April 1999 the Tricarico-Prueher Commission recommended the appointment of a designated US authority at the base, who would be responsible for submitting the DFSs to the Italian Commander, certifying that they complied with Italian flight regulations.

During the investigation a further element of uncertainty emerged. Aircraft belonging to the 31st FW are legitimately deployed at the Aviano base by virtue of the Memorandum of 1993 and the subsequent technical agreement of 1994. Other aircraft, however, including the Prowlers, had been temporarily deployed to the same base. The presence of these aircraft was regulated by agreements drawn up on a case-by-case basis, with various code names. The last, in chronological order, was Operation Deliberate Guard. This factor brought different sets of rules into play. For the aircraft deployed for the operations in Bosnia a political agreement had been drawn up, signed by the Italian Minister of Defense and the NATO Command in Europe in 1995. This agreement was divided into three sub-agreements, one for each of the armed forces. While those regarding army and naval forces had been signed, the one regarding air forces had not, although it was the only agreement that granted the Italian Commander of Aviano effective powers of control over flights, not least because the Memorandum of Understanding of 30 November 1993 and the technical agreement of 11 April 1994 would not have applied to aircraft – like the Marine Prowlers – that were not permanently stationed at Aviano.

In the opinion of the Military Prosecutor's Office of Padua, this uncertain legislative framework made it difficult to bring charges under the offence pursuant to Article 117 c.p.m.p., not least because the duties of coordination with the American authorities and of checking flight schedules were not easily reconciled with the concept of « assignment of a responsibility ».

The Military Prosecutor therefore asked that the case against Col. Durigon be dismissed.

3.2 The order for dismissal issued by the examining magistrate

The examining magistrate accepted the request for dismissal advanced by the Military Prosecutor's Office. However, the magistrate employed different reasoning to reach this decision.

The first point to be considered is that, as the records of the investigation conducted by the Public Prosecutor's Office of the Court of Trento show (see the appropriate chapter), it was decided that Col. Durigon, initially investigated for the same alleged offence as the members of the Prowler crew and the American commanders of the 31st Fighter Wing stationed at Aviano, should be investigated under separate proceedings. On 6 October 1998 Col. Durigon's position was entered as relating not to *concorso in omicidio colposo plurimo* and *attentato colposo alla sicurezza dei trasporti* but with the offence pursuant to Article 117 c.p.m.p As a result, the Public Prosecutor of Trento ordered that the records be sent to the Military Court at Padua, where the Military Prosecutor's Office had already opened an independent investigation of the same charge, in order to consolidate the actions given the objective and subjective connection between the two.

Ample evidence was found, not only through the investigation carried out by the Military Prosecutor's Office but also through the information contained in a file obtained from the 3rd Air Staff Unit in Rome, to show that from 1 January 1993 to 31 January 1998 there had been a large number of low-level flights by US aircraft taking off from Aviano, which always been a cause for concern for the safety of the local population and, not infrequently, also a cause also of damage to property.

This fact was widely known – and in any case the Italian Commander would have had a duty to know it – just as it was clear that Col. Durigon did not take any action to prevent or halt this practice.

In point of law, the questions were posed of whether and to what extent this practice of low-level flights was unlawful, according to the provisions in force; whether the Commander of the Aviano base had duties involving supervision, control and coordination with the American commands based there; and, finally, whether Col. Durigon's conduct constituted the crime of failure to carry out an assigned responsibility as envisaged by Article 117 c.p.m.p. (7)

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(7) With regard to the first point, low-level flights were considered to be in clear breach of the national provisions (including the SMA of 21/4/97). With regard to the second, the examining magistrate took the opposite line to the Public Prosecutor and dismissed any suggestion that the legislation on the duties and powers of the Commander of the Aviano base could be considered so incomplete as to justify differences of interpretation, since these powers are expressly set out in various legislative texts, which in turn also influence the way the restrictions on low level flights are interpreted. Indeed, according to the North Atlantic Treaty and the Memorandum of 14/5/56 concerning the airbase of Aviano, in order to enable the Italian Commander to perform his liaison role the US military authorities must keep him informed of the activities and general requirements of the American military bodies. Article 9 of the subsequent Memorandum of Agreement of 30/11/93 specifies clearly that the Italian Commander is responsible for air traffic and for issuing flight safety regulations, after consultation with the American Commander on any aspects that involve his resources; that the Italian Commander must inform his US counterpart whenever US military activities do not respect the international agreements or Italian law; and that any differences not resolved locally should be referred to their respective superiors. The tenor of paragraph 2 of the technical agreement of 11/4/94 is similar. Paragraph 9 even adds the requirement for the Italian Commander to take steps with his US counterpart to ensure that he corrects or suspends any American military activities that violate Italian laws and regulations and might cause a clear danger to human life or public health. In setting out the tasks of the Commander of the airport of Aviano, staff organization schedules 8-15, in the SMA of 10/8/94, also lay down that he should control any non-national and NATO operational activity carried out by the divisions deployed.

In the examining magistrate's opinion, the unlawfulness of the flight in question and a sufficiently clear picture of the powers and responsibilities of the Italian Commander were both apparent. Although he did not have the power to ban a flight planned in violation of Italian regulations, he was obliged to take action with the American Commander to ask him to correct or suspend the flight, and to consult his superiors if agreement could not be reached.

Nor, according to the examining magistrate, were there valid grounds to object that the Memorandum of Understanding of 30 November 1993 and the resulting technical agreement of 11 April 1994 did not apply to aircraft – like the Marine Prowlers – not stationed at Aviano: rather, in the absence of special instructions the general provisions on the use of the Aviano base and the powers and responsibilities of the Italian Commander should have been applied in full. Moreover, all the Memorandums of Agreement expressly uphold the full application of both international and Italian law. Thus, if the provisions relating solely to the units permanently based at Aviano had not been applicable to the Prowlers, they would in any case have come under the even more restrictive regulations on low-level flights since, by virtue of the provisions of the BOAT manual alone, express authorization for such flights was already required in all cases.

What could not be argued, however, was that where no specific sources of international law applied, the flight operations of aircraft deployed for Operation DG would have been free of any restrictions whatsoever.

Finally, with regard to the responsibility of Col. Durigon, the examining magistrate asserted that the officer's duty was to ensure, at the very least, that more information was made available to the US military commands (who might, he suggested, also bear a degree of responsibility) with regard to low-level flight restrictions. Col. Durigon should have paid more attention to the DFSs submitted for approval: instead of authorizing them despite of their obvious irregularities, he should have warned the American commands directly and, if this warning was not heeded, informed his Italian superiors.

In the examining magistrate's opinion, however, failure to perform these duties did not constitute an offence under Article 117 c.p.m.p., which punishes « a commander of a military force who, without justified cause, fails to carry out a responsibility assigned to him », not because of the argument by his defense counsels to the effect that Col. Durigon was not the commander of a military force (he was after all Commander of the Aviano military base) but because the technical legal concept of « assignment of a responsibility » did not apply in this case. (8)

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(8) On this point the examining magistrate recalled a legal precedent from the same Military Court of Padua and observed that the concept of assignment of a responsibility should not be confused with the general and abstract provisions contained in sources of international law, but must have as its object the personal conferral of tasks and service objectives to be pursued using means and procedures to be adopted on a discretionary basis. He did not consider SMA-332/00175/G39/SFOR to be classifiable as an assignment of a responsibility, since it was addressed not to one but to several recipients and was sent for information to the acting commander of the airport of Aviano (who at the time was not Col. Durigon, as he only took command in September 1997): the message contained a provision that was required to be applied, but did not confer any specific charge.

The examining magistrate therefore accepted the Military Prosecutor's Office's request for proceedings to be dismissed.

Nevertheless, recognizing that Col. Durigon might have a degree of responsibility for negligent offences against public safety in relation to the numerous low-level flights that had produced situations of grave danger, he ruled that the records be transferred to the Public Prosecutor's Office of the Court of Trento. This ruling only concerned events preceding the tragedy of 3 February 1998, since with respect to this event the initial proposed charge against Col. Durigon had been reduced. The examining magistrate also ruled that the records relating to possible responsibilities on the part of the American commanders at the Aviano base, again with respect to events prior to 3 February 1998, be transferred, since for these events the sending State did not appear to have exercised its right to primary jurisdiction.

4. THE MILITARY INQUIRY IN BARI

On 6 October 1998, the Public Prosecutor's Office of Trento, during the investigative phase relative to the Cermis disaster, sent a copy of part of the record of the proceedings to the Military Prosecutor's Office of Bari, requesting that it determine whether any offences had been committed by members of the Italian armed forces within the jurisdiction of the Public Prosecutor. In particular, the Bari Public Prosecutor was assigned the task of establishing whether offences under Article 117 c.p.m.p. had been committed by the director of the ATCC in Martina Franca, Lt. Colonel Celestino Carratù (identified at the time as the responsible party in the chain of command) for failure to perform an assigned responsibility *(omessa esecuzione di un incarico*), consisting specifically in prohibiting low-level flights over Italian territory.

The charge is based on the conjunction of two different circumstances: the authority of the COA/COM in Martina Franca to authorize the daily flight schedule prepared by the American forces stationed in Aviano; and the transmission of message SMA-322/00175/G39/SFOR, dated 21/4/1997, from AEROROC (the Air Region Operational Command) of Martina Franca, which acknowledged that low-level flights should not be authorized over Italian territory and national waters, with the exception of ad hoc exercises.

Regardless of the effective authority of the COA/COM in Martina Franca to authorize the flight that led to the Cermis disaster (accepting that this authority regards the daily flight schedules of the 31st FW of F16s permanently stationed in Italian territory and not those related to airplanes deployed in Aviano for military operations in Bosnia, which instead fall under the authority of the CAOC of the 5th ATAF in Vicenza), the investigating bodies in Bari also wished to verify whether or not, in view of message SMA 175, which was known at the time the Martina Franca COA/COM authorized the flight plan of the aircraft, director of the center was under any obligation to prevent the execution of the flight.

In order to better understand the logical procedure that led the investigating body to rule out any responsibility on the part of the directors of the Martina Franca COA/COM, prompting it to ask the examining magistrate, who agreed with its reasoning, to dismiss any the dismissal of the criminal proceedings, it is necessary to clarify the authorization procedure for military flights and, above all, the origin and scope of message SMA 175.

In order to coordinate all flight activities planned over Italian territory in order to ensure airspace safety, each command that makes use of the aircraft must submit a daily flight schedule (DFS).

After the DFS is drawn up, it is sent to a department of the COA/COM (formerly ROC), that, before authorizing the DFS by means of an ASMIX message to the requesting command, determines whether that specific flight activity is compatible with all that planned for the same day. The DFS is then sent to the ATCC the day preceding the planned flight in order to allow time for verification. Following this procedure, on 2 February 1998, the DFS for the following day arrived at the Martina Franca COA/COM from the NATO base at Aviano. In addition to the planned flights for the aircraft airplanes of the 31st FW stationed at the base, the DFS also considered the further request for authorization of mission EASY 01, related to low-level flight AV047 BD, planned for an American military airplane stationed on Italian territory as part of Operation DG. The Martina Franca COA/COM then authorized the DFS including the low-level flight AV047 BD that provoked the disaster.

Against this background, it should also be reported that, following protests from the public in the Trento area at the growing frequency of very low-level flights by American military aircraft stationed in Aviano, the Italian Air Force Chief of Staff called a meeting in Rome on 17 March 1997 with the commanders of the air forces stationed on Italian territory in order to agree solutions that would reconcile military strategic and training needs with those regarding the socio-environmental impact that, aside from the discontent of the more closely-affected population, had also prompted several parliamentary inquiries. The results of the meeting were then communicated in SMA/175, which, confirming the reasons that prompted the Air Staff to intervene, contained a series of indications limiting flight activity in Italian territory, summarized below in order to ensure a better understanding of the reasoning employed by the investigating bodies in assessing the non-mandatory nature of the message as follows:

1) as from April 1997, unless particular situations require the use of the aircraft on alert, no units stationed in Piacenza and Villafranca will carry out any activities on weekends or national holidays;

2) the activities of the E3Ds and attack aircraft stationed at the Aviano airport will be limited on weekends;

3) since most of the aircraft operating as part of Operation DG are concentrated in Aviano and it is impossible to completely halt all

flight activities during the weekend, special care must be take during the planning of NATO missions for operations in Bosnia-Herzegovina;

4) the total daily duration of flight operations connected to DG must be reduced to a maximum of eight hours on weekdays, six hours on Saturday and five hours on Sunday;

5) whenever possible, the time period mentioned in the previous point must be shifted toward the late morning hours in order to reduce noise during the early part of the day;

6) night flights must be limited to two days a week unless unforeseen or emergency situations require otherwise. This limitation does not apply to electronic intelligence aircraft (ELINT) or early warning aircraft (NAEW);

7) training activities will be authorized only for aircraft used in DG and will be reduced from 1.2 to 0.9 flights per airplane;

8) no training activities will be planned for weekends or Italian national holidays;

9) no low-level training activities will be authorized on Italian territory or over national waters unless part of ad hoc exercises;

10) CAT FLAGS activities will be authorized as planned;

11) LAO (Local Area Orientation) flights will be carried out on weekdays only where possible;

12) the recall of units for periodic training shall be reduced to the minimum necessary;

13) maximum care must be taken during planning to minimize the environmental and social impact of DG-related operations.

In view of point 9), under the assumption that the activities of units operating within the area of responsibility of the 1st ROC, which includes the Aviano airport, were – during the period in question – under the control of the ATCC of the 3rd ROC in Martina Franca, reorganized into the COA/COM, the investigating magistrate in Bari opened the inquiry on the grounds of the possible commission by Lieutenant Colonel Celestino Carratù of an offense under Article 117 c.p.m.p. « since as commander of a military force, namely director of the ATCC of the COA/COM, formerly the 3rd ROC, in Martina Franca, having received an order, with message SMA-322/00175/G.39/SFOR, from the Italian Air Force Chief of Staff, dated 21 April 1997, not to authorize low-level flights in Italian territory unless otherwise approved for ad hoc exercises, he failed to perform the duties entrusted to him since he not only gave no subsequent direct orders not to authorize low-level flights, but also authorized flights plans that included low-level flights ».

Over the course of the inquiry, the investigating authorities in Bari nominated a technical consultant in order to verify whether or not, following receipt of message SMA 175 on the part of the ATCC in

Martina Franca, the latter transmitted authorizations for a DFS (ASMIX) in violation of the restrictions and, in particular, whether or not authorizations were given for low-level flights under two thousand feet.

On the basis of the case documentation, the technical consultant divided the thirteen points listed above, included in message SMA 175, into four groups:

indications (points 3, 5, 11, 12, 13);

limitations (points 2, 4, 6);

prohibitions (points 1, 7, 8, 9);

authorizations (point 10).

The technical consultant proceeded to determine which authorizations were granted by the ATCC in Martina Franca in violation of the limitations and prohibitions imposed by SMA 175 during the period between 1 November 1997 and 6 February 1998.

From the investigation, the fact emerges that thirty-six authorizations for low-level flights had been granted, and the latest directives limiting the environmental impact of military flights had not been applied in several authorizations.

In particular, authorizations were granted for: twenty-five low-level missions; three mid-level missions with part of the mission conducted at low-level; six high altitude missions with part of the mission at low-level; and two missions at a non-specified level with part of the mission conducted at low-level.

Lieutenant Colonel Carratù, in questioning by magistrates from the Military Prosecutor's Office on 20 April 1999, did not deny that the authorizations had been granted, but in admitting to having received message SMA 175 stated that since the message had been sent to the Martina Franca ATCC for information purposes only, it had been immediately filed.

Lieutenant Colonel Carratù said that in the space reserved for recipients of messages, it was customary to indicate separately the names of the bodies to which the message was forwarded for action (TO) from those for information only (INFO).

Since the message was sent to the ATCC in Martina Franca for information only, it could not be considered binding, being instead with a simple declaration of intent between the Air Force Chief of Staff and a number of NATO representatives. The message was in fact transmitted for action (TO) only to the NATO Command in Mons and other NATO bodies.

Lieutenant Colonel Carratù submitted a copy of a synopsis of the publication from the Chief of Staff – March 1984 edition – where point (3) reads: « Addresses – in the space reserved for addresses (TO/FM) the author shall indicate the name and location of the body sending the message (...). In the space reserved for the recipients, separate indication shall be given of the bodies to whom the message is sent for action (TO) and for information (INFO) ».

The dispatch of a later message dated 6 February 1998 SMA-322/1141/G39/SFOR (sent three days after the Cermis disaster), forwarded to the Martina France COA/COM as standard procedure, could not retroactively change the meaning and scope of message SMA 175.

It should be clarified that after the incident of 3 February 1998, the Italian Air Force Chief of Staff issued message SMA 1141, which reaffirms that the preceding message of 21 April 1997 « clearly stated that from that time on no low-level training activities were authorized in Italian territory or over national waters, unless otherwise authorized for ad hoc exercises ».

Lieutenant Colonel Carratù's defense was accepted by the investigative bodies who, on 13 July 1999, asked the examining magistrate at the Military Prosecutor's Office in Bari to dismiss the proceedings against Carratù.

4.1 Arguments at the basis of the request for dismissal of criminal proceeding n° 29/99/IA/R.N.R. against Lieutenant Colonel Celestino Carratù

The legislative basis for charging the director of the COA/COM with an offense under Article 117 c.p.m.p. for failure to carry out an assigned responsibility, consisting both in giving instructions not to authorize low-level flights and the prohibition on authorizing low-level flights, was correctly identified by the investigating bodies in the « assignment of a responsibility » to Lieutenant Colonel Carratù.

The public prosecutors assigned to the inquiries determined that message SMA 175 of 21 April 1997 could not objectively be considered the assignment of a responsibility to the director of the ATCC of the AEROROC in Martina Franca.

The message was in fact simply the result of a technical meeting organized between the Italian Air Force Chief of Staff and several NATO representatives in order to examine possible solutions to minimizing the social and environmental impact on Italian territory of foreign aircraft stationed in Italy for the NATO DG operations connected to the Balkan crisis.

Message SMA 175, and in particular the statement forbidding the authorization of low-level flights, could not be considered of a mandatory nature. In the view of the investigating bodies, the literal meaning of the message, which in the first point indicated the objectives to be achieved (i.e. minimization of environmental and social impact) and in the following point contained a summary of solutions/actions designed to achieve these goals, confirmed the defense offered, i.e. the mere informative nature of the message itself.

The request for dismissal states that if the intent of the communication had been to order the recipient not to authorize flights other than those permitted in the instructions, not only should it have been more explicit (without merely limiting itself to identifying possible solutions or actions), but it should also have specifically identified the Martina Franca COA/COM as one of the recipients responsible for implementing the message's contents.

This could not be considered to have been done, since the Martina Franca COA/COM was sent the message for information purposes only (as noted earlier, the address of the COA/COM was preceded by the routing abbreviation « INFO »).

To underscore the non-mandatory, informational nature of message SMA 175, the investigating bodies in Bari focused on the different formulation used in message SMA 1141, dated 6 February 1998, which, in an attempt to provide an authentic *ex post* interpretation of message SMA 175, identified the Martina Franca COA/COM as one of the subjects receiving the message for action.

The public prosecutors concluded that message SMA 175 could not objectively be interpreted as an order to the director of the ATCC of the former 3rd ROC in Martina Franca given that the structure of the addresses and the organization of the text could not be seen by the AEROROC in Martina Franca as imparting immediate direct orders.

4.2 Motives for the order for dismissal by the examining magistrate of the Military Tribunal in Bari

Upon the request for dismissal of the criminal proceedings advanced by the investigating bodies, the examining magistrate, on the basis of the records of the proceedings and the report drafted by the public prosecutor for his hearing before our Committee – transmitted to the examining magistrate following the request for dismissal and before the parliamentary hearing, set pursuant to Article 409 of the Code of Criminal Procedure (c.p.p.) – dismissed the proceedings on the basis of the following considerations.

In order to bring a charge under Article 117 c.p.m.p., which states: « The commander of a military force who, with no justified motive, fails to perform the responsibility assigned to him, shall be punished by military imprisonment of up to three years... If the failure to perform the responsibility is due to negligence, the penalty shall be military imprisonment of up to one year », it would be necessary, as noted in the request for dismissal, for the commander of the Martina Franca COA/COM to have been assigned such a responsibility with the transmission of message SMA 175.

The examining magistrate underscored the need to distinguish a responsibility from an order. A responsibility would allow a certain margin of discretion to the person charged with its performance; by contrast, an order must be executed and failure to do so would open the way to a charge of insubordination.

The examining magistrate also noted that, according to well-established judicial precedent, any charge of failure to perform a responsibility would require the responsibility to have been formally and individually assigned to the commander by the competent military authority, as such a duty cannot be inferred from regulations or other provisions; in other words, the responsibility must be assigned to the commander directly and specifically, not through general and abstract provisions.

Furthermore, the examining magistrate stated that any offense would require the assignment of a concrete and specific responsibility and the conscious or negligent failure to perform such responsibility.

The examining magistrate, in addition to the considerations already made by the prosecutors in requesting dismissal of the proceedings, underscored the absolute uncertainty regarding the restrictive nature of message SMA 175. The examining magistrate noted that, during the course of the proceedings in Bari and Trento (from which parts of the declarations were taken), the various qualified members of the armed forces expressed divergent opinions in this regard, thereby supporting the argument that the wording of the text was unclear and that it was therefore impossible to maintain that the contents of the document were binding.

The examining magistrate further indicated that the general regulations for ACP 121 communications envisage:

an obligation for the sender to establish the recipients and type of message (Article 304);

an obligation to specify whether or not the message was for action by the recipient as « a competent body » or for information purposes only (Article 307);

that the recipient for action is the person or body whom the sender considers must take the necessary actions indicated the text, while recipients for information are those who must have knowledge of the same (Article 310).

The examining magistrate therefore concluded that since it could not be determined that a duty had been formally and individually assigned to Lt. Colonel Carratù, the intellectual aspect of the subjective element of the crime, i.e. the awareness of having been assigned a duty, must subsequently be considered lacking.

The proceeding opened by the Bari judiciary was therefore closed with the dismissal of the same on 25 March 2000.

5. THE AMERICAN MILITARY ADMINISTRATIVE INQUIRY

5.1 Report of the Command Investigation Board – Introduction

The inquiry performed by the US military Command Investigation Board (CIB) was summarized in a report that we felt should be examined with special attention, given its importance both as a source of considerable information as well as an expression of the commitment of the United States to clarifying the tragic events.

The methodology followed was that of ascertaining and illustrating the basic facts while at the same time indicating, where necessary, any elements of doubt, observations and opinions on important aspects. This engendered a certain repetitiveness where the same fact was reported from different perspectives, repetitions that were not eliminated as they contribute to clarity and analyzability. The report is made

up of an introductory section, containing a « preliminary report », and fourteen subsequent sections. The document concludes with a number of recommendations.

5.2 Standardization Agreement – STANAG 3531

Before proceeding with the examination of the report, it should be noted that NATO has drafted a regulation that standardizes methods of conducting inquiries into air mishaps involving the other nations in the Atlantic Alliance. The regulation is called STANAG (Standardization Agreement) 3531. The agreement provides for the performance of a technical safety investigation for the sole purpose of ensuring flight safety and does not apply to investigations intended to search for and apportion administrative responsibility and identify criminal actions, or for any purpose other than that of flight safety. The basic objective of the investigation is accident prevention.

The air mishap inquiry shall be totally separate from any other investigation not intended for prevention that might be required by the laws of the nations involved.

STANAG 3531 states, as a general rule, that the responsibility for conducting the Aircraft/Missile Accident Safety Investigation be delegated to the military authorities of the country that operates the aircraft, although it also indicates that the country where the accident occurred shall be formally charged with the investigation; only where the former is not capable of carrying out the inquiry shall effective responsibility to be reassigned to the country of occurrence.

Furthermore, the regulation also envisage the convening of an Aircraft/Missile Safety Investigation Committee, which shall be made up of groups of investigators, technical and medical assistants and observers belonging to the individual countries involved to the extent they consider this necessary.

The country that employed the aircraft in the accident shall normally provide an investigative group to serve as the nucleus of the Safety Investigation Committee.

In turn, the country on whose territory the accident occurred may make available its own investigative group to the Safety Investigation Committee, both as member or observer, and it may conduct its own technical investigation at its discretion.

STANAG 3531 recommends that there be a single accident safety investigation with the participation and support of the involved nations, and further indicates that the opportunity given these nations to carry out independent accident safety investigations is intended to allow these countries nations to investigate in compliance with the laws, procedures and agreements of their own legal system. The STANAG then states that anyone who through their assigned duty might be directly associated with the cause of the accident or have a personal interest in the outcome of the investigation may not participate as a member or observer on the Safety Investigation Committee even as a consultant.

STANAG 3531 was ratified and implemented by the United States in 1991 with one reservation: it reserves the right, as the operating country, to conduct, at its own discretion, a separate accident safety investigation rather than appointing a investigating committee composed of members of all nations involved. 'Privileged' information obtained by a US Air Mishap Board will not be divulged, notwithstanding the content of STANAG 3531 and STANAG 3101, regarding the exchange of information related to aircraft or missile accidents.

5.3 Preliminary statement

The initial section of the CIB's report illustrates:

how the CIB was activated;

how the investigation was coordinated;

the names of the Board participants, including its members, special assistants, consultants, observers and support staff;

jurisdiction issues;

methodology;

additional written orders communicated to the CIB on 2 March 1998;

the list of enclosures;

the organization of the CIB's findings of fact and opinions.

On 3 February 1998, Lieutenant General Peter Pace, Commander of the US Marines Corps Forces Atlantic, verbally ordered Major General Michael DeLong, of the USMC, to conduct a command investigation (an administrative investigation essentially aimed at identifying possible blame) into the circumstances that may have led to the Cermis disaster.

The members of the CIB arrived in Aviano on 5 February 1998 and took charge of the inquiry, replacing a group of US personnel stationed in Aviano that had already begun to take steps to collect and preserve evidence.

The CIB noted that there were three investigations underway: the investigation of the Trento judiciary; the flight safety investigation of the Italian Air Force and the investigation of the USMC Command.

The CIB acknowledged that collaboration between all the investigative authorities involved had helped to overcome certain initial difficulties and proceed without delay in collecting and preserving evidence. The CIB stated that, because of the gravity of the mishap and the need for maximum transparency, the Commander of US Marines Corps Forces Atlantic had ordered a « privileged » safety investigation to be carried out subsequently (in accordance with OPNAVINST 3710 regulations) and/or satisfied, using the command investigation as a reference. The Commander furthermore ordered a CIB to be convened

in accordance with the Naval JAG Manual, with specific attention paid to the preservation of evidence and full legal protection of those who might be suspected of having committed a crime.

The CIB noted that the NATO Military Agency for Standardization provides that an inquiry be conducted according to STANAG 3531, described in the preceding section, when an aircraft mishap involves aircrews, personnel and infrastructures of two or more nations but, in consideration of its mixed composition (because of the presence of the Italian commander of Aviano, Col. Orfeo Durigon) and the full collaboration between the members of the three investigating bodies, maintained that the report drafted met the requirements called for by STANAG 3531 for the investigation of the Cermis accident.

The President of the CIB was Major General DeLong, who was joined by three other members, including two officers from the USMC and one from the Italian Air Force, Colonel Durigon. Three officers from the USMC and one from the US Air Force were special assistants; a large percentage of the consultants and observers belonged to the USMC.

The observers included Colonel F. Missarino, chairman of the Italian Air Force Flight Safety Investigation Board. At the time the report was drafted, the United States claimed priority of jurisdiction based on the NATO SOFA. The Italian Ministry for Foreign Affairs asked that they waive this claim but the reply had not yet arrived from the United States.

While waiting for the jurisdiction issued to be resolved, the United States agreed not to allow the six Marine officers considered possible subjects of investigation by the Italian judiciary to leave the Italy without coordinating with the appropriate Italian authorities. The six officers comprised the four members of the crew of the aircraft that caused the disaster, Captain B. Thayer, suspected of perjury, and Lieutenant Colonel Muegge, Squadron Commander, because of his connections with the actions of the crew.

The CIB carried out its activities in seven phases:

collection of data/evidence;

analysis of data/evidence;

preparation of statements of fact;

analysis of statements of fact;

development of opinions;

development of conclusions;

development of recommendations.

The first two phases were the subject of detailed discussion and commentary, while the other five phases consisted in deliberations of the CIB. In the data collection phase, the members of the CIB carried out inspections of the disaster area on three different occasions; met with various Italian and US experts on the area of the accident and the cable car system; carried out investigations in all sectors of the

squadron, including operational procedures and directives from higher commands; reviewed mission data recorded by the aircraft involved in the accident as well as the AWACS; photographed all evidence; interviewed squadron personnel; reviewed testimony by thirty Italian witnesses.

The CIB mentioned the difficulty of obtaining statements from the crew. The members of the aircrew initially seemed willing to be questioned by the CIB, which had prepared a seven-page questionnaire, and asked for the scheduled date to be postponed in order complete this document. However, their attitude subsequently changed. Before the Court of Trento, the crew availed itself of the right to remain silent and, subsequently, did not allow the transcripts of their own verbal statements to be delivered to the court. The CIB itself managed to obtain only the reading of a brief statement, under oath, from each member of the crew on 11 February 1998. The CIB noted that many sections of the statements were similar. The Italian court did not allow the CIB to hear Italian witnesses while the investigation was under way, but subsequently made the records available.

During the analysis phase, all data and evidence, including the statements, were considered in order to determine the professional histories of the crew, the level and quality of their training, the operating condition of the aircraft before and during the flight and the damage caused by the mishap, the regulations governing low-level flights in Italy, and the planning and performance of the flight. In this phase the CIB reconstructed and analyzed:

the statements of the crew;

the data taken from the flight recorder of the EA-6B aircraft;

the data taken from the flight recorders of the NATO AWACS aircraft;

twenty-seven statements by witnesses.

As a basic principal for analyzing the data, the CIB established that at least two of the three possible sources of information (flight recorders, statements, AWACS) needed to agree in order to validate flight levels along the course.

Finally, the CIB analyzed the « character » of the entire mission in an attempt to identify the cause of the accident. On 2 March 1998, when the investigation was about to close, the CIB received a written order regarding its constitution, thus formalizing the initial verbal order, and at the same time arranged for a further investigation into the following questions:

the extent to which the VMAQ-2 squadron had been informed of the regulations governing low-level flights;

the extent to which the regulations governing low-level flights had been disseminated within the VMAQ-2 squadron;

what actions had VMAQ-2 taken to apply these regulations;

whether or not VMAQ-2 aircrews deliberately flew below the required limit and, if so, what corrective actions had been taken; and

whether the aircraft radar altimeter played a role in the accident and, if so, what had that role been.

The results of the inquires intended to answer these new questions were included in Section XIII of the report, added subsequently. These results, like those that emerged regarding the statements of Brigadier General Peppe and Lieutenant Colonel Muegge (Section XIV, added subsequently), did not substantially influence the conclusions.

The different types and levels of authority in the chain of command were indicated and clarified: COCOM (Combat Commander), the highest level command authority (which cannot be delegated or transferred) in the US forces assigned to combat commands; OPCON (Operations Control), the command authority delegated to echelons of forces under the Combat Commander; TACON (Tactical Control), the command authority delegated over forces assigned or grouped for the execution of local-command operations in a well-defined sector. In this introductory section, the decision to convene a CIB rather than a Accident Safety Investigation Committee or, alternatively, a US Air Mishap CIB, as provided for in STANAG 3531 and the reservation governing applicability to the United States. In fact, a « privileged » investigation into flight safety would very likely have obtained complete and truthful testimony from at least some the persons involved. The decision to proceed with a command investigation, aimed at ascertaining responsibility and the subsequent risk of incrimination of those involved, ensured that the latter would either avail themselves of the right to silence or else submit verbal statements that were partial and limited to subjects considered useful by defense attorneys. The declaration of maximum transparency that a command investigation was supposed to achieve does not appear credible. In fact, the gravity of the incident should have prompted the United States to apply the provisions of STANAG 3531 and waive its reserved right to investigate on its own account and to not divulge the contents of the privileged reports, constituting instead Accident Safety Investigation Commission or an Air Mishap Board.

This Committee is especially concerned by the decision taken by the Commander of US Marine Corps Forces Atlantic to convene the CIB, postponing the privileged investigation into flight safety called for by STANAG 3531, and by the opinion expressed by said Commander that the report of the CIB would be used as a basis for the investigation required under STANAG 3531. This seems contradictory, considering that STANAG 3531 requires the complete separation of the flight safety investigation from all other investigations. Furthermore, the unilateral statement that the composition of the CIB and the full cooperation of all investigating bodies would ensure that the CIB's report would satisfy STANAG 3531 provisions governing flight safety investigations is debatable.

It is also felt that the CIB was excessively prudent in defining the necessity of having agreement between at least two out of three

possible elements to validate flight levels as a basic operating principle, at least as regards AWACS data, which should have been considered indisputable, as discussed in greater detail in the considerations in Section VII.

On their part, the Italian military authorities perhaps failed to perceive that the participation of the Italian Commander of the Aviano Airport, Colonel Durigon, in the CIB and the assignment of the duties of President of the Italian Air Force Commission to Col. F. Missarino, former Italian Commander of the Airport at Aviano, in addition to his role as observer with the CIB, might not have been, even if only in principal, perfectly compatible with the requirements for impartiality indicated by STANAG 3531.

5.4 Analysis of the Report

Let us now examine the contents of the sections of the report listed below:

I – Squadron Information

II – Aircrew background

III – Pre-flight planning/brief

IV – Mishap aircraft

V – Aircrew training/proficiency

VI – Low-level flight rules and the dissemination of those rules

VII – Mishap flight from take-off to striking cable

VIII – Character of the execution of the mishap flight

IX – Mishap flight from cable to landing

X – Supervisory factors

XI – Deaths and damage to military and civilian property

XII – Conclusions (stated in the final conclusions)

XIII – Supervisory error investigation

XIV – Statements between Brig. General Peppe and Lt. Col. Muegge

The analysis refers to « findings of fact » regarding the subjects of the sections. These « findings of fact » are followed by the opinions expressed by the CIB and any considerations of this Committee.

A separate section contains the final conclusions, including those not reported in Section XII, the recommendations of the CIB regarding disciplinary and administrative measures and the final considerations of our Committee.

Section I. Squadron Information.

Findings of fact.

The VMAQ-2 Squadron, during the six months spent at the base in Aviano from its deployment on 22 August 1997 to 3 February 1998 (they began flight operations on 26 August 1997 after receiving instructions on flight procedures from the host unit, the 31st FW), carried out a total of 254 missions, including 164 for Operation DG, 69 for squadron training and 21 functional checkflights. Included in the 69 training sorties were 11 low-level flights (4% of the overall 254 flights). As regards training activity, in consideration of the priority nature of DG missions and the requirement not to interfere with these, training missions were authorized by the Commander Striking Forces South.

Planning of these missions (for training, functional checks, etc.) was to be done in accordance with the Training and Readiness Manual (hereinafter « T & R »), Vols. I and II, and approved by the Squadron Commander (in this case, Lieutenant Colonel Muegge). From the examination of squadron procedures and interviews during the visit to the squadron, the CIB noted a very professional atmosphere.

Opinions.

The VMAQ-2 Squadron, after its regular deployment in Aviano, operated correctly and, for its entire period there, maintained the mission in the Bosnian area as their primary purpose and not low-level training.

The chain of command of the USMC squadrons was complicated but did not cause the accident.

There did not seem to be any careless attitude or lack of discipline within the squadron.

Considerations.

In commenting on the chain of command, the CIB limited itself to admitting its complexity but did not go any further. For example, it did not attempt to speculate that this same chain, considering the series of delegations of authority along both national and NATO lines of command, regarding the situation of the deployed unit, could have weakened command activity to some extent, effectively rendering it less efficient and decisive. It does not seem unreasonable to suppose an attenuation or discontinuity in control on the part of the higher authorities above the VMAQ-2 Squadron. This could have created the presumption of the allowing, perhaps with some tolerance, the Squadron Commander full autonomy in decisions on low-level training flights not intended for operations in

Bosnia and in the evaluation of the squadron's needs. In this context, the following aspects are considered:

the chain of command, operating at the top of the various NATO Commands in the European theater, namely SHAPE, AFSOUTH, AIRSOUTH (where US commanders had, and still have, both NATO and national roles in their positions), was the recipient of message SMA/322/00175 of 21 April 1997 (dealt with extensively in the preceding chapters of this part of this report), regarding low-level flight training activities in Italy for units participating in Operation DG. Despite this, and leaving aside the matter of the mandatory or non-mandatory nature of the content of the message, no evidence or element emerged that would confirm that the authorities of the US and NATO chains of command gave any importance to its contents concerning low-level flights (nor did it emerge that the issue had been the subject of any investigation). In effect, it does not appear that the message, once received by the NATO commands, was forwarded to subordinate units and bodies as advance notice, with possible instructions or indications regarding arrangements, suggestions or clarifications, with possible instructions or suggestions concerning measures that might potentially be adopted. Similarly, no confirmation or reaction was given by the US chain of command;

the US Commander Striking Forces South, who authorized the training flights for the VMAQ-2 Squadron, could have easily acquired, through his permanent representative at the CAOC of the 5th ATAF, current data regarding possible restrictions, in particular those related to the SMA message of 21 April 1997. This could have been done along with the appropriate clarifications on the conduct of low-level flight activities, as in the specific instructions communicated by the 5th ATAF to representatives of the nations participating in Operation DG, including those of the US commander mentioned above;

from the above, it could be conjectured that the authorities in both the US and NATO lines of command may have considered the SMA message of 21 April 1997 to be of an informative nature, and thus in a different manner from the way it was understood by the Commander of the 5th ATAF who, as he stated to Italian magistrates, independently adopted measures without waiting for any confirmation from superior NATO Commands because the message was in his view of possible interest;

furthermore, the CIB emphasized the highly professional atmosphere observed in the visit to the squadron after the accident, noting in particular the lack of any apparent careless or superficial attitudes. However, it did not conduct, as might have been advisable, a more targeted and thorough investigation of the period preceding the mishap. However, this previous period appears to have been characterized by a widespread lack of attention (not only on the part of the aircrews but also the officers in charge) to the responsibility of keeping up-to-date on regulations, instructions and information regarding flight activities in Italy. By focusing more closely on the attitude of

aircrews toward this important subject before the accident, it might not have been difficult to find signs of carelessness, insufficient interest and even negligence, indicating a lack of awareness of the regulations for low-level training flights. An example here is the fact that, despite the initiative and diligence of a squadron officer, who up-dated the binder of unclassified instructions and made a public announcement, during a meeting of flight personnel, of the important information collected there, aircrews continued to be unaware of the existence of precise flight level limits. All of this stands in sharp contrast to the favorable judgment expressed by the CIB regarding professionalism. Again in this regard, the CIB gave no evidence of any analysis of previous flights performed at low altitudes or the intentions, methods and conduct of the related aircrews.

Section II. Aircrew background.

Findings of fact.

The aircrew of EASY 01, consisting of Capt. Ashby, Capt. Schweitzer, Capt. Raney and Capt. Seagraves (whose respective duties and information on hours of flight time, both total and over the previous 30 days, were detailed above), was examined by the Squadron Commander, the Operations Officer, the Training Officer and the Director of Safety and Standardization, and judged very professional, in possession of excellent skills and coordination. In the opinion of the twelve members of other aircrews interviewed and the Commanding Officer, the EASY 01 aircrew was not prone to deliberately carrying out dangerous actions and/or maneuvers violating flight regulations.

Members of the aircrew were all fit for flight in psychological and physical terms (Capt. Schweitzer had had some physical problems in 1993, caused by kidney stones, but recovered and was reconfirmed as fit). In particular, during the 72-hour period prior to the flight, there had been no evidence of any problems of a physical or psychological nature, so the behavior of the aircrew was considered completely normal.

In their sworn statements, members of the aircrew declared not to have acted in an undisciplined manner or deliberately violated the minimum levels established before the flight.

Opinions.

In the considered opinion of the CIB, none of the aircrew had any medical or psychological problem that would represent a risk or jeopardize the execution of the flight.

Considerations.

The opinions of the CIB focused on the lack of psychological or medical impediments to the flight and the exceptional professional skills possessed by the aircrew members based on the statements of other aircrews.

Although already aware of the type, number and degree of the violations committed by the EASY 01 aircrew (in terms of airspeed, altitude and route), along with the fact that the aircrew members had stated that they neither intentionally violated the regulation related to minimum altitude nor did they act in an undisciplined manner, the CIB did not acknowledge or show that the nature of the violations, their repetition and seriousness, especially as regards the markedly lower altitude and much higher airspeed with respect to the established limits, could not be attributed to momentary errors but clearly to a premeditated and consciously considered conduct. It therefore left out any consideration, and therefore formulate any complete opinion, that the behavior of the aircrew in their sworn statements, far from intending to help ascertain the truth, was motivated solely by a desire to protect themselves.

Section III. Pre-flight planning/brief.

Findings of fact.

The report of the CIB contains numerous elements related to the preparatory phase of the flight, presenting various aspects regarding the duties and responsibilities laid down in the NATOPS manual for aircrew members and operations duty officers, along with methods of using the radar-altimeter (RadAlt), the use of charts and other details.

In summary, the report states that EASY 01 was included in the plan drawn up on 2 February 1998 for the next day – with an estimated take-off time at 13:30/z – and approved by the Commanding Officer, Lieutenant Colonel Muegge; it planned for navigation along route AV047 BD.

The personnel already named were assigned to the aircrew. The pilot, Capt. Ashby, assumed the duties of commander; Capt. Seagraves, as ECMO3 was assigned at a later time and added the evening of 2 February. The latter had arrived in Aviano earlier than the rest of his squadron (VMAQ-3, which was to replace VMAQ-2).

The assignment of the ECMO3 occurred after he performed the established preliminaries, having studied the rules of engagement, the search and rescue publication, and answering the quiz on emergency procedures. It was not however possible to ascertain, considering his delayed inclusion in the program, whether or not he participated in the flight planning.

Route AV047 BD was one of the 10 low-level routes approved by the 1st ROC Monte Venda (PD) and assigned to Aviano for the deployed units operating with the 31st FW.

Given the assignments and responsibilities of the aircrew members, each with their own specific role and duty, as indicated in the NATOPS manual, it was an accepted custom in the VMAQ-2 Squadron to place the ECMO1 in charge of planning low-level flight missions and the related instructions to be given to the other members. Captain Schweitzer stated he had begun pre-flight planning by studying the route chart in the afternoon and evening of 2 February, using a chart

found in the files of the Operations Office. It was procedure and common custom to use charts for low-level flights and route charts taken from the chart files of the squadron.

The type of map used in these circumstances, a Tactical Pilotage Chart (TPC 9; F2A and F2B), produced by the National Imagery and Mapping Agency (NIMA) of the US Department of Defense (DOD) did not show the cable in the accident as a vertical obstacle. A cable car path was however indicated over four nautical miles north of Cavalese and five miles north of the point of the accident, within the path of route AV047 BD (inside the 10-mile corridor within which the course was marked). It was specified that it was neither the policy nor practice of the United States to only use maps produced by the NIMA or the DOD when operating outside US air space. The VMAQ-2 Squadron and Standardization and Evaluation Section of the 31st FW were not aware of the existence of Italian maps for low-level flights (scale 1:500,000, Sheet 1, Ed. 2) that described a horizontal obstacle within one nautical mile of the accident area. In accordance with standard operating procedures (SOP), the radar altimeter system used by the pilot for maximum safety in a low altitude environment (NATOPS – EA-6B) was required to be completely functional for low-level navigation. SOP also specified that an Operations Duty Officer (ODO) was responsible for supervising the regular execution of the daily flight schedule, ensuring its completion in a safe, efficient manner. One of the duties of the ODO, in addition to overseeing Operational Risk Management (ORM), was to ensure that the aircrew confirmed, using a specific « read and initial » form, that they were current on all the various procedures and directives in effect. The aircrew stated they received flight instructions in the presence of the ODO on duty, Captain Recce. They specified that they were adequately prepared and had been instructed in an exhaustive, thorough and professional manner in conformity with NATOPS. Captain Schweitzer specified that the minimum altitude for which they had been instructed was 1000 feet AGL, as confirmed by the ODO. However, neither the aircrew nor the ODO were aware of the 2000-foot restriction in an area of the Trentino-Alto Adige region, as reported in document FCIF 97-16 of 29 August 1997 from the 31st FW. In this regard, the fighter wing had no confirmation procedure (with signature for acceptance) designed to ensure that the squadron had effectively acquired all the FCIF documents issued.

The FCIF 97-16 document had been in the binder for unclassified documents and papers (for special instructions – SPINS) of Operation DG since 15 December 1997 (two months before the accident), for which the squadron had not adopted a « read and initial » procedure analogous to that in place for the classified documents binder.

As regards the minimum altitude to be observed during low-level flights, it was shown that:

according to Marine Corps order 3500. 14 F (T & R Manual, Volume I), paragraph 5000.3, training for navigation (for non-Low Altitude Tactics, no LAT) was limited to 1000 feet for aircraft not equipped with a « Heads Up Display » device (HUD), as is the case with the EA-6B;

the 1000-foot limit was set by an Italian regulation for mountain flights during the winter (1 November-30 April) or other periods in case of the presence of snow, as recalled in the orientation briefing on the arrival of the VMAQ-2 Squadron, and as recorded in USAF document MC11-F16, regarding local operational procedures in Aviano.

It was furthermore specified that the CIB found three copies of a navigation chart in the cockpit of the aircraft involved in the incident indicating an altitude of 2000 feet in correspondence with accident site. This prompted the CIB to deduce that these charts had been brought on board by the aircrew before the flight.

In addition, knee charts were also discovered, with indications of the 1000-foot limit during the winter, as recalled earlier, and a navigation chart analogous to that indicated above, related to route AV047 BD, indicating the altitude of 2000 feet AGL along the course of the accident.

Opinions.

In view of the elements obtained and after identifying and distinguishing the responsibilities of the aircrew (the pilot was responsible for the safe planning and execution of the flight; the ECMO1 for planning, instructions on the low-altitude route and flight safety; all the members of the aircrew for assisting the pilot in identifying any potential risks), the CIB expressed the opinion that:

the aircrew had all the pertinent information to fly route AV047 BD in safety, with the exception of the Italian low altitude map (scale 1:500.000);

all documents indicating that the minimum altitude for the flight was 2000 feet AGL were available to the aircrew in the squadron area;

the members of the aircrew would have considered 2000 feet AGL as a restriction if they had planned their own route themselves instead of utilizing the charts pre-printed and prepared by a previous squadron;

there had been an error in supervision in the squadron in not having instituted a formal « read and initial » procedure for FCIFs and other unclassified information, which would have led to the inclusion of the 2000-foot altitude restriction in the Trentino-Alto Adige Region. Omitting these details in the squadron training program was a negligent act but it did not cause the accident. Even if the minimum authorized altitude was 2000 feet AGL along the accident route, the aircraft would have still avoided all the obstacles along the route by flying at the planned altitude of 1000 feet AGL.

Considerations.

This Committee agrees with the observations as regards to the availability of information on the 2000-foot restriction, the lack of supervision and the omission of specific instructions for the planning

of low-level training flights. We also substantially agree with the consideration that, regardless of the 2000-foot limit all along the route, and more precisely along the segment of the accident, the aircraft would not have encountered any obstacle if it had kept to 1000 feet AGL, as planned and recalled during the pre-flight briefing. Furthermore, it did not emerge in the CIB's investigation that document SOP ADD 1 (1 January 1998 edition), which was also sent to the 31st FW, specified that low-level flights were required to use the tactical air navigation chart scale 1:500,000, series AM CNA, published by the CIGA, as their reference chart in flight planning. The CIGA had sent several copies of this chart to the 31st FW (to replace the ICAO-CAI chart, in its most current version).

In summary, it again seems that the CIB neglected to investigate more deeply into those aspects regarding the professional attitude of the squadron toward low-level flights in general.

In this regard, the observation that the members of the aircrew would have considered the indication of « 2000 feet », indicated in a pre-printed chart, as a restriction to be respected only if they had prepared the chart themselves instead of using one prepared by others appears surprising and simplistic.

This consideration, which appears to be prompted by a desire to attenuate the responsibility of the aircrew and the units involved with the flight, actually seems to aggravate that responsibility. In fact, in view of the considerations and doubts it has engendered as regards functionality and organizational efficiency and adequacy as well as individual professionalism, it has instead confirmed the previously-expressed concerns about possible deficiencies, including control and skill aspects, of training arrangements. It also reveals a lack of care and precision, attributes that should instead be an indispensable element of the preliminary study and preparation phase of any flight. In fact, such requirements must be observed in an even more stringent and exact manner considering the type of low-level flight, the level of training of the aircrew in low-level activities, the terrain to be flown over and the aircrew's familiarity with that section of Italian territory.

Section IV. Mishap aircraft.

Findings of fact.

The mishap aircraft (serial no. 163045) had flown more than the other two aircraft in the squadron during the deployment period: 28.7 hours in 14 missions in January 1998 and 5.8 hours in two missions in February 1998.

The aircraft had also been used in the morning of 3 February 1998 for a DG-related mission over Bosnia, with no significant problems. On that occasion, the pilot (Captain Thayer) reported only one anomaly involving the G-force measurement instrument in the appropriate Maintenance Activity Form (MAF), stating that the problem had been resolved after the flight with the replacement of the instrument with

a functioning device, as confirmed after testing and inspection. At the end of post-flight operations, the radio system, instruments for tactical navigation, Identification Friend or Foe (IFF), and intercommunications, the radar altimeter and the inertial navigation system were all reported as functioning properly (in fact, the latter was judged as functioning « magnificently »).

Before performing mission EASY 01, the aircraft, along with all its systems and equipment, displayed no anomalies or malfunctions and was operating as it should. It therefore fit and safe for the flight. In particular, among the other systems and on-board instrumentation, the identification transponder, the radar altimeter and mission recorder were confirmed as functioning correctly.

Since the aircraft had been seized for examination by the Public Prosecutor's Office of Trento after the accident, the CIB initially had limited access to information on the conditions of the aircraft. External inspection showed significant damage to the right wing, the upper part of the vertical stabilizer and the pod of the jamming device, located under the right wing.

Access to information on the condition of the aircraft (regarding the functioning and state of the various systems and instruments) was later given subject to coordination with Italian military and civilian representatives and the USAF and subsequent to authorization by the Italian court.

The latter also allowed the CIB to pursue two particular additional questions: first, the extraction of data from the mission flight recorder; and second, the verification of the reliability of the radar altimeter. It was acknowledged that both pieces of equipment had been kept in safe custody.

These issues merited great attention for two reasons. First, it had not initially been possible to find and extract the navigational data from the recorder (on the EA-6B aircraft, this was not the « black box » typical of commercial airlines but a model designed and utilized for recording specific, classified data, and also capable of supplying unclassified navigational data). Second, the four members of the aircrew, in their sworn statements, claimed not to have heard the alarm on the radar altimeter (with an operational range of between zero and 5000 feet AGL) sound a low altitude warning before the impact. Furthermore, on 8 February 1998, five days after the accident, Captain Thayer stated that during his flight on the morning of 3 February, the readings on the instrument had temporarily fluctuated around the altitude of 25,000 feet (an unusual occurrence). He further added that he subsequently deactivated the radar altimeter in descent then reactivated it and then noticed that the readings had returned to normal, specifying that he did not report this anomaly in writing since he verified that the system functioned normally at 5000 feet AGL and below this altitude.

As regards the mission recorder, the assistance of software experts, called in by the United States, was used in extracting recorded navigational data, such as the position of the aircraft by way of projection of latitude and longitude at ground-level, as well as other

data such as: heading, airspeed and altitude (in relation to sea level). As regards the radar altimeter, taking into account the fact that a re-examination of previous flights had revealed another anomaly in the instrument reading on 22 January 1998 at an altitude of 26,000 feet, and that it had been duly noted and reported (and later resolved after repairs and successful testing), it was decided to carry out further checks and repeated tests, which indicated that the system was functioning perfectly normally.

Opinions.

From the series of tests and inspections performed and the examination of the relevant documentation, the CIB expressed the conviction that before the flight that led to the mishap, the periodic maintenance undergone by the aircraft had been performed in conformity with standard regulations in force, that the anomalies in the radar altimeter, encountered at high altitudes in preceding flights, had had no affect on the functioning and operation of the system in the altitude range of between zero and five thousand feet AGL and that the aircraft was safe from a technical, mechanical and functional standpoint and ready in operational terms for the planned mission. During the flight, all aircraft systems and instrumentation had functioned properly, including the radar altimeter and the mission recorder (the latter up till the moment of impact).

Considerations.

Once it had been verified beyond any doubt that that aircraft, both as a whole and its individual systems and instruments, was working properly from a technical, functional and operational point of view, it is curious that the CIB did not formulate any comment regarding:

the reliability of the statement given by Captain Thayer (several days after the accident) regarding the radar altimeter anomaly during his flight on the morning of 3 February, which, although it was a momentary phenomenon and considered to have been overcome, was not reported on the MAF (as was required for flight safety purposes, among other things) for checks or repairs. Note that the MAF was promptly filled out by the same pilot in similar circumstances to report the malfunction of the G-meter even though the latter could be considered of minor import compared with that of the radar altimeter;

the presumed motives for the absence of a low-level warning signal from the radar altimeter before accident happened, which likely included the inappropriate regulation of the instrument in setting the reference altitude (in this case to 800 feet, as mentioned in the statements, or the required altitude of 1000 feet minus 20%).

We feel that Captain Thayer's version of the supposed radar altimeter anomaly is not very likely, so much so as to create doubts about the credibility and honesty of the officer (later accused of perjury by the Italian magistrate). His statement appeared to be a weak, and unsuccessful, attempt to blame a presumed malfunctioning of the radar altimeter for a mistaken indication of altitude in the area of the accident. This overlooked the fact that such an anomaly would have required aborting the low-level mission and taking the immediate corrective measures of gaining altitude and returning to base.

In our view, a plausible theory regarding the radar altimeter is that the absence of the low-level warning alarm (below the reference altitude of 800 feet) was the result of a conscious act by the pilot, Capt. Ashby, who could have set instrument controls to a markedly lower altitude or in such a way as to deactivate the signal. He would have most likely acted in this manner in order to avoid hearing the signal continuously along the entire section flown at low level, below the allowed limits.

Section V. Aircrew training/proficiency.

Findings of fact.

The mission planned for 3 February 1998, EASY 01, envisaged a low-level flight (along route AV047 BD), more precisely coded VNAV-215, defined by the T&R Manual as a basic type flight (near advanced), to be performed during daytime with a single aircraft for training in visual navigation at low altitude. The aircrew was requested to utilize a degraded navigation system (9) and follow a training method that involved reaching a set point, assigned as an objective, in a preset time (TOT, Time on Target), in addition to practicing evasive tactics by using terrain masking and maneuvering the aircraft with certain lateral limits with respect to the central reference line of a route assigned for low-level training.

Captain Ashby had never flown at low level in Italy during his six months at Aviano; his last low-level flight was in fact on 3 July 1997. In conformity with the specific instructional system in effect, (ATRIMS, Air Training and Readiness Information Management System), Captain Ashby was qualified for VNAV-215 training because on 28 January 1998 he had performed an electronic warfare mission, coded as 485, that, according to T&R Manual, Volume II, qualified him as trained for a VNAV-215 mission. Captain Schweitzer, as ECMO1, had performed his first low-level flight during his deployment in Italy in October 1997, with two flights in the previous six months, although he had not flown route AV047 BD, and had a valid VNAV-215 qualification.

Captain Raney (ECMO2) had not flown at low altitudes in Italy during his deployment period, while Captain Seagraves (ECMO3), who was, as previously mentioned, added subsequently to the plan approved

(9) This term indicates the use of the navigation system without certain instruments.

by the VMAQ-2 Commanding Officer, had flown at low altitude in January 1998, before his arrival in Aviano, but not done so in Italy. The VNAV-215 qualification was not required for the ECMO2 and ECMO3.

Opinions.

On the basis of its inquiries, the CIB felt that:

all the members of the aircrew were sufficiently qualified and up-dated to carry out mission EASY 01 on 3 February, planned in conformity with NATOPS, and that said mission corresponded to a VNAV-215 flight, i.e. a basic (near advanced) low-level training flight, if flown in conformity with the minimum altitude restriction of 1000 feet as per the T&R Manual – Volume I; the pilot (Capt. Ashby) and navigator (Capt. Schweitzer) were qualified for this specific type of flight (VNAV-215). The navigator was considered trained and current (although he had only flown one low-level flight as ECMO1 in the previous six months), but the pilot was lacking in training. His status as a pilot trained to perform a low-level, single aircraft flight, code VNAV-215, was the result of the automatic upgrading associated with his performance of a code 485 mission, although this was not carried out at low level. Therefore, Captain Ashby was judged as properly trained and current even though his last low-level flight had in fact taken place some seven months earlier.

Considerations.

The code VNAV-215 flight, being a « basic » contact, or visual navigation, flight (to be performed at 1000 feet AGL), i.e. of an elementary type, was considered an activity to be performed at the beginning of a training course aimed at achieving or recovering a higher level of operational ability. This type of mission was therefore well-suited to regaining familiarity with low-level flights for a aircrew with very little training behind them, especially in the previous six-month period. In such cases, the execution of the flight was meant to be of a conservative nature, even if it did not fundamentally entail any particular difficulties. Furthermore, if necessary such a flight could also be conducted using a degraded navigation system (i.e., without the aid of certain instruments, which would be considered non-functional for training purposes) that would have heightened the already notable aspects of what is essentially a contact flight. For example, certain sections of the route could have been flown without the continuous use of the inertial navigation system, without however jeopardizing flight safety, which would be fully guaranteed by strictly observing the pre-established altitude limits. Such observance would all the more careful and precise the less training the aircrew had at low altitudes and the lower their familiarity of the environment to be flown over.

Essentially, the qualifications of the aircrew of the EASY 01 mission were in fact sufficient for this type of flight. However, in

consideration of their level of training in low-level navigation, which seemed limited and irregular, not to mention the particular features the terrain along the route, very special care should have been taken from the preparatory phase in setting the parameters, with the necessary precision, to be respected during the flight, first and foremost altitude restrictions.

Section VI. Low-level flight rules and the dissemination of those rules.

Findings of fact.

The CIB's report noted that the squadron, when deployed, had the responsibility to acquire all documents regarding flight safety for low-level activities. As regards Italian procedures and regulations applicable to low-level flights contained in the Pilot Aid Handbook of the 31st FW, it was shown that:

flights under 1000 feet were not authorized in the mountains during the winter period (November-April) or in the presence of snow;

populated centers indicated on the tactical pilotage chart (TPC) were to be avoided at a distance of one nautical mile if flying at less than 1500 feet AGL;

a margin of five nautical miles was allowed as lateral deviation with respect to the centerline of the route;

maximum velocity allowed under 2000 feet AGL was 450 knots;

an additional restriction of a minimum altitude of 2000 feet AGL was in effect for all flights in the Trentino-Alto Adige region, issued by the Italian authorities as a measure to mitigate the impact of such flights on the public and the environment.

It was further stated that the additional restriction of 2000 feet cited above was included in document FCIF 97-16 of the 31st FW, dated 29 August 1997, contained in the aircrew information binders regarding subjects and information that the fighter wing distributed to its own units on the base and all units deployed there.

In particular, it mentioned the variation in altitude that this restriction would involve for route AV047, contained in the Italian document SOP ADD 8, issued 15 July 1991 and available at the Operations Office of the 31st FW. More specifically, before the restriction, route AV047, divided into 6 legs, had minimum altitude limits of 500 feet for the first two legs and 2000 feet for the remainder; after the restriction, the limit was now 2000 feet in all of the second leg and most of the first.

After arriving in Aviano on 22 August 1997, the aircrews of the VMAQ-2 Squadron underwent an initial instructional briefing on 25 August 1997, held by the 31st FW. A copy of the Pilot Aid Handbook was also distributed on that occasion. However, neither at that briefing nor subsequently was there any discussion of low-level flights or FCIF

97-16, which did not exist at that time. Regarding their distribution, FCIF documents were normally hand delivered by the 31st FW to its squadrons (i.e., the 510th and 555th squadrons), while deployed squadrons, such as VMAQ-2, received them through the DG operations center, which would subsequently forward them to the unit mail box. The 31st FW did not require any receipt for reception or distribution of FCIF documents. On its part, VMAQ-2 had not established a « read and initial » procedure for unclassified information analogous to that adopted for classified DG information.

In consideration of these methods of disseminating FCIF documents, the distribution to the VMAQ-2 Squadron of FCIF 97-16 on 29 August 1997 seemed neither linear, timely nor clearly verified. Based on the testimony gathered, that document (containing the restriction of 2000 feet) remained at the Safety Department, in the office of the Director of Safety and Standardization, Maj. Caramanian, in a binder of other documents regarding Operation DG and the EA-6B aircraft, for the period between August and November 1997. At an All Officers Meeting (AOM) in early December 1997, a department officer, Captain Roys, communicated the existence of new information in the unclassified DG documents binder, which were available at the office of the ODO (Captain Recce) for updating. However, almost all aircrew members (15 out of 18) stated that they were unaware of the restriction of 2000 feet contained in FCIF 97-16, while one mentioned he had heard about it and two elected not to be questioned. The aircrew of the EASY 01 mission confirmed that at the pre-flight briefing there had been no discussion with the ODO present (Captain Recce) of altitude restrictions and that, in particular, the minimum altitude dealt with for that flight was 1000 feet. Neither Captain Recce, nor Captain Schweitzer, nor the others were aware of any different limit. Since three copies of the navigation charts were found on board the aircraft after the accident indicating an altitude of 2000 feet in the segment involved in the accident, along with another three copies of charts (meant to be attached to knee-boards) with indications of the altitude limit of 1000 feet in the mountains during the winter, the CIB established that these charts were brought on board and placed in the aircrew's document holder before the flight. As regards the airspeed of the flight, in contrast to the usual practice when flying an EA-6B visually at low level at a airspeed of between 420 and 450 knots (the maximum limit allowed in Italy below 2000 feet according to the 31st FW's Pilot Aid Handbook), data recovered from the flight recorder indicated that EASY 01 maintained a airspeed of between 451 and 555 knots for most of the flight.

As regards the trajectory of the route, the flight data recorder indicated that the aircraft generally kept within the lateral restriction of around five nautical miles with respect to the centerline. Nevertheless, in certain sections, it went beyond this margin, at one point flying beyond the lateral limit for over 2.5 minutes, while proceeding north in a valley in the western section of Trentino.

As for flight over inhabited areas and towns, neither data from the recorder nor eyewitness testimony were available to indicate whether or

not the aircraft breached the limit of one nautical mile when flying at less than 1500 feet AGL in the vicinity of the towns marked on the TPC.

There were, however, numerous reports of a fast, low flight of a military jet aircraft over or around villages not indicated on the TPC along the route at the moment the EASY 01 aircraft was found at a low altitude during the flight that led to the accident.

Opinions.

The CIB stated that, in its view:

fifteen of the 18 members of the aircrews of the VMAQ-2 Squadron were not aware of document FCIF 97-16 and the restriction of 2000 feet AGL along the route of the accident before it occurred;

the members of the aircrew involved in the mishap could have recognized the altitude limit of 2000 feet AGL as a « restriction » if they themselves had planned their own route instead of using pre-printed charts prepared by a previous squadron;

the aircraft aircrew should have known of the 2000-foot restriction along the leg in which the accident occurred. Nevertheless, this carelessness in performing a training exercise without furnishing details to the aircrews did not cause the accident;

it was a supervision error on the part of the squadron not to institute a formal « read and initial » procedure for FCIFs and other unclassified information, including the restriction of 2000 feet in the area of the accident, although this was not the cause of the accident itself.

Furthermore, the CIB, arguing that:

each deployed squadron should have had a set program with all the pertinent information in order to be able to operate safely in the deployment base and environs;

the initial orientation program at Aviano for the deployed units should have indicated the FCIF program and the procedures for local flights in much greater detail;

expressed the opinion that:

the aircrew of the aircraft involved in the mishap exceeded the airspeed limit of 450 knots (established by the 31st FW) for most of the low-level flight and that it had flown for around 2.5 minutes outside the five nautical mile lateral limit of the low-level route in the valley in north-western Trentino, but this deviation had no relevance to the accident;

the same aircrew, while avoiding population centers indicated in the TPC by a distance of one nautical mile when flying at less than 1500 feet AGL, could not have always avoided flying within one nautical mile while below 1500 feet over towns not indicated on the TPC.

Considerations.

In general, we largely concur with the opinions and observations of the CIB . In particular, there is full agreement with regard to the crew's obvious violations of airspeed restrictions, minimum altitude limits and off-centerline deviation constraints. As regards possible flights over inhabited areas, it is difficult to understand how the CIB arrived at the opinion that that aircrew had avoided flying over the cities and populated centers marked on the TPC, and thus not violated the limits. It seems plausible to suppose that the CIB might have been convinced by the aircrew's version, judged credible under the circumstances, rather than formulating a completely autonomous opinion. We therefore feel that the CIB's opinion is unfounded in this case, as it cannot be ruled out that flyovers in violation of regulations did in fact take place, as occurred in other sections of the route. We do agree with the necessity of ensuring an orientation program for deployed aircrews that provides accurate, complete and detailed information on the rules and regulations and other aspects concerning flight activities in Italy, thus remedying the shortcomings brought to light. Nevertheless, from a reading of the findings of fact and considered opinions, one receives the impression that the CIB sought to minimize the very specific responsibility of the aircrew and the squadron, to shift responsibility onto the USAF 31st FW for its failure to disseminate information on operating procedures in Italy and to separate the moment of the accident from the elements that could be considered precursors to the accident itself.

Furthermore, it is felt that the CIB did not place the proper emphasis on the specific questions regarding FCIF 97-16, which contained the 2000-foot restriction. This does not so much regard the procedures for distributing FCIF information, which was already deficient in itself and, in any case, the subject of a broader investigation. The CIB did identify an error in supervision in the VMAQ-2 Squadron, limiting it essentially to the lack of a « read and initial » procedure. Nevertheless, the CIB failed to underscore immediately the very serious matter of the great carelessness and lack of concern with which the restriction was treated. In view of the issue's importance, it would have deserved much greater and clearer attention. In fact, this restriction had gone unnoticed because of general indifference and lack of interest, to the extent that nearly all aircrew members in the VMAQ-2 squadron were unaware of its existence. In short, the set of facts uncovered should have prompted the CIB to infer that there had been very careless and unprofessional behavior in VMAQ-2.

Section VII. Mishap flight from take-off to striking cable

The reconstruction of the flight from take-off to the accident was based on the statements of the aircrew and witnesses along with data taken from the AWACS and the mission flight recorder. All these elements were analyzed and approved by the CIB.

Findings of fact.

Data from the AWACS aircraft, provided by the NATO AWACS component in Germany, included information on the aircraft's position and altitude along the route when it was not masked by the terrain. The mission recorder installed on the EA-6B (not the black-box type used on commercial airlines), though based on now-obsolete technology, recorded both special classified mission data as well as unclassified « navigational » data, such as time, heading, position (in latitude and longitude), speed and altitude (above sea level). Position with respect to the ground, obtained by processing data from the inertial navigation system, which has an inherent margin of error of up to three nautical miles per flight hour, was determined with an average approximation of one to two nautical miles.

The mission recorder does not operate on a continuous basis, recording data not from every instant of the flight but rather at fairly regular intervals, generally every ten seconds or so during the maneuver phases; 128 data points were taken from the EASY 01 flight. Once the data was sequenced and coordinated, it was possible to reconstruct the trajectory of the flight itself. However, the CIB decided to select only 33 data points from among those recorded, considering them adequately representative of the flight from take-off to the accident, and of time and altitude albeit with certain tolerances in terms of precision. For example, the fluctuation in values for altitude AGL reflected errors in the inertial guidance system. As regards altitude and the related fluctuations, the CIB drew up a chart (on page 35 of the original text) of its own estimates made in reconstructing the flight based on data from the mission recorder. There was also a degree of imprecision in ascertaining times, with differences as great as two minutes. This was due to the difference in the original sources used to generate the various estimates (AWACS or mission recorder). Once the various elements were properly checked and their reliability verified, including the correlation with the surface reference points below the flight path, the differences were considered immaterial. In short, comparing the AWACS data with those of the flight recorder enabled the CIB to reconstruct the flight path of the aircraft (albeit with a certain degree of approximation).

The following facts emerged regarding the flight:

after the take-off from Aviano (at 14:35 hours), the aircraft was set on planned course AV047, flying the first leg in a regular manner;

in the second leg, according to the statements of the pilot and navigator, at an altitude of around 2000 feet AGL, the radar altimeter was blocked for a brief period and, after a climb, seemed to have resumed functioning normally. In this segment, characterized by mountainous terrain and long valleys, numerous witnesses observed a military aircraft fly at a low altitude and high speed, as confirmed by the recorded data, which showed that EASY 01 was within the lateral limits from the route centerline;

in the third leg, especially the first part, which consisted of mountains with no valleys, the flight recorder data were considered inconclusive; in the final part the segment, prevalently over flat and populated areas, data from the AWACS and flight recorder indicate that the aircraft mainly flew above 2000 feet; in the fourth leg the AWACS and flight recorder data also showed the aircraft at above 2000 feet;

in the sixth leg (that of the accident), as stated by the navigator and confirmed by the mission recorder, the aircraft followed the course of the valley in a generally north-eastern direction, avoiding the city of Trento and the airport of Mattarello. An eyewitness, near the village of Ciago (situated within the lateral limits of the route, a fact confirmed by the recorder), noticed a military aircraft fly from south to north at a very low altitude (approximately 100 meters). This occurred about four minutes before the accident;

at about one minute before the accident, according to the testimony of the navigator, the pilot had to maneuver to take the aircraft from one valley to the adjacent one, flying over a ridge that, based on the recorded data, was situated near Dosso del Colle. The CIB maintained that the preceding valley and the Dosso del Colle area were both located outside the permitted lateral distance from the centerline;

as regards weather conditions, while the pilot and navigator stated that, with the sun behind them with respect to the route of the aircraft, there was haze in that area and visibility was (according to the pilot) within the required limits (five miles), the real conditions (confirmed by official bulletins) were excellent, with visibility above 10 kilometers;

according to eyewitness testimony, about forty-five seconds before the accident a military aircraft was seen flying fast and low. In particular, one witness noticed the aircraft turn to the right, near Molina di Fiemme, which was within the lateral limits of the planned route. With reference to the moments before the impact, the pilot stated he was not aware of the existence of any ski area nor the presence of any cable cars along the route. He stated that, after seeing the cable across the flight path, his immediate reaction was to push down the nose of the plane in an attempt to survive and, at the same time, avoid the cable;

the ECMO1 stated that he was not aware of the ski area in Cermis and was busy looking at the chart, when, looking up after having verified that the route was correct for Monte Marmolada (within sight), he became aware of the cable. Shocked, he saw the pilot violently and decisively push the aircraft down. He then felt a dull thud, although it seemed to him that the cable had been avoided. The statements of the other aircrew members (ECMO2 and ECMO3), albeit with different descriptions and perceptions, confirmed the type of maneuver attempted by the pilot to avoid an obstacle. ECMO2 stated he heard a thud but did not see what the aircraft had hit. Both ECMO2 and ECMO3 stated that they had not seen any cable or cable car;

all aircrew members stated they heard no warning signal from the radar altimeter. In this regard, Lt. Col. Muegge stated that after

the accident the pilot said that he had set the low altitude warning indicator at 800 feet AGL, i.e. 20% below the reference level (1000 feet), whereas the SOP called for an adjustment of 10%. The NATOPS manual for the EA-6B required that the acoustic warning system for the low altitude limit be automatically activated when the aircraft went below the minimum height set on the indicator;

the cables of the Cermis cable car were hit by the aircraft at approximately 15:13 hours local time, at a height of no more than 113 meters (370 feet). The cables severed in the impact were the lowest in the cable car belt; the lower cable was about 111 meters (364 feet) AGL;

the signs of four impacts at 45 degrees were found on the aircraft in the post-flight inspection; the maximum G-force recorded during the flight and indicated on the cockpit G-meter was -2.3;

Lt. Col. Muegge stated that after the accident the pilot had told him he knew he had hit the cable.

Opinions.

The CIB had required confirmation by two of the three available sources of data (AWACS, mission recorder and witnesses) in determining the altitude of the aircraft, indicating that if only one source were available, the determination would be inconclusive. It was therefore of the opinion that:

the aircrew should have halted low-level flight if the radar altimeter had been malfunctioning;

the determination of altitude for EASY 01 was inconclusive in the first leg, the first part of the third leg and the fifth leg of the route;

the aircraft generally flew above 1000 feet AGL in the second part of the third leg and the fourth leg;

the aircraft flew well under 1000 feet for part of the second leg and in the sixth leg of the flight (the accident area);

the aircraft exceeded the speed limit of 450 knots along low-level route AV047;

the aircraft hit the cable of the Cermis cable car at an altitude of between 111 and 113 meters AGL; it hit two of the three cables in a downward movement (with the nose in a downward attitude) and flew under the three cables in an upward movement; the smallest of the cables that were hit struck the housing of the jamming system, the inner edge of the right wing and the vertical stabilizer, while the large cable hit the external edge of the wing;

on impact with the cables, the inclination of the aircraft (roll attitude) was 45 degrees with the left wing lowered and the aircraft was positioned to hit with the nose down;

the negative G-force reading (-2.3) was caused by the downward maneuver of the aircraft, creating a zero gravity condition;

the differences in times between the data from the AWACS and mission recorder were considered insignificant.

Considerations.

In view of the facts presented and the opinions of the CIB, most of which are justified, we offer the following comments. The CIB's requirement that at least two of the three sources of data (AWACS, mission recorder and witnesses) must agree to verify the altitude of the aircraft appears restrictive and debatable, as noted in the section on the preliminary report. In this case, given the absence of any doubt concerning the identification of the EASY 01 aircraft, the absence of any other traffic in the area of route AV047 and the availability of other plausible related elements, data from one source alone could have been accepted as conclusive if it could be considered to be highly reliable and consistent with other proven data. In addition, it is not clear why 33 data points of the recorder were chosen (from among the 128 available), why they were considered by the CIB to be sufficient to adequately represent the flight and what criteria were adopted in selecting them. In the absence of other data, at least some of the omitted data points might have contributed to understanding the behavior of the aircraft precisely in those segments they covered . In addition, they could have been of help in evaluating possible theories on the dynamics of the flight in the leg near the cable car. Nor can it be ruled out that the flight did not comply with the planned parameters for the exercise in such segments that were not otherwise verified.

We concur with the conclusions of the technical consultants of the Public Prosecutor of Trento, who found that in addition to revealing the values of key flight parameters, the data obtained from the recorder allowed the reconstruction (in correlation with the AWACS data) of the general mission trajectory but not the precise route followed immediately preceding impact. This prevented any analysis of the aircraft's maneuvers in that segment. Some doubts remain about the precision of the real times registered by the recorder in the final approach to the cable car.

Again concurring with the conclusions of the technical consultants, most of the EASY 01 flight clearly did not conform with the parameters indicated in the SOP ADD-8 document. The reconstruction of the EASY 01 flight shows that while the aircraft passed over the required points or in their immediate vicinity, it deviated significantly from the linear (or ideal) course in intermediate segments, far exceeding the five nautical mile limit of deviation from the centerline. This was especially true in the second leg (Brunico-Ponte di Legno) and sixth leg (from Riva del Garda-Monte Marmolada, from where it then deviated toward the point of the accident).

As noted by the CIB, the differences in airspeed and altitude values were significant. In particular, before the impact altitude varied

between 900 and 1033 feet, while airspeed was on the order of 550 knots. (This speed was not justifiable even for a brief segment or for training purposes, since no precise requirement to respect a precise time to target had been planned for this mission, as mentioned earlier.) The CIB did not express any opinion on the fact that the airspeed was decidedly higher than that allowed and normally used in low-level training with the EA-6B aircraft.

Without intending to rule out other theories *a priori*, the reconstruction of the final Lago di Stramentizzo-Cermis segment of the flight by the Trento prosecutor seems generally valid. In this reconstruction, several seconds before the impact (11 seconds according to recorded data but this is not absolutely certain) the aircraft, which was already very low, descended even further to the height of the gondola cables. The CIB expressed no opinion on this reconstruction. In considering the reasoning behind such flight behavior, one theory is that the pilot might have been attracted by the idea of testing his own skills by following the contours of the terrain and maneuvering as demanded by the characteristics of the valley floor and any obstacles.

Once again, only conjectures are possible with regard to the final descent in very little space and the dynamics of the impact. For example, the pilot, noting the spaciousness of the valley in front of him, might have believed he could fly lower with no risk, and the attitude of the aircraft banking to the left, with a roll attitude of about 45° and the nose pointed down, reflected his intention to follow the contours of the valley and, therefore, was purely circumstantial. Under this hypothesis, the impact could also be considered a chance incident, in the sense that the pilot did not notice the realize the imminent danger.

However, it could also be imagined that the pilot did recognize an obstacle ahead, the cable car for example, and at the last moment veered to avoid it, bunting the nose downward. In this hypothetical case, the pilot probably decided to nose the aircraft down because his estimate of the cable position differed from its actual position, and he was unable to identify it correctly in time. In theory, we cannot rule out the hypothesis that the pilot, being aware of the cable or its existence, intentionally attempted to go below the cable and then, perhaps having realized he was not going to succeed, maneuvered by instinct, violently nosing the aircraft down and then immediately pulling back up. The negative G-force value (-2.3) would be compatible with such a rapid maneuver, although it cannot be ruled out that the specific negative G level was due to an analogous maneuver at another moment of the flight.

Section VIII. Character of the execution of the mishap flight.

Findings of fact.

The CIB reconstructed the mishap flight using data from the AWACS, mission recorder and eyewitness statements, as well as information taken from the prepared statements of the aircrew. Low-level route AV047, primarily covering the mountainous region of

Trentino-Alto Adige, followed a course characterized by three types of terrain: high mountains with long valleys, high mountains with no valleys, populated plains and Lake Garda.

In the first three legs, the data from the recorder was generally deemed inconclusive because of the absence of confirming data from the AWACS and witnesses. However, there were numerous witnesses at several points along the second leg, who noticed a military aircraft flying very low and fast while data from the AWACS and recorder indicated the EASY 01 aircraft at above 1000 feet with the exception of some data points at a lower altitude in the final part of the third leg. Based on data from the same sources, the aircraft remained above 1000 feet in the fourth segment (a plain with various population centers). Data from the recorder, with no supporting evidence from the AWACS or witnesses, was judged inconclusive for the fifth leg over Lake Garda.

In the sixth leg, that of the accident, witnesses in several areas saw a military aircraft fly very low and very fast (near Molina di Fiemme, around 1.5 km from Cavalese, swerving to the right at around 15:00 hours; then near Ciago, from south to north, at an altitude of around 100 meters, at approximately 15:08). Data from the flight recorder indicated the position of EASY 01 at the same points and about the same times The recorder showed five points where the aircraft was at an altitude of between 689 and 885 feet AGL. Numerous other witnesses confirmed the low, fast flight of a military jet in the same area where no other military aircraft had been recorded. Finally, the flight recorder indicated the airspeed of EASY 01 at between 451 and 555 knots for most of the period that if flew below 2000 feet.

Opinions.

The CIB concluded that:

the aircraft on the EASY 01 mission was the one observed by witnesses along the AV047 route;

the aircrew flew well below 1000 feet AGL, violating their own altitude restriction, discussed in the briefing, while maneuvering the aircraft in an aggressive manner when the terrain allowed it in the second and sixth legs, and exceeding the maximum allowed airspeed of 450 knots below 2000 feet for most of route;

the aircrew kept the aircraft above the minimum altitude of 1000 feet in the segments of the course over flat, populated areas;

information was not sufficient to determine the altitude of the aircraft over Lake Garda and in the high mountain areas without valleys.

Considerations.

The EASY 01 mission was performed in an excessively aggressive manner, violating not only Italian flight regulations governing altitude

and airspeed limits (in addition to exceeding the allowed lateral deviations) but also US regulations governing altitude restrictions.

Flying well below 1000 feet and well above 450 knots (at times as fast as 550 knots) for a good part of the course, and this for a pilot with little recent practice, was decidedly unprofessional conduct The prolonged violation of flight restrictions therefore cannot be viewed here as human error but rather as a lack of discipline.

Section IX. Mishap flight from cable to landing.

Findings of fact.

After the impact with the cable, the aircraft continued its flight and returned under emergency conditions to the base at Aviano where it made an arrested landing with no problems. During the return flight, the aircrew contacted the traffic control center in Padua, declared an emergency and executed the various checks required under emergency procedures In this leg, as soon as the aircraft gained altitude, the AWACS again began to collect data. In conformity with the NATOPS manual of the EA-6B, the acoustic warning signal of the radar altimeter was set at 5000 feet.

The control tower in Aviano had been advised by approach control at 15:15 hours local time of the aircraft emergency declared by EASY 01. After landing, a video camera was found in the front section of the cockpit (with nothing recorded) and a 35 mm camera in the rear section of the cockpit with no photographs seen after the film was developed.

In this regard, it was noted that it was not unusual for an aircrew to fly with photographic equipment.

Opinions.

The CIB concluded that:

the aircrew correctly executed the various procedures called for in the return, approach and landing phases, performing the checks established by standard procedures, including setting the warning indicator on the radar altimeter at 5000 feet;

the tape from the video camera and the developed 35 mm film, recovered from the cockpit, have no relation to this investigation.

Considerations.

No comments have been formulated regarding the return phase of the mission. Unlike the CIB, we are of the opinion that the recovery of the video camera and the 35 mm film should have been subject to assessment as part of the investigation. In general, there are no safety

considerations that might counsel the prohibition or discouragement of the on-board presence and use of video or photographic equipment for filming in conditions of absolute safety and the aircraft in a stabilized attitude. In effect, the use of these devices was tolerated but it can not be excluded that it could present some risk.

Given the gravity of the incident, further investigation was warranted as to whether, on that specific flight (as perhaps in similar low-level flights along that route), the presence of the video equipment could have some way affected the behavior of the aircrew (i.e., lack of attention or attempts at reckless maneuvers) in conducting the flight from the take-off phase, to the extent of modifying (in an unauthorized manner) the planned performance restrictions for the flight.

Section X. Supervisory factors.

Findings of fact.

This section, aimed at identifying the supervisory factors associated with the mishap, is divided into four parts:

Dissemination of DG rules and non-DG training rules;

Aircrew training;

Flight discipline;

Chain of command.

a) Dissemination of DG rules and non-DG training rules.

The published altitude restriction in the area of the accident (the Trentino-Alto Adige Region) was 2000 feet AGL, reported in FCIF 97-16 of the 31st FW as a local flight restriction. As stated by Capt. Recce (ODO) and later confirmed by Capt. Schweitzer (ECMO1), the pre-flight briefing had fully covered the route of the mishap flight, including indication of the minimum altitude of 1000 feet. Route AV047 had no obstacles higher than 600 feet AGL. The heights of the cable car cables in Cermis were approximately 111 and 113 meters (364 and 370 feet) AGL.

The squadron had a « read and initial » procedure for classified DG information but not for unclassified information.

Among the aircrews, 15 out of 18 airmen stated they knew nothing either of the 2000-foot limit in the Trentino-Alto Adige Region or of FCIF 97-16 before the accident. The exceptions were one ECMO who stated that he had heard something from an ODO (although he could not remembering who) about the restriction in November, on the occasion of his first or second low-level flight, while the other two officers said they had never heard of it.

The FCIF 97-16 was not posted in any VMAQ-2 Squadron binder of the « read and initial » type. The ECMO1 stated that the aircrew was not aware of FCIF 97-16 with the restriction of 2000 feet and that he knew nothing about the ski resort in Cermis.

b) Aircrew training.

During their six-month deployment, the squadron carried out a total of 254 missions, including 164 related to Operation DG and 69 training missions; among the latter, 11 missions were low-level, equal to 4% of total activity. An additional 12 missions had been planned by the squadron but later canceled because of bad weather (9) or aircraft unavailability (3). Training flights began in October 1997 as operational activities in support of DG had dominated the previous period. With the reduction in these tasks (DG missions were reduced from two to one per day of planned flight), there was a greater need for training, with the main objective of maintaining required skill levels in electronic warfare. At the same time, the squadron, which already had basic and advanced experience and skills in the use of electronic equipment, was starting a program to increase qualifications in instrumental skills, formation flying and basic low-level air maneuvers and navigation.

All aircrew members were qualified for the flight with the EA-6B on 3 February 1998, in accordance with NATOPS directives. The pilot and the ECMO1 were authorized under the ATRIMS system for that flight, which was planned on the basis of VNAV-215, corresponding to a basic low-level ability flight, as set out in the T&R Manual, Volume II.

c) Flight discipline.

The mishap aircrew was considered by the Commanding Officer, the Operations Officer, the Safety and Standardization Officer and the Training Officer as very professional, extremely skilled and possessing excellent coordination skills as an aircrew.

Furthermore, in the opinion of the Commanding Officer and the eleven aircrews in the squadron questioned at Aviano, the aircrew in question would not have intentionally deviated from or violated aviation regulations, or « flathatted » (a form of aggressive and/or acrobatic flight at very low level).

In questioning their roommates, no contradictions emerged in the report on the previous 72 hours of the aircrew, nor any deviations of any kind from normal habits.

In proceeding with the questioning and examining the procedures of VMAQ-2, the CIB observed a highly professional atmosphere within the squadron.

d) Chain of command.

After deployment to Aviano, the operations control authority (OPCON) of the VMAQ-2 Squadron was transferred from the Commander US Marine Corps Forces Atlantic to the Commander Striking Forces South-NATO, who had a dual role (both NATO and US). Tactical control authority (TACON) was similarly delegated to the Commander of the 5th ATAF for mission operations in support of Operation DG and related training missions. For DG-related activities, the VMAQ-2 Squadron was directed by the Combined Air Operation Center (CAOC) of the 5th ATAF on a daily basis. For training missions, the Commander Striking Forces South authorized training missions for the deployed VMAQ squadrons, within the proviso that they not interfere with DG missions. The planning of non-DG missions (training flights, functional checkflights, etc.) was carried out in accordance with T&R Manual – Volumes I and II – and approved by the squadron commanding officer Training flights by the VMAQ squadrons deployed at Aviano were under the tactical control of Striking Forces South, although the latter did not control daily training or issue any training guidelines. For aircraft maintenance and logistical support, the squadrons answered on a nearly daily basis to their original CONUS (Continental US) commanders. During their deployment at Aviano, the VMAQ squadrons were guests of the 31st FW and received guidance and/or assistance from the Wing Commander as regards local flight regulations, administrative matters and base support.

Opinions.

The CIB concluded that:

it was a supervisory error on the part of the squadron not to have established a formal « read and initial » procedure for FCIFs and other unclassified information, including the altitude restriction of 2000 feet in the Trentino-Alto Adige Region. The supervisors involved were the Commanding Officer, the Operations Officer, the Safety and Standardization Officer, and the Aviation Safety Officer;

the supervisory error consisted in the lack of attention in describing the details in the distributed information on their training program. This, however, did not cause the accident. Although the minimum authorized altitude was 2000 feet AGL, the aircraft would have avoided all obstacles along the route even if it had flown at the planned altitude of 1000 feet AGL. While the restriction of 2000 feet in FCIF 97-16 had been instituted as a noise-abatement measure in the Trentino-Alto Adige Region, the restriction of 1000 feet, communicated at the briefing and contained in the T&R Manual, Volume I, was a training limitation established as a safety measure;

within the VMAQ-2 Squadron, which was principally designated for DG missions over Bosnia, there did not seem to be any recklessness or lack of flight discipline before the accident;

the chain of command for Marine Corps flight squadrons was cumbersome and complicated, but this did not cause the accident;

the mishap was caused by the aircrew, which was flying well below the minimum altitude of 1000 feet it had been briefed to observe, and much faster than the airspeed allowed on a low-level route.

Considerations.

No comments have been formulated on the opinions of the CIB in this regard. Nevertheless, the following should be considered:

in terms of training, it was not made clear whether flight EASY 01 was planned for any specific need, for example retraining of the pilot (considering the time that had elapsed since his last low-level flight), or rather was part of the general squadron training program, even though these cases would come under activities related to US national needs;

as regards the chain of command, the CIB felt that it was complicated but did not seek to clarify the type of relationship between the Command of the VMAQ-2 squadron and the body above it in the US chain of command (COMSTRIKEFORSOUTH). One cause of concern is the fact that while the competent superior commands for the technical-logistical sector had continual daily relations with VMAQ-2, the latter did not have equally frequent contact with COMSTRIKEFORSOUTH as regards training, nor any guidance from that command. In fact, it is unclear and unconvincing that COMSTRIKEFORSOUTH, the authority above VMAQ-2, was not kept abreast of the training program that the VMAQ Commander planned to on undertake at the base in Aviano and did not know its contents. In short, it appears that the CIB intended to focus attention on the squadron without going beyond that level and therefore avoid the findings that further investigation into the directives and command and control activities of the USMC might produce;

it is not possible to share the highly positive judgment expressed by the CIB regarding the atmosphere and level of professionalism encountered during the inspection visit to VMAQ-2 after the accident if this judgment is intended to reflect exemplary conduct during the period prior to the mishap, at least as regards the examination and study (and therefore awareness and observance) of the regulations governing flight activities in Italy and, in particular, low-level training flights.

Section XI. Deaths and damage to military and civilian property.

Findings of fact.

This section presents a summary of the salient background data regarding the site of the accident, the victims and material damage.

Section XII. Conclusions.

The conclusions of the CIB presented in this section, bearing in mind that the CIB then conducted an additional investigation into several issues, which are dealt with in the Sections XIII and XIV, are reported later in a separate section entitled « Final conclusions ».

Section XIII. Supervisory error investigation.

This section covers the supplemental investigation ordered by COMMARFORLANT in writing (orders that also confirmed the verbal order of 3 February 1998) to shine further light on a number of elements, mainly possible errors in supervision, and illustrating the extent to which these may have contributed to the accident. The results are reported in the parts indicated below:

a) previous experience;

b) supervisory factors;

c) restrictions on low-level flights;

d) low-level flight rules disseminated to VMAQ-2 and VMAQ-3;

e) low-level flight rules disseminated within VMAQ-2 and VMAQ-3;

f) the mishap flight briefing;

g) updating and violation of rules in VMAQ-2 and VMAQ-3;

h) the role of the radar altimeter in the mishap flight;

i) Conclusions;

j) Previous experience;

Findings of fact.

Within the US Marine Corps, EA-6B aircraft were previously subject to a minimum altitude limit of 500 feet for low-level training. Following a suspension of all low-level training activities after numerous hazardous incidents, notably bird strikes, in March 1997 the competent authorities decided to set a new minimum altitude of 1000 feet AGL for EA-6B aircraft that were not equipped with a « Heads Up Display » (HUD). This restriction, already in effect at the time of the deployment of the VMAQ-2 Squadron to Aviano, was included in the T&R Manual – Volume I, Marines Corps Order 3500 14F.

Opinions.

The CIB concluded that:

for a certain period before the accident, the constant changes in US regulations regarding the minimum training altitude for the EA-6B could have created confusion and uncertainty in updating the real minimum levels applicable;

at any rate, about six months before the accident, all the aircrews of the VMAQ squadrons were aware of the minimum altitude of 1000 feet for low-level flights.

Considerations.

Taking note of the opinions of the CIB, we feel that it is precisely the awareness of the constant changes in US provisions regarding the minimum altitude for the EA-6B that should have prompted the competent officers, the Commanding Officer and all the aircrews to pay constant and close attention to the issue and to implement a procedure for the systematic verification of any progressive up-dates. This would have been especially important after their arrival in Aviano and during their deployment period, taking into account the new regulations and new environment in which the VMAQ-2 squadron was operating, including its training in low-level flight activity.

k) Supervisory factors;

The investigation concerned the commands of MARFOREUR, 5th ATAF – CAOC, 31st FW, 2nd MAW and MAG 14.

Findings of fact.

The MARFOREUR (Marines Corps Forces-Europe) Command, which was responsible for supplying administrative and logistical support and the deployment of VMAQ squadrons, was not included in the chain of command for OPCON and TACON of these units. The 5th ATAF-CAOC Command, which was delegated for tactical control of the VMAQ squadrons deployed at Aviano, supplied the instructions necessary before allowing the aircrews of the squadrons to begin their Operation DG activities and ordered the performance of a local area orientation flight to enable the aircrews to familiarize themselves with the zone.

The VMAQ squadrons deployed at Aviano, being guests of the USAF 31st FW, had the implicit duty to follow local operating procedures in effect on the base and to obtain documentation on the Italian regulations governing low-level training, contained in USAF MCI 11-F16.

The 31st FW's indoctrination was carried out on the basis of the needs and requirements of each squadron. If, as was the case for VMAQ-2 at the beginning of its deployment, no specific request was made for instructions on low-level training, this was because the instructional briefing focused solely on the needs of Operation DG.

The chain of command of the 2nd Marine Air Wing (MAW), which had no operational control over the deployed VMAQ squadrons, was responsible for managing the technical-operational sector. In particular, the 2nd MAW provided logistical-operational support for aircraft maintenance and repair. Along these lines, Marine Air Group 14 (MAG 14), although it had no operational control over the squadrons, maintained daily contact with them in order to provide rapid solutions to problems regarding logistical air support and the related personnel.

Opinions.

The CIB concluded that:

there were no errors of supervision on the part of COMSTRIKEFORSOUTH, MARFOREUR, the 2nd MAW and MAG 14;

the chain of command for the low-level flight activity of deployed squadrons was complicated but did not cause the accident;

the NATO chain of command and control for operational (OPCON) and tactical (TACON) aspects was primarily dedicated to the performance of NATO missions and was unclear as regards non-NATO missions and training activities, but this did not cause the accident.

Considerations.

As regards issues of supervision and the chain of command and control, the CIB, while furnishing exhaustive clarifications to demonstrate that no errors of supervision were attributed to the commands of the technical-logistical sector, did not explain why it also ruled out any similar error on the part of COMSTRIKEFORSOUTH. Furthermore, the CIB did not clarify the relationship between COMSTRIKEFORSOUTH and VMAQ-2 regarding the command and control for flight training of an exclusively national character, since such training was not related to NATO assignments and the VMAQ-2 was not an autonomous squadron.

On the other hand, the CIB's reference to the lack of clarity in the NATO chain of command and control (OPCON and TACON) regarding non-NATO missions and the training of units appears irrelevant and misleading. The reason for the reference remains obscure, having nothing to do with the EASY 01 mission, which was a US training flight falling under the US chain of command.

l) Restrictions on low-level flights.

Findings of fact.

These restrictions regard those in effect along the route on the day of the mishap.

The regulations governing low-level flights and procedures for US aircraft operating outside the Aviano area, contained in the Pilot Aid Handbook of the 31st FW, imposed a limit of 1000 feet in mountain areas between 1 November and 30 April or in the presence of snow; a maximum airspeed of 450 knots; a maximum lateral deviation of 5 nautical miles from the centerline of the route; a complete ban on flights over populated centers described in the navigation charts (scale 1:500,000 TPC) when below 1500 feet AGL and at distances of less than one nautical mile.

Route AV047, a low-level course flight divided into six legs, was one of those approved by Italian authorities and reported in the publication SOP ADD-8 of 15 July 1991, available at the 31st FW. This provided for an altitude of 2000 feet throughout the route (including the area of the accident) except the first and second legs, where an altitude of 500 feet was indicated. No evidence was found that could confirm that VMAQ-2 and VMAQ-3 were aware of SOP ADD-8.

In addition, an AV047 low-level navigation sheet, planned previously and placed in the chart file forwarded to the VMAQ-2 Squadron, indicated an altitude of 2000 feet in the section of the accident.

Subsequently, in August 1997, Italian authorities imposed an additional restriction of a minimum altitude of 2000 feet for everyone, which was incorporated into FCIF 97-16 of 29 August 1997 as part of the flight crew information files in the 31st FW. This FCIF, which effectively raised the minimum altitude to 2000 feet along the second leg and most of the first leg of AV047, along with the other legs, could not have been included in the instructions given to the aircrews of VMAQ-2 on 25 August 1997 (after their arrival in Aviano on 22 August 1997) since it had not yet been announced by the 31st FW. It was later available as unclassified information in the DG documents binder.

Opinions.

The CIB concluded that:

the aircrews should have known about the 2000-foot restriction in force for mishap leg of the route;

this lack of attention to detail in planning squadron training did not however cause the accident.

Considerations.

This Committee is of the opinion that:

considering the importance of its content, the 2000-foot limit reported in FCIF 97-16 should have been the object of a clear, specific

communication, effected through a more careful procedure on the part of the 31st FW, to units such as VMAQ-2 deployed at the Aviano base, rather than being distributed almost as if it were a routine bulletin without any evident importance;

nevertheless, even if the 31st FW did not provide detailed information on procedures, the VMAQ-2 Squadron and all the air-crews should have documented themselves at their own initiative, as was their duty, on all restrictions in effect during their stay at the base in Aviano; therefore, as admitted even by the CIB, they should all have been aware of the 2000-foot limit along that leg of the route.

m) Low-level flight rules disseminated to VMAQ-2 and VMAQ-3.

Findings of fact.

At the initial orientation briefing for the aircrews of the VMAQ squadrons after their arrival in Aviano, held by Major Watton of the 31st FW and representatives of the 5th ATAF (on special instructions, rules of engagement and information related to the missions in Bosnia), no information was provided on low-level training and altitude limits on low-level flight.

According to testimony from Maj. Watton, who distributed a copy of the Pilot Aid Handbook to pilots in the 31st FW (but not FCIF 97-16, since it did not exist at the time), these topics were not dealt with at the briefing since their presentation had not been expressly requested by VMAQ-2. At that time, greatest interest was reserved for their operational tasks in Bosnia. Nevertheless, the Commanding Officer, Lt. Col. Muegge, stated that the operational scope of the VMAQ-2 squadron included maintaining the skills of the squadron's personnel for the entire deployment period, whenever their DG duties allowed time for training missions.

The 31st FW customarily hand-distributed FCIF information to the members of 510th and 555th squadrons.

By contrast, for VMAQ-2 and VMAQ-3, FCIFs were released for delivery to the DG Operations Center in Aviano and placed in the mailbox of the receiving unit. In this distribution procedure, the 31st FW did not require any receipt in confirmation of delivery.

Opinions.

The CIB concluded that:

there was no error of supervision attributable to the 5th ATAF or the 31st FW;

however, the procedures for reception of FCIFs and related instructions could have been handled with greater precision and care for training flights in Italy.

Considerations.

This Committee observes that, contrary to the assertions of the CIB, the procedures for receiving FCIFs « should » and not « could » have been handled with greater precision and care. It should also be underscored that one of the duties of the VMAQ-2 advance team sent to Aviano before the deployment of the squadron was to gathering all information regarding relevant organizational questions such as mail distribution procedures, mailboxes, etc.

n) low-level flight rules disseminated within the VMAQ-2 and VMAQ-3 squadrons.

Findings of fact.

During the course of the supplemental investigation into the distribution procedures within the VMAQ squadrons as regards the 2000-foot restriction reported in FCIF 97-16 of 29 August 1997, the fact emerged that the FCIF, once issued by the 31st FW, was distributed within the VMAQ-2 Squadron with a significant delay after its date of issue. This was because it was held up for a considerable period at the squadron's Safety Department (directed by Maj. Caramanian). As a consequence, important information was not distributed to the aircrews for which it was intended (as noted elsewhere, 15 out of 18 airmen in the VMAQ-2 squadron were not aware of the 2000-foot restriction in Trentino-Alto Adige.

Within the VMAQ-3 squadron, which was deployed in Aviano between February and August 1997, all aircrews had been informed in early May 1997 of the 1000-foot altitude limit, as prescribed by the T&R Manual, Volume I, in the edition updated with the modification raising the limit from 500 to 1000 feet following the communication from MAG 14.

Opinions.

The CIB confirmed that:

there was an error of supervision in the VMAQ-2 Squadron in not having instituted a formal procedure for distributing FCIFs, including the one communicating the restriction of 2000 feet;

the supervisors involved were identified as the Commanding Officer, the Operations Officer, the Safety and Standardization Officer and the Aviation Safety Officer;

this error of supervision had been an « oversight » in disseminating detailed information on the training program of the aircrews, but this did not cause the accident. It was remarked that the oversight occurred despite the fact that Capt. Roys had advised the aircrews that there was new information, at least 15 of 18 flight personnel did consult the appropriate documentation;

although the altitude of 2000 feet was the minimum authorized along the section of the mishap, the aircraft would have avoided all obstacles along the route if it had flown at the planned altitude of 1000 feet AGL.

Considerations.

No considerations have been formulated.

o) The mishap flight briefing.

Findings of fact.

In the pre-flight briefing for mission EASY 01, 1000 feet AGL was considered to be the minimum limit (as indicated in USAF MCI 11 – F 16 on low-level flights over mountain areas during winter months) but the restriction of 2000 feet given in FCIF 97-16 was not considered.

At the briefing, held in the presence of the ODO (Capt. Recce), Capt. Schweitzer (ECMO1) informed the crew of the 1000-foot limit for the upcoming flight. Neither the ECMO1 nor the ODO was aware of the FCIF in question. As regards the copies of the navigation charts with the preset course and the altitude marked at 2000 feet for the leg of the mishap (where the word QUOTA [ALTITUDE] was written in Italian) found on board the aircraft after the flight (which the CIB thought had been brought into the cockpit before the flight) as well as in the squadron's navigation chart file in the section designated for standard operating procedures for low-level operations, it was determined that it was customary procedure to use the maps for low-level flights and the pre-printed navigation charts from the file.

Opinions.

In the view of the CIB, the aircrew could have considered the altitude of 2000 feet as a restriction had they directly plotted their own charts instead of using those prepared by others.

Considerations.

It cannot be ruled out that the aircrew, as asserted by the CIB, might have considered the altitude of 2000 feet as a limit or a restriction had they directly plotted their charts instead of using copies already prepared by another aircrew. However, the aircrew should have had at least some doubt when they noted the discrepancy between 1000-feet limit they had been instructed to observe during the briefing and the 2000-foot limit indicated on the pre-prepared route charticolo

In contrast to the CIB's view, it stands to reason that the aircrew should have first asked themselves whether the indication of 2000 feet was valid or not, as a certain amount of time had passed since the

pre-completed route chart had been drafted. In addition, since introduction of the BOAT manual, the flow of traffic in the corridors indicated in the manual ran clockwise on even-numbered days and counter-clockwise on odd-numbered days. Based on this, the leg of the route along which the mishap occurred should have been flown at an altitude of 2000 feet or more, since the flight took place an odd-numbered day (3 February).

At first glance, this hypothesis might be interpreted as an extenuating circumstance for the aircrew, given that they were not aware of the 2000-feet restriction. Instead, it should in fact demonstrate their carelessness and lack of professionalism in preparing for the flight. The chart used, even if pre-planned by others, should have first been verified for reliability and then carefully studied and examined even before the pre-flight briefing.

p) Updating and violation of regulations in VMAQ-2 and VMAQ-3;

Findings of fact.

As regards ensuring compliance with regulations, the Commander of the VMAQ-2 Squadron, Lt. Col. Muegge, stated that he had established a « by the book » climate of command and had made his policy abundantly clear in numerous meetings with all the officers and in sessions on aircrew training, safety and squadron formations. At these meetings he stated that there would be « zero tolerance » of any intentional violation of regulations. This vigorous and determined policy applied both to non-compliance with service regulations, as in the case of an officer grounded for failing to attend a safety briefing, and to violations of flight regulations, as in an earlier case involving the pilot of the EASY 01 mission, Capt. Ashby, who had effected a take-off from the runway at Aviano, as number three in a formation, in such an unusually low manner that it seemed a violation. Capt. Ashby said his action was necessary to avoid the wash of the aircraft taking off ahead of him. The pilot was admonished and advised to use a more appropriate technique in the future in order to avoid running such a risk.

On its part, the VMAQ-3 Squadron showed that it had an appropriate and effective « read and initial » procedure to ensure that aircrews were aware of changes in flight procedures both at their home base and when deployed elsewhere. In particular, the squadron attentively re-examined all publications related to low-level flights, the base of deployment and relevant SOPs, as well as the minimum altitudes for low-level training and coordination procedures for aircrews in the use of the radar altimeter in flight. It was also part of the Commander's policy to ground aircrews if they violated flight regulations.

As regarding the violation of said regulations, out of 18 aircrew members in VMAQ-2, the 16 willing to be questioned said they had

never intentionally nor consciously violated any minimum altitude restriction in low-level flights, nor had they flown under any cable or ever heard of anyone flying under any cable. Two officers, Capt. Sheils and Capt. Grischkowski, chose not to be questioned. In the VMAQ-3 Squadron, similar statements were given by the 19 aircrew members willing to respond (one officer, Lt. Col. Watters, declined to be questioned).

Opinions.

The CIB concluded that:

the aircrew members in the VMAQ-2 and VMAQ-3 squadrons who agreed to be questioned had not intentionally or consciously violated the minimum limits for low-level flight.

Considerations.

As regards the statements of the Commanding Officer concerning the two examples of his zero-tolerance policy toward violators of service and flight regulations, in our view there is a contradiction between the positive assessment of the professionalism of Capt. Ashby and the admonishment he received for his risky take-off maneuver in formation. The CIB took neither of these cases regarding prior disciplinary measures into account, having previously stated it did not find any element of carelessness or lack of discipline.

q) The role of the radar altimeter in the mishap flight.

Findings of fact.

To begin, it was known among all the aircrews that during low-level flights with the EA-6B aircraft the crew dedicated most of their time looking out, principally evaluating the aircraft's position in space by using visual indications and cues (standard procedure for a basic low-level flight).

The radar altimeter installed on the EA-6B was used to measure and indicate the altitude of the aircraft above ground level and, by adjusting the settings on an indicator, as an acoustic low altitude warning system (through an alarm in the helmet headset). On the EA-6B, only the pilot could directly see the radar altimeter instrument (positioned in front of him), while the view of the ECMO1 was altered by parallax.

Based on the NATOPS manual, the radar altimeter should be used by the pilot to maximize safety in a low-altitude environment. The pilot and ECMO1 had to coordinate on-board tasks in order to manage the more demanding workload in low-level flight, while the ECMO2 and ECMO3, who were not able to observe the instrument, had to be

constantly aware of the situation of the aircraft and the external environment and be prepared to provide immediate assistance to the pilot and ECMO1 whenever necessary. They could also hear the warning alarm indicating that the minimum altitude limit had been breached.

Where necessary, on hearing the warning alarm the ECMO1 would immediately alert the pilot to take the prescribed corrective action (increasing altitude, resetting the indicator and alerting the ECMO1) if the pilot had not already done so at his own initiative.

According to the SOP in effect at VMAQ-2, the warning indicator of the radar altimeter during a flight below 5000 feet was normally to be set at a level 10% below the assigned altitude. For low-level flights, it was also required that the radar altimeter be functioning perfectly. A key characteristic of the system was the acoustic warning of the low-level limit, which had to function independently of the instrument's visual indicator, thereby guaranteeing that the crew would be alerted to the situation even if the visual indicator gave an inaccurate reading. In any case, the low-level warning signal and light would continue to function even if the needle stuck while the aircraft descended below the minimum altitude.

Careful and thorough investigation revealed that the radar altimeter was functioning correctly before the flight. In flight, during the second leg of the course, the crew stated that the system seemed to stick for a brief time at 2000 feet, but after checks regained normal function along the same section of the flight. After the flight, repeated tests showed that the radar altimeter system was completely functional, with the exception of a number of minor discrepancies (for example, an error of 10 feet) that would have no operational impact.

Opinions.

The CIB concluded that:

the radar altimeter was functioning correctly during the mishap flight;

the pilot had set the low-level warning indicator well below 1000 feet;

the aircrew should have been aware of the difference between 1000 feet and 500 feet AGL, estimating it on the basis of visual cues.

Considerations.

In agreeing with the opinions of the CIB, we also note that the radar altimeter, having definitively ruled out unreliability as a factor, did not play a decisive in the accident. Doubt remains as to whether either of the other two aircrew members, ECMO2 and ECMO3, were aware of the incorrect setting of the instrument by the pilot.

Section XIV. Statements between Brig. Gen. Peppe and Lt. Col. Muegge.

This section clarifies the issue that arose following a late statement released personally by Brig. Gen. Peppe, Commander of the 31st FW, to Gen. DeLong, President of the CIB, which seemed to contradict other information obtained previously from the VMAQ-2 regarding aircrews' awareness of document FCIF 97-16.

Findings of fact.

The question originated from a misunderstanding in conversations between Brig. Gen. Peppe and Lt. Col. Muegge.

Following clarifications, it was reaffirmed that, based on their statements, 15 of the 18 members of the aircrews in VMAQ-2 knew nothing about the restriction of 2000 feet AGL in the Trentino-Alto Adige Region or FCIF 97-16 before the accident. One of the three exceptions was an ECMO, Capt. Robinson, who stated he had heard something about the 2000-foot restriction mentioned by an Operations Duty Officer (ODO), whose identity he could not remember, sometime around November 1997, on the occasion of his first or second low-level flight. The other officers, Capts. Sheils and Grischkowski, chose not to be questioned.

Opinions.

The CIB concluded that:

fifteen of the 18 aircrew members in VMAQ-2, including Lt. Col. Muegge, knew nothing either of FCIF 97-16 or of the low-level altitude restriction of 2000 feet AGL before the accident;

the conversation between Brig. Gen. Peppe and Lt. Col. Muegge had been misunderstood.

Considerations.

Having obtained the clarification of the conversation between Brig. Gen. Peppe and Lt. Col. Muegge, it remains unclear why Brig. Gen. Peppe decided, at his own initiative, to raise the question of the conversation, with the consequent misunderstanding regarding the knowledge or lack thereof of FCIF 97-16 on the part of the aircrews in the VMAQ-2 Squadron, only after a month from the accident. One plausible reason may have been that Gen. Peppe wished to avoid involving his own USAF unit in this matter, having suspected or been concerned that disciplinary action might be taken against him. Under this hypothesis, he would have been protecting his own unit and himself by drawing the attention of the President of the CIB in order

to underscore any responsibility that VMAQ-2 might have and distance it from any possible responsibility on the part of the 31st FW. The fact that 15 out of 18 aircrew members were not aware of FCIF 97-16 does necessarily undermine Capt. Robinson's credibility, the only officer to have mentioned being aware, albeit vaguely, of the restriction.

Final Conclusions.

The conclusions of the CIB, including those for Section XII, reviewed and supplemented in light of the results of the additional investigation into the issues described and examined in Section XIII and taking into account the clarifications obtained in the investigation dealt with in Section XIV, are set out below.

On 3 February 1998 a low-flying EA-6B from VMAQ-2 struck and severed two gondola cables that were suspended at approximately 111 and 113 meters AGL (364 and 370 feet), causing the gondola to fall, resulting in the deaths of twenty multi-national civilians and significant damage to civilian property as well as the aircraft.

The cause of the mishap was aircrew error. The aircrew aggressively maneuvered their aircraft, exceeded the maximum airspeed and flew well below 1000 feet AGL on the second and sixth legs.

The results of the Board's investigation indicated that on at least two of the six legs of the low-level flight, the mishap aircrew flew below 1000 feet AGL and exceeded the maximum airspeed (450 knots) by 100 nautical miles per hour.

The cable strike was not a one-time altitude miscalculation because the mishap aircraft flew lower and faster than authorized whenever the terrain permitted. The aircrew violated the flight restrictions on this low-level route.

There were several documents in the squadron area which indicated that there was a 2000-foot restriction (an area restriction for the Alps and a specific altitude for the published route). However, 15 of the 18 flight aircrew members in VMAQ-2 believed the restriction to be 1000 feet AGL and were unaware of any 2000-foot low-level restriction in the local flying area. This was the result of supervisory error. However, this inattention to detail in their aircrew training program did not cause the mishap.

The supervisory error in VMAQ-2 in not having established a formal « read and initial » program for FCIF notices and other unclassified information was not caused by VMAQ-3.

There did not appear to be a pattern of unprofessional or reckless attitudes within the Squadron that contributed to the mishap.

The Board determined the chain of command for Marine Corps deployed squadrons in Europe and NATO was cumbersome and complicated, but did not cause the mishap.

The NATO OPCON and TACON was related primarily to accomplishing the NATO mission and was unclear with regard to accomplishing non-NATO missions and unit training, but did not cause the mishap.

Recommendations.

The CIB concluded its report with a number of recommendations:

that appropriate disciplinary and administrative actions be taken against the mishap aircrew;

that appropriate administrative action be taken against the Commanding Officer and Operations Officer for their inattention to detail in identifying and disseminating pertinent flight information for the local training sorties;

that appropriate administrative action be taken against the Director of Safety and Standardization, the Aviation Safety Officer and any other aircrew training officers for their direct involvement in not identifying and disseminating pertinent flight information for the local training sorties;

that each deploying squadron prepare a Standard Operating Procedure (SOP) for deployment to ensure that they can operate safely at their new location;

that a copy of the investigation be provided to the appropriate NATO, Joint and Service Headquarters with a view toward improving coordination and dissemination of information to deploying units in Europe;

that the National Imagery and Mapping Agency (NIMA) should review all map sources from a foreign country to ensure that all obstructions to flight are accurately plotted;

that US OPCON chain of command be established for Marine squadrons deploying in support of NATO operations. This would be intended to clarify/unify command authority and responsibility for non-NATO missions as well as unit training in theater. This parallels command procedures of the other services;

that all proper claims for death and property damage should be paid in accordance with Article VIII of the NATO SOFA.

More in particular, administrative actions were requested against:

the Commanding Officer and Operations Officer for their lack of attention in identifying and disseminating pertinent flight information for their local training missions;

the Director of Safety and Standardization, the Aviation Safety Officer and any other aircrew training officer for their direct involvement in not having identified and disseminated the essential flight information for their local training flights.

Concluding considerations.

As stated in the introductory section, it remains unclear why the US authorities decided to proceed with the investigation into the tragic

event with a Command Investigation Board in accordance with the JAG Manual, rather than the « privileged » aircraft accident safety investigation provided for in STANAG 3531.

An examination of the report reveals the remarkable amount of work carried out by the CIB. The issues, opinions and results were presented in a sufficiently clear and generally exhaustive manner The overall investigation embraced all the issues pertaining to the mishap flight and the fundamental or most significant elements and relevant factors, along with their various implications.

In certain parts the investigation provided a very thorough, exhaustive and, at times, even abundant amount of data, with investigative actions and judgments repeated for the same material from different perspectives, either out of the need for further verification or because of the work method adopted. In other sections, the investigation seemed superficial and incomplete, failing to furnish sufficient and convincing explanations. One example is the CIB's conclusion that it could rule out errors of supervision in the US chain of command above the squadron level, especially as regards COMSTRIKEFORSOUTH and the US chain of command for low-level flight training activities (a US national priority) for the VMAQ squadrons deployed at Aviano.

This Committee substantially agrees with part of the opinions, results and conclusions presented in the CIB report.

Nevertheless, certain arguments and points were not analyzed by the CIB, which either expressed no opinion on them or did not considered them adequately. Before indicating these points, attention should be brought once again to the following key elements:

the aircraft used in mission « EASY 01 » was safe for flight; all its instruments, equipment and systems functioned normally in flight;

the radar altimeter functioned properly in flight. The pilot set the low altitude warning indicator well below 1000 feet. Had the apparatus been used properly, it would have helped alert the crew to their altitude and the possible risk of obstacles in their flight path;

weather conditions, especially visibility, were excellent and had no influence on the conduct of the flight and maneuvers of the aircraft;

the aircrew members were psychologically and physically fit for the flight;

the aircrew was qualified and trained to carry out the type of low-level visual navigation training flight planned (VNAV-215). The pilot was judged properly trained even though his last low-level mission was executed seven months earlier and was therefore short on practice. The VNAV-215 mission was a basic flight, i.e. designed to help regain familiarity with low-level flights for a aircrew with very little specific training over the previous six-month period. In such cases, the flight should have been conducted in a conservative manner; (10)

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(10) A "conservative flight" means one carried out with particular prudence, fully complying with altitude and airspeed restrictions. The latter must be kept within average values, in this case between 420 and 450 knots.

the aircrew prepared the flight plan without knowing the altitude regulations and limitations for low-level flights in Italy, in particular for course AV047. A properly briefed aircrew, in addition to being conscientious, should have also known of the restriction of 2000 feet AGL along the route;

it is the responsibility of the squadron and the aircrews involved to acquire all documents and elements necessary for the safe conduct of low-level flights when on deployment. The failure to acquire and study such documents and/or the slow distribution of information connected with the flight can not therefore be considered simply an error in supervision and lack of attention but is rather a command failure and lack of a sense of responsibility both in the chain of command and the individual members of the aircrew, with particular reference to the pilot, who had final responsibility for the safe planning and execution of the flight;

despite the warning about notification of new information in FCIF 97-16 regarding the 2000-foot restriction over the Trentino-Alto Adige Region, verbally communicated by a squadron officer during a meeting of the aircrews, nearly all the latter continued to be unaware of the existence of precise low-level flight limitations that differed from those they were familiar with;

although mission EASY 01 was performed without any time on target objective, most of route AV047 was flown at well below 1000 feet and with an average airspeed much higher than 450 knots, at times as fast as 550 knots. This sort of conduct for a pilot with little low-level training, as was the case with Capt. Ashby, was decidedly unprofessional, and the prolonged violation of flight restrictions cannot be construed as « human error » but rather as « indiscipline ».

As regards the points either not examined or inadequately considered, the Commission feels that the CIB:

did not deal with the issue of the US chain of command relationship between COMSTRIKEFORSOUTH and the VMAQ-2 Squadron, nor did it touch on any limit on the autonomy of the squadron or any potential directives from superior authorities on low-level training programs for national purposes during the deployment period. The CIB limited itself to the extremely terse comment that COMSTRIKEFORSOUTH neither controlled daily training nor issued any guidelines for training itself. This does not rule out the possibility that COMSTRIKEFORSOUTH authorized the training flights of VMAQ-2 in a limited way, granting clearance for the use of the aircrews and aircraft depending on the priority needs of Operation DG. If COMSTRIKEFORSOUTH was not responsible for supervising such training, the CIB should have identified and indicated the command immediately superior to VMAQ-2, responsible for controlling training operations and verifying compliance with directives in force. This issue is relevant given that the CIB itself mentioned the « lack of clarity » in relationships in the NATO chain of command (as in the case

of Operation Deliberate Guard) when handling training activities not related to DG operations, to the extent of recommending the constitution of a US OPCON chain of command for Marine squadrons deployed in support of NATO operations;

did not consider that, although there was no obligation to use Italian charts (available at the 31st FW), just as there was no specific obligation to use American charts, the aircrew of mission EASY 01 should have at any rate documented itself and consulted the Italian charts in preparing the AV047 route chart and the mission itself, as called for in Italian procedures;

adopted a restrictive and debatable criteria requiring agreement between at least two of the three data sources available (mission recorder, AWACS and eyewitness statements) to validate altitude levels during the mishap flight;

did not clarify the motives and criteria used in selecting only 33 mission recorder data points out of the 128 available to reconstruct the flight path;

did not use the available data to formulate any hypothesis regarding the actions of the aircraft along the course segment leading up to the impact;

gave no evidence on having conducted any analysis of the low-level flights carried out from Aviano in the pre-mishap period by aircrews from the same unit, or of the purposes, methods or possible problems associated with such missions;

did not investigate the aircrew's effective knowledge of the Cermis area and the existence of the cablecar, and past flyovers of the area. The CIB simply limited itself to reporting the statements of the aircrew members without verifying their reliability;

did not address even briefly the question of the video and photographic equipment found on board, either in terms of potential risks to flight safety or the possibility that recorded material had been removed, concealed, destroyed or altered. It simply deemed the issue irrelevant to the investigation;

made no mention of the apparently contradictory judgment of Commanding Officer Lt. Col. Muegge, who gave a very positive evaluation of the professionalism of Capt. Ashby, stating that he had considerable experience and high level skills, while also using Ashby to illustrate his self-declared zero-tolerance policy toward violators of flight and service regulations, namely the admonishment following a risky maneuver during a formation takeoff from Aviano.

Although the CIB specified in its conclusions that the aircrew had maneuvered in an aggressive manner, violating regulations, and that the mishap was not caused by any one miscalculation, it did not clearly demonstrate that the nature of the violations, their repetition and seriousness could be ascribed anything but fully aware, premeditated,

undisciplined and reckless conduct, carried out in violation not only of Italian regulations but also those of the US Marine Corps.

Finally, this Committee has had the general impression that the work of the CIB seemed aimed at keeping the investigation confined to the squadron level, without attempting to identify any further factors of interest, including the assignment of responsibility.

In view of the above facts and considerations, and while acknowledging the effort made, the report of the CIB is ultimately unsatisfactory.

6. THE TRIALS IN THE UNITED STATES

6.1 The preliminary inquiry

On 27 March 1998, Commander of Marine Corps Forces, Atlantic, Gen. Peter Pace, pursuant to Article 32 of the US Uniform Code of Military Justice, appointed Lt. Col. Ronald L. Rodgers as hearing officer for the Cermis tragedy. In his letter of assignment, he invited him to carry out an in-depth and impartial investigation into the conduct of the crew of the EASY 01 mission and send him the results as soon as possible.

The hearings commenced on 20 April 1998 in the presence of the defense attorneys. On that occasion Rodgers, taking into consideration the requests of the pilot and co-pilot's defense attorneys – who requested that the hearings be postponed – decided to differentiate the positions: on the one hand, those of ECMO3 and ECMO4, capts. William Raney and Chandler Seagraves (who were later heard on 5 May 1998), on the other those of the pilot and co-pilot, capts. Richard Ashby and Joseph Schweitzer. The first day of the hearings was set for 15 June 1998.

Eighteen witnesses, all members of the Marine Corps except one investigator and one mechanical engineer, were heard.

During the examination of capts. Raney and Seagraves, it emerged that the on-board video camera may have been tampered with, since the film was not gray (like new tapes) but black – a sign of erasure, which the Pentagon requested from Italy together with the recordings of the communications between the aircraft and the control tower, as well as that of a telephone conversation between Capt. Ashby and his general shortly after the mishap. It was also learned that the pilots were unaware of the 2000-foot limit. In particular, the Commander of VMAQ-2, Lt. Col. Richard Muegge, recalled that, following an accident, the minimum height had been doubled from 500 to 1000 feet.

On 30 June 1998, the hearing officer concluded his inquiries and recommended that Capt. Ashby and Capt. Schweitzer be court-martialed and that all charges be dropped against the other two crewmen.

The officer recommended that the plane's pilot and navigator should be charged with dereliction of duty in their conduct of the flight; damage of military property; damage of private property; and involuntary manslaughter and negligent homicide.

Lt. Col. Rodgers had no hesitation in recommending that Ashby should be court-martialed even though, he declared, the outcome was uncertain due to the existence of « systemic errors » for which the crewmen could not be considered responsible, and due to evidence of non-criminal negligent conduct introduced by an expert Prowler pilot, Blickensderfer, a witness who suggested the pilot may have been unaware of the altitude at which he was flying. According to Lt. Col. Rodgers, « systemic errors » could be established in the chain of communications within the Marine squadron based in Aviano, within internal Air Force communications, and in communications between the two military forces. The 31st Fighter Wing's Pilot Aid Handbook that the Air Force had given to the Marine pilots did not include the Italian regulations on the 2000-foot limit, and the Marine official charged with planning the missions did not examine this information or did not understand its importance.

Furthermore, according to the military judge, the US agency responsible for Italian maps had used scales which did not contain information about aerial obstacles such as the cablecar suspension cables. This information, on the other hand, was contained in the other maps that the Air Force had received in April 1996, but of which the 31st FW was unaware. Despite these errors, Capt. Ashby was sent for trial for having been too aggressive in carrying out his training mission, failing to take adequate measures to establish the safe altitude in the valley where the mishap occurred. Even though the six cableways did not appear on his map, the pilot flew too low and too fast.

A more difficult case was that of the navigator, Schweitzer, as Rodgers wrote in his report: it is difficult to establish a causal relationship between the conduct and the event, since any error that may have been made during the flight was omissive behavior and not a commissive act. In any case, Rodgers reported, the possible negligence of Schweitzer was not the gross negligence required for to establish responsibility for involuntary manslaughter.

Lt. Col. Rodgers concluded that the charges against capts. Raney and Seagraves should be dropped, since he maintained that there was no reasonable evidence that these officers had been negligent in carrying out their duties, and that even if there had been any such negligence, no causal effect on the event could be established. During a test flight, Lt. Col. Rodgers himself verified that those sitting in the rear seats had restricted visibility and could communicate with the pilot and navigator only through their headsets.

On 10 July 1998, the Commander of Marine Corps Forces, Atlantic, Gen. Pace, hearing the conclusions of the preliminary inquiry, dropped the charges against capts. Seagraves and Raney, and ordered a court martial both for Capt. Ashby and Capt. Schweitzer, with the same counts proposed by Lt. Col. Rodgers. He rejected the arguments put forward by the pilot's defense counsel pointing to responsibilities within the chain of command.

On 30 August 1998, capts. Ashby and Schweitzer were charged with obstruction of justice and conspiracy to obstruct justice for removing the video cassette from the cockpit and hindering the

retrieval of the evidence. The hypothesis was that the two officers had erased a video taken during the flight of 3 February. The Article 32 hearing was scheduled for September. Capt. Schweitzer agreed to the inclusion of these counts in the trial against him for involuntary manslaughter, while Capt. Ashby availed himself of the right to request a separate review.

On 1 September, a press release issued by the Marine Command announced Capt. Seagraves's intention to co-operate with the investigators in collecting evidence against Capts. Ashby and Schweitzer. It explains that the two men had requested his assistance in an attempted conspiracy to hide the video. It was thus learned that there had been two videos on board the Prowler: the blank one on the trial record in Italy, and another which had disappeared. On 10 November 1998, Capt. Ashby appeared before the US military court to respond to the charges of obstruction of justice and conspiring to destroy evidence.

6.2 The court martial of Capt. Richard J. Ashby for involuntary manslaughter and negligent homicide

On 3 August 1998 in Camp Lejeune, in North Carolina, the first hearing was held of the court martial of the Marines for the Cavalese accident, presided over by the military judge Robert Nunley. Capts. Ashby and Schweitzer declined to plead guilty or innocent, and the judge ordered the trial of Capt. Richard J. Ashby from 7 to 18 December 1998.

The charges to which they were called upon to answer before a jury of eight Marine Corps officers were dereliction of duty in their conduct of the flight, damage of military property; damage of private property; and 20 counts of involuntary manslaughter and negligent homicide in the tragedy of 3 February 1998.

Court-room arguments. The prosecution case.

According to the prosecution case, put forward by military prosecutor Maj. Daugherty, Capt. Ashby was in full control of his aircraft when, at a speed of 540 knots, the maximum permitted for that type of aircraft, he entered Val di Fiemme, a few moments before impact with the Cermis cableway. It was he who adopted the reckless maneuver which took the plane to 360 feet above the ground, in contempt of the rule « written in blood » which establishes a minimum altitude of 1000 feet. (11). He argued: « Captain Ashby made the decision on how much to brief and how much to plan. Captain Ashby made the decision at what altitude to fly his aircraft. Captain Ashby made the decision to throw timing out of the problem. Captain Ashby made the decision at what speed to maneuver his aircraft, and at what

(11) The reference was to an air accident involving Marines Prowlers in the United States about one year previously, after which the minimum flight altitude for these aircraft had been doubled.

speed to fly his aircraft. Captain Ashby made the decision on what rules, regulations and standard operating procedures he would follow. He doesn't have that choice. He's bound by NATOPS and his SOPs ... But Captain Ashby didn't know what was in those bags. He didn't know what was in the pilot aids. He didn't know the simple speed limitation there. ... Captain Ashby took unjustifiable hazards when he maneuvered that aircraft at 540 knots into the Cavalese valley. He's in that valley for 20, 23 seconds before he begins maneuvering his aircraft. And, at that point, he put himself into a situation he couldn't get himself out of, because now he's at maximum speed, at minimum height, and he's maneuvering. There's nothing left in that aircraft to give. He is on a rocket sled going right through there, and instead of pulling up, he puts 2400 feet a minute rate of descent down, and he banks to his right, and he banks to his left. » In the view of the prosecution, the size of the violation of the altitude limit – 65% below the minimum – and the type of maneuver adopted shortly before impact with the cableway were decisive factors for considering that Capt. Ashby knew what he was doing and could not claim *force majeure*.

Prosecutors also argued that there was an obvious causal relationship between the impact with the cableway and violation of the minimum altitude combined with high speed.

The prosecution then focused on the tapes that were made, then erased and replaced, stating that such conduct was further proof of the pilot's guilt. He did not want evidence of his conduct in flight to be found: if he had really found himself unconsciously and unwillingly in a dangerous situation, what better proof could he have had than the video recording ?

Daugherty said to the jury: « And they are the same two guys [Captain Ashby and Captain Schweitzer] who sat in the damaged aircraft, took this camera out, as the crash crew is rushing up to them to insure their lives are preserved, took the tape out, and left this one behind for you folks A blank one. They know there's going to be an investigation. They just screwed up a $ 60 million aircraft. They know they hit a cablecar. They know they took out cables. We saw a cablecar, we saw cables, we tried to avoid them, we took them out. Well, they squawked 7700. They contact Potabo, hey, notify Aviano, we've got structural damage, we're coming in hot. Where was the radio call of, hey, we just saw a cablecar, we hit cables, somebody better get emergency services into that valley ? .... They're swapping tapes out because they don't want you to know what went on in that aircraft. »

The arguments of the defense.

According to the defense, the Cermis tragedy was a terrible accident that occurred during training, and nothing more; an event lasting between six and eight seconds. If we consider the time spent by Ashby in the valley where the mishap occurred before he struck the cables, the evidence of the prosecution demonstrates that Ashby did nothing wrong. On the basis of witnesses' and consultants' statements

to the effect that flight is no more than a series of successive course corrections and that there may have been serious problems of visual perception of the real altitude in those particular flight conditions, the defense maintained that it is possible that Capt. Ashby, for a period of between six and eight seconds, inadvertently descended lower than he thought and hit the cables. The defense then asserted that the incident was a trap, that it was an accident that was destined to occur. A series of unfortunate events came together in that period of six to eight seconds which put a reasonable pilot on a reasonable mission in a position in which he was unable to see and unable to avoid the cables.

Continuing, they argued that the experts had testified that there are reasonable explanations for those six to eight seconds before the cable was hit, and how this may have happened without any rules having being broken. How can a pilot know he has a problem of visual perception ? If it is not possible to descend below 1000 feet, why do operational procedures specify that the radar altimeter can normally be regulated to 10 percent below the authorized altitude ? In short, one can fly below 1000 feet and still be within regulations. Does this mean that one can fly knowingly and intentionally below 1000 feet ? Certainly not. But, the answer to the question as to whether it can be permissible to do so is clearly yes. On the basis of my reconstruction, which may be off by about 150 feet, more or less. Thus, you have a plane which is flying down the valley with a ground level that is rising, and rising very rapidly.

In the last three seconds, the ground level is rising rapidly and steeply, which would justify a loss of altitude of 150 feet above ground level, even though Captain Ashby is following the average altitude above sea level. Tests show that on this visual navigation and training mission, each time the plane descended, the altitude was corrected.

In conclusion, it was an accident waiting to happen, without any responsibility on the part of the aircrew.

As concerns the video, the defense pointed out that the pilots knew that a security investigation would probably be carried out and that they wanted to see what was on the tape. They believed that this would be carefully analyzed and only wanted to know what was on the tape in order to be able to reply to the questions.

The verdict.

At the end of the trial, following the closing arguments of the prosecution and the defense, at the session of 3 March 1999 the judge instructed the jury, as follows:

When they met to decide and vote upon the circumstances, each would have to resolve the definitive question as to whether the accused was guilty or not guilty on the basis of the evidence presented in the court and the instructions of the judge.

It is the judge's duty to instruct jurors about the law. It is their duty to decide about the facts, apply the law to the facts and thus

establish the guilt or the innocence of the accused, bearing once again in mind that the law presumes the accused to be innocent of the charges leveled against him.

They had just listened to an account of the facts by the attorneys of both sides, according to their points of view. They would have to bear in mind that the concluding statements of both attorneys do not constitute evidence. They had to base their decisions on the issues on the evidence, as they remembered it. They had to decide that the accused was guilty of an offence only if they were convinced of his guilt on the basis of legal and other evidence beyond all reasonable doubt, in relation to each and every element of that offence.

The judge then gave a detailed illustration of each of the charges and the individual facts and elements whose existence had to be proven in order to find the accused guilty on each charge. The crux of the matter was that the charges had to be proven « beyond all reasonable doubt ». Without this certainty about the precise term formulated by the prosecution, the accused must be considered innocent.

The conclusions are known: on March 4, 1999, after seven and a half hours in chambers, Capt. Ashby was acquitted by the jury on all charges. As is well known, a verdict is by its very nature unmotivated. Evidently, no majority was reached on the « guilt beyond all reasonable doubt » of the accused. The doubts insinuated by the defense concerning errors in the operations management system – i.e. in the chain of command – and about the possibility of inculpable lack of awareness of the situation of danger prevailed.

On March 15, it was aksed that the charges be dropped against Capt. Schweitzer.

6.3 The trial of Captain Joseph P. Schweitzer for obstruction of justice and conspiracy to obstruct justice

On 29 March 1999, Capt. Schweitzer was tried for obstruction of justice and withholding evidence. He admitted his guilt and plea bargained. During questioning, he maintained that he had removed the video out of fear of the Italian reaction, arguing that they would have misunderstood its content. Italian television would have broadcast it along with pictures of the bleeding bodies next to the cableway. They were already being called cowboys and air killers, and had said many things with no foundation. On April 28, 1999, he was granted immunity from further charges in order to testify against Capt. Ashby. On April 2, the court martial ordered that he should be dismissed from the Marines, which involves banishment from public life, while it enabled him to avoid detention only because he had admitted his responsibility.

6.4 The trial against Capt. Richard J. Ashby for obstruction of justice and conspiracy to obstruct justice

In this trial, the facts were reconstructed and the evidence and proof brought by the Legal Services Support Section 2nd Force's

Service Support Group, United States Marine Corps, were deemed valid. The prosecution ascertained that a video camera and two tapes had been taken on board the plane. This was made clear by the declarations made by Packmann, the corporal assigned to the Prowler crew. Capt. Schweitzer, who was already on board the aircraft, which was about to take off, had asked Cpl. Packmann to return to the ready room to retrieve two 8 mm tapes. The corporal declared that there were two or three tapes in the bag he fetched and then handed to Ransom, the technician, who was also assigned to VMAQ-2 and who in turn gave it to Schweitzer. According to Ransom, the crew remained in the jet waiting for something before taking off. Lt. Col. Palmquist had told Ransom that someone was taking the tapes onto the plane and therefore asked him to go the car, get the tapes and take them to Capt. Schweitzer. Ransom had thought that Palmquist was talking about the mission data for the inertial navigation system, but the tapes were smaller and the bag, which was never found, could have contained one or two 8 mm VCR tapes. The plane took off immediately after the bag was received. In his statement, Lt. Col. Palmquist confirmed Ransom's statement, which was further supported by the evidence given by Capt. Seagraves, who recalled that Capts. Ashley and Schweitzer had said that takeoff would be delayed until the tapes arrived.

Capt. Seagraves also recalled that the video camera was mentioned during the flight briefing, and that Capt. Schweitzer had expressed his wish to film the mountains in order to show his family and friends. He also stated that the video camera had been used during the flight. Capt. Schweitzer had talked about the video camera being used and Capt. Seagraves had seen the pictures but was not sure whether or not the camera was operating. He heard Capt. Ashby tell Capt. Schweitzer to put the video camera away for the first turning point, although he did not remember if his colleague had actually done so. Capt. Seagraves also confirmed that while he was between 50 and 75 yards from the plane, after the emergency landing, he had seen Capts. Ashby and Schweitzer still on board, even though the plane was damaged and was leaking fuel, and Capt. Raney had broken a foot while jumping from the plane.

When drawing up the inventory of what was still on board the Prowler, Sergeant Willie Moss found a video camera containing an unused 8 mm tape at the side of the front instrument panel of ECMO1. This was later confirmed by Major Guarenollo and by the RadAlt engineer, Mr. Fitzgerald, who also found the partial casing of an 8 mm video cassette inserted in the forward console of the aircraft. Capt. Seagraves declared that, one or two weeks after the mishap, Capts. Ashby and Schweitzer had confessed to him that they had thrown the video cassettes away after landing. Capt. Seagraves could not remember which of the two it had been, but he thought it might have been Capt. Schweitzer who said « We destroyed the tape ». Capt. Schweitzer told Lt. Col. Muegge that there was a video camera in the cockpit but that they had not used it. Schweitzer told Major Slyman, his roommate in Aviano, that he had not used the video camera, but this was

later denied by Capt. Ashby during testimony. According to the prosecution, he lied to both, since Capt. Schweitzer had followed Capt. Seagraves on his return to Cherry Point to find out what he intended to do, as the only person to know about the tapes being changed.

In his conclusions, the US military prosecutor stated that the use of the video cameras and tapes had been well-planned in advance, since this was the last low-level flight over ideal ground for this type of filming, and that the purchase of at least two 30-minute 8 mm video cassettes had shown that the crew had intended to film the entire flight. Filming the flight was very important from a personal point of view for the pilots of VMAQ-2, since it was the last low-level flight scheduled in the last week of their stay in Italy. This importance can be deduced from the fact that the takeoff was delayed in order to obtain the 8 mm video cassettes forgotten by the crew in the ready room. According to the American military prosecutor, the video was the real reason for that flight.

There was also the intention to mislead the investigators. The crew knew that investigations would begin immediately after landing. The case of a new 8 mm video cassette was inserted into the video camera to replace the 8 mm tape which had actually been used, then the case was deliberately hidden in an attempt to mislead the investigators and make them believe that none of the video cassettes used had in fact been recovered.

Legal Services maintained that Ashby and Schweitzer had conspired to destroy the tape and had never informed anyone other than Seagraves why the contents of the video cassette had been hidden. This was of prime importance For the US prosecutors, they would never have destroyed the tape if it had not been incriminating. Why would they have destroyed proof which showed the attention they paid during the flight ? Why would they have destroyed evidence which would have shown they had turned off the video camera and carried out their job ? Why destroy the evidence that would have vindicated them ? Risking their lives, hiding the video cassette and later destroying it, they provided strong circumstantial evidence of their awareness of guilt. All these actions were designed to deprive the investigators of the evidence of their guilt. For the prosecutor, the tape demonstrated that the crew had violated the altitude limits. There was ample evidence that Ashby and Schweitzer conspired and indeed were able to obstruct the course of justice.

During this trial, certain statements by Capt. Ashby contained interesting information to confirm the real objectives of this particular mission. Ashby declared that he had always possessed a video camera ever since he joined his first unit, and that he probably had the best video camera in the entire squadron. He added that many people had borrowed his video camera to take it on various types of flight, low-level flights, refueling flights, flights to reach assigned objectives. And the videos were shown after they'd been made, in the ready room. There were no rules. There was no written rule, and not even a verbal rule concerning video cameras. From his first day in the squadron, he had always seen people taking cameras with them. The prosecution

itself stressed that when Major Daugherty interrogated a series of witnesses, he obtained a deposition – concerning flights on the AV047 course – saying that the valley could have served as the backdrop for a well-known advertisement. In short, the « fault » of Cermis was that it was in a spectacular and picturesque valley, like certain commercials: so much so that it earned the special attention of VMAQ pilots.

On 10 May 1999, after the trial, Capt. Ashby was found guilty, dismissed from the Marines and sentenced to six months in prison, while the prosecution had requested two. He was released five months later, on 13 October 1999, for good conduct.

PART IV

AN ATTEMPT TO ANALYZE THE RESPONSIBILITIES OF THOSE INVOLVED IN THE CERMIS AFFAIR

1. INTRODUCTION

While the previous sections of this report have illustrated the activities of the Committee, giving a critical overview of the voluminous and complex documentary material it has provided, this part will undertake to provide an overall reconstruction of the responsibilities involved.

This reconstruction in no way intends to bring into question the legal status of the acquittal of the two pilots by the competent judicial authorities of the United States, whose capacity to decide is in no way challenged, based as it is on the application of rules enshrined in international treaties. Nor is there any intention to call into question the consequences of such rulings, even as regards the responsibilities of the American chain of command. As to the ruling and its legal effects, the Committee is duty-bound to respect it, as is appropriate for the legitimate jurisdictional act of a foreign legal system.

The same position is adopted – although obviously in a different regulatory framework – concerning the findings established by the rulings of the Italian ordinary and military judiciaries concerning the responsibilities of the competent military personnel.

The assessments expressed here by the Committee are of a political nature, and do not intend to produce legal consequences but only to contribute to ascertaining the truth, in accordance with the intentions of the Chamber of Deputies expressed in the resolution establishing the Committee itself.

From this point of view, the attempt to reconstruct the events – especially in the case of the US pilots – should not appear contradictory.

Indeed, far from contradicting what has been stated above and far from being a merely academic exercise, this reconstruction has the exclusive aim of seriously and clearly performing one of the main tasks assigned to this Committee: to shed full light on the events, the causes and the responsibilities at all levels for the incident of 3 February 1998 in the municipality of Cavalese, involving the violent impact of a US aircraft engaged in a training flight with the Cermis cablecar system, which, by severing the cables, caused a gondola to fall to the ground, killing all twenty passengers on board (Article 1, Section A, of the resolution establishing the Committee)

2. THE RESPONSIBILITY OF THE AIRCREW

2.1 The nature of the aircrew's negligence

In view of the documents examined and the hearings conducted, the information acquired by the Committee enables it, within the

framework of the Italian legal system, to proclaim the responsibility of all the members of the crew in causing the mishap for the offences that the Italian public prosecutor's office of the Court of Trento had defined (pursuant to Article 81 paragraph 1 of the Italian Criminal Code [c.p.]) as concurrent counts of contribution to multiple negligent homicide (the joint effects of Articles 113 and 589 paragraphs 1 and 3 c.p.) and contribution to negligent endangerment of public transportation resulting in disaster (Article 432, paragraphs 1 and 3, and Article 449 c.p.).

The psychological attitude of the military personnel involved in mission EASY 01 can indeed be qualified in terms of negligence, both generic and specific (see Article 43, paragraph 1 c.p.).

The former offense would consist in not having observed normal rules of diligence, prudence and appraisal, flying at extremely low altitude and at high speed over inhabited areas. Such generic negligence is all the more evident when it is considered that it was a contact flight carried out in ideal weather conditions. To this should be added the fact that, since all the crew were experts, each with a considerable number of flight hours, a very different level of expertise, prudence and diligence could have been expected of them. Once it had been ascertained that none of them in that moment was subject to an incapacitating pathology (only Capt. Schweitzer had been classified as NPQ [not physically qualified] due to a long-term problem with kidney stones – see US Command Investigation Board – but neither before the mishap nor after did he appear to have complained of such problems or to have resorted to medical care), that there was excellent visibility that day and that the plane's altimeter (operating correctly, as was all the other instrumentation on board: the aircraft, it should be remembered, had been designated « safe for flight » before takeoff: see the chapter on the Trento trial) was deliberately not turned on (despite the fact that the NATOPS manual requires its use during low-level flight), it would certainly appear to exclude the possibility that they were not aware they were proceeding in a manner entirely in breach of regulations, as well as in conditions which were objectively hazardous in view of the particular environment – both in terms of nature and human settlements – over which they were flying.

Nor could such observations be invalidated by the alleged lack of recent training in low-level missions. In the 30 days prior to the mishap, the aircrew concerned had made the following sorties (as acknowledged by the Command Investigation Board on 10 March 1998):

Capt. Ashby, seven sorties, totaling 14.5 hours;

Capt. Schweitzer, 8 sorties, totaling 18.5 hours;

Capt. Raney, 11 sorties, totaling 21.9 hours;

Capt. Ashby, 6 sorties, totaling 10.7 hours.

It is true (see page 28-29 of the report of the Command Investigation Board on 10 March 1998) that Capt. Ashby had made his last

low-level flight on 3 July 1997, and so, like Capt. Raney, had made no low-level sorties in the six months leading up to the incident, while in the same period Capt. Schweitzer had made only two, of which only one as ECMO1, and Capt. Seagraves had made one (on 13 January 1998, before his deployment to Aviano). However, training is used only to maintain and/or improve the level of practical and theoretical skills of the crew while, in this case, their perception of the risk entailed in such senseless flight conduct (without there being the slightest mission justification) can only have been based on their acquired patrimony of knowledge and experience, considering the total number of flight hours of each of the crew members on board the EA-6B aircraft that day (see previous chapters). Indeed, precisely this lack of sufficient recent training in low-level flight should have encouraged them to act less carelessly.

Specific negligence, on the other hand, would consist in the manifest violation of orders, since the American airmen neither respected the flight plan in terms of course, altitude or speed, nor did they abide by ordinary safety regulations (all attributes of order and discipline). This, however, would tend to exclude any argument about a possible exemption with regard to the performance of a duty referred to Article 51 c.p., which, by its very nature and in the light of the Italian legal system, presupposes compliance with the legal order. In this instance, that legal order was intentionally disregarded.

In addition to the flight plan, the aircrew were shown to have violated:

the minimum altitude of 1000 feet imposed by the U.S. Marine Corps Order (T&R) for Prowler aircraft. This is a specific safety measure established by the American military authorities for training missions on aircraft such as the EA-6B;

the minimum altitude of 2000 feet prescribed for flights over the Trentino area by the 1st ROC Monte Venda message of 16 August 1997, published on August 29 in the FCIF of the 31st Fighter Wing; the fact that the records referred to as « Low Level SOP » used by the VMAQ-2 Squadron contained a navigation chart indicating the 2000-foot limit on the AV047 BD course enables us to deduce that this limit was known or could have easily been known by the American military personnel;

the minimum altitude of 1000 feet for winter flights, i.e. from 1 November to 30 April, and in any case over snow-covered ground, a regulation contained in the USAF MCI 11-F-16 message; there can be no doubt that the US military personnel were aware of this, as was also acknowledged by the Command Investigation Board. In fact, the documentation retrieved from the cockpit of the Prowler indicated these limits. This contradicts the statements of the aircrew to the Board that they were unaware of it;

the ban on overflying built-up areas (Cavalese, in the case in point) at a distance of less than one nautical mile;

the speed permitted over Italian territory, which was 450 knots at altitudes below 2000 feet, while at the moment of the mishap the aircraft was traveling at about 540 knots, equivalent to 1000 kph;

the SMA 175 message of 21 April 1997, which was intended to prohibit low-level training flights for the troops deployed in Italy for Operation Deliberate Guard; although the US Commander of Striking Forces South did authorize training flights for the Prowlers of the VMAQ-2 deployed at Aviano (which is mentioned in the Command Investigation Board's report), such a directive could never have had precedence over the agreement reached with the Italian authorities and reported in the aforementioned message concerning minimum altitudes;

the obligation to use updated maps, such as the Italian charts that were regularly delivered by the Italian Aeronautical Charts Information Center (CIGA) to the commanders of the 31st FW and which, unlike the American maps, indicated the Cermis cable car; it should be emphasized that US airmen were under no obligation to use only the American maps provided by the National Imagery and Mapping Agency (NIMA) of the US Department of Defense. If they had used the diligence required for the type of task they were carrying out, they should have compared the maps provided to them and noticed the greater accuracy of the Italian ones.

Obviously, the latter violation would not have had any causal role if (see below) the pilot had deliberately and rashly decided, from the outset of the mission, to pass beneath the cableway (which would demonstrate full prior awareness of the obstacle). The other violations are all causally sufficient to produce the mishap, particularly those concerning the flight altitude, since there can be no doubt that if the aircraft had kept to the altitude prescribed by regulations and specified in the flight plan, it would have been in an entirely safe position with respect to the cableway below.

Nor could the causal relationship between the conduct described and the mishap ever be considered suspended, pursuant to Article 41 c.p., by the fact that the cablecar suspension cables were not marked in such a way as to make them visible from a greater distance, since colored balls and other similar marker systems would clearly not have been perceptible earlier or more easily than the yellow gondola of the cable car, which the pilot of the Prowler was certainly able to see thanks to the ideal visibility conditions.

On the other hand, the aircrew would appear to be extraneous to the matter of the legitimacy of the authorization for flight EASY 01, since this mission was one for which, quite apart from any other assessment, the aircrew would be justified, in this case, as having performed their duty.

There appears to be no doubt that the aircrew – consisting of military personnel subject to a legal relationship of subordination – had every reason to consider the order to proceed with mission EASY 01 (in itself, obviously, in no way criminal) as fully in line with the service performed and legitimately received from their own superiors.

2.2. Willful negligence.

The specific and generic negligence of the entire aircrew would also appear to be aggravated by the circumstances regarding the foreseeability of the event pursuant to Article 61(3) c.p. More specifically, it would appear to have been a clear example of what Italian criminal law literature defines as *colpa cosciente* or *colpa con previsione* (approximately, willful negligence or willful misconduct), which is distinguished by the fact that the mishap, although not intentional, is nevertheless abstractly foreseen by the subject, who nevertheless proceeds in the conviction that he will be able to avoid it.

This is clearly a type of negligence which – however conceptually independent and separate – lies on a subtle borderline in legal practice with another psychological attitude: that of *dolo eventuale* (approximately, prospective intentional wrongdoing). In this case, the subject anticipates the occurrence of an event that is not the objective of his action, in the sense that there is the probability or even only the possibility that it will take place but – even without wishing the event to occur – he accepts the risk his action involves.

The fundamental difference between the two forms of subjective element is to be found in anticipation of the event. As the Court of Cassation has ruled on a number of occasions, in *dolo eventuale* the prospective occurrence of the event is so concretely possible that the subject – in desiring the action – accepts the risk, so that his volition can be considered to include the prospective event associated with the primary action. The acceptance of risk shall be considered to form part of the volition where the subject anticipates the wrongful event as certain or highly probable, in other words as a necessary or highly likely consequence of his own action.

In the case of *colpa cosciente*, on the other hand, it is clear that the event remains such an abstract hypothesis in the mind of the subject as to be no longer perceived as practically possible, perhaps because the subject counts on his own abilities to avoid it, meaning that it is in no way desired by him.

In the subject's perception of the concrete possibility that the anticipated event will take place, the realization that the event presents itself as objectively likely is not sufficient, since it is necessary to consider his real anticipation and volition, i.e. his reckless or negligent appraisal of the actual circumstances (see Court of Cassation ruling no. 6581 of 29 April 1989, hearing 15/07/1988).

On these assumptions, bearing in mind the imprudent appraisal of the level of risk in the places involved in the flight, it would appear reasonable to rule out the possibility that the pilot of the Prowler and the other members of the crew had perceived the impact with the cable car suspension cables as actually possible, assuming that – relying excessively on their own experience and skills – they felt that they would be able to avoid the mishap. Otherwise, we would have to assume that they would also have accepted the risk of losing their lives with the sole aim of descending below the prescribed flight altitude. The clear disproportion between the event desired and the events anticipated is so great as to exclude this hypothesis, also considering

the presence of more than one person on board the aircraft (acceptance of a real risk of causing a mishap is improbable in the case of an individual, but even more so in the case of four persons).

Confirmation of the view that the aircrew did not really fear they were heading towards a catastrophic accident is demonstrated by the fact that they took the video camera on board the plane. This would suggest they intended to film or photograph scenic views of the terrain along the flight path.

These conclusions appear to be well founded regardless of the three hypotheses that in theory could be formulated (see the chapter on the Trento trial) concerning the intentions of the pilot at the moment the plane approached the cable way: whether Capt. Ashby did not notice the cable car suspension cables, or whether, realizing there was an obstruction, he attempted an emergency maneuver or, finally, whether he had recklessly intended to pass under the cables from the beginning of the mission, it would be in any case appear that the aircraft should not for any reason have been on that course, at that height and at that speed, and that the distinction between the three hypotheses might be useful only to establish the degree of negligence (obviously higher in the third and last hypothesis, i.e. that of the foolhardy maneuver knowingly attempted as proof of skill and courage). The degree of negligence would, in turn, have been significant (pursuant to Article 133, paragraph 1(3), c.p.) only for the purposes of quantifying a possible sentence following a trial which, as mentioned, was not held in Italy because the United States declined to waive its priority jurisdiction.

2.3 The position of each member of the crew

The violations mentioned above would appear to be ascribable to the responsibility of each member of the crew.

We can rule out the possibility of mere concurrence of independent negligent actions, since all members of the crew were on the same aircraft, each fully aware of the dangerous actions of the others. There appears to be no doubt as to the extreme negligence of the pilot, Capt. Richard Ashby, who was personally entrusted with actually piloting the plane. As for the other members of the crew, it is necessary to distinguish between two hypotheses, which while they differ are basically similar in terms of the responsibility they involve. The first is that the other airmen on board the aircraft had caused or encouraged the pilot to violate the above-mentioned regulations, thus giving rise to a situation of *cooperazione colposa*, or negligent contribution by means of commissive conduct, in which there was a common desire not to comply with the restrictions on the mission. The second is that, through simple negligence, they did not apply pressure on their colleague to prevent him from continuing his reckless flight conduct.

The former hypothesis could be supported by the presence of a video camera, of a 35 mm cine camera, and of a camera on board the aircraft. A highly significant indication is that other, if not all, members

of the aircrew intended – as had often occurred on other flights – to take videos and photographs from the cockpit, whether to keep as souvenirs or to give proof of their daring and skill in flying at extremely low altitude through the Alpine valleys and mountains.

Although ignored by the Command Investigation Board, this observation appears by no means marginal and would suggest negligence of considerable importance, attributable in equal measure to all those who agreed with the decision to knowingly raise the level of risk of the flight in order to exhibit a souvenir and/or boast of daring and skill at a later date.

Nevertheless, there appears to be a significant degree of negligence even if the hypothesis is one merely of *cooperazione omissiva*, or omissive contribution. Even if the intention of flying at extremely low altitude was not shared by all the other members of the crew, and bearing in mind that under Italian law (Article 40 c.p.), violation of a legal obligation to prevent an event is equivalent to causing it, it appears undeniable that Capts. Joseph Schweitzer, William Raney and Chandler Seagraves were guilty of contributing to causing the mishap since each of them failed to carry out the specific tasks they were assigned.

In order to better understand the arguments expounded above, it should be stressed that the inquiries conducted revealed that, in at least three stages of the flight, there were serious violations of the flight plan and other regulations in force (see the chapter on the accident itself), so it would appear that we can exclude the hypothesis that the mishap took place due to an unforeseen initiative of the pilot alone, one so rapid and unforeseeable as to prevent the others from intervening in time to return the flight to its regular course. On the contrary, the continual violations throughout most of the flight and the absence of any emergency communication from the plane to the control tower before impact with the cablecar suspension cables appear to rule out the hypothesis that everything happened suddenly and/or without there being the possibility of effective intervention by the other members of the aircrew.

Considering that the NATOPS manual specifies that each member of the crew shall perform their duty with a spirit of shared responsibility, and that personnel acting as ECMOs are obliged to be constantly aware of the state of the aircraft and the operating environment, as well as to intervene with the pilot should there be a risk of collision, it appears undeniable that negligence equivalent to that of Capt. Ashby is also attributable to Capt. Schweitzer, who was present as the first electronic countermeasures officer (ECMO1) and, in such a position, was also responsible for re-plotting such sections of the flight plan as may have been required during the mission. He was also responsible for navigation, as well as for the navigation and communication systems, with the obligation to assist the pilot with weapons (not relevant in this case) and to assist him in lookout routing, considering the limited visibility from the pilot's seat.

In short, the ECMO1 can be considered responsible for the way the entire mission is carried out.

Nevertheless, although he had the authority, responsibility and effective opportunity (he was sitting right next to the pilot), Capt. Schweitzer failed to prevent Capt. Ashby from disregarding the flight plan and the minimum altitude limits so markedly and so repeatedly.

The same holds is true – with a degree of negligence which is still significant in criminal terms and is substantially the same – for Capts. William Raney and Chandler Seagraves, who were present in the posts of ECMO2 and ECMO3, with responsibilities for pre-flight preparations and, during the flight, for assisting the pilot in identifying dangers to the flight.

In essence, Capts. Raney and Seagraves would appear not to have fulfilled the principle task they had been assigned, ie. identifying threats to the safety of the flight, even though the blatant difference between the prescribed and actual height and speed was certainly so great as to make the degree and nature of the risks perfectly evident. This means that, since it was clear that the plane was proceeding at extremely low altitude and, at the very least, already deviating from the flight plan, ECMO2 and ECMO3 should have deduced from that the fact they did not hear the acoustic alarm signal that the altimeter was not functioning. They should therefore have pointed this out to their two colleagues sitting in front of them in the cockpit (from their position, ECMO2 and ECMO3, like ECMO1, were not able to see the RadAlt, but the helmets of all the crew members were equipped with the acoustic signal that sounds as soon as the plane descends below the set height). The fact that they did not do this would suggest there is no explanation other than that they were aware the RadAlt had been intentionally disabled or that all of them had decided to ignore the acoustic alarm signal, which would be equally serious in terms of responsibility.

Furthermore, the fact that the crew members were all of the same rank, albeit with different duties within the mission, rules out the possibility that any of them had failed to intervene out of fear of a superior officer.

Finally, the line of defense adopted by the crew members during the administrative inquiry and the court martial in America is obviously utterly insufficient to absolve them of the responsibility asserted here, since the above arguments provide sufficient demonstration that it is inconceivable that they could not have known the regulations concerning the minimum altitude or that the altimeter did not work, or that they were not able to perceive the dangerousness of their flight conduct.

3. THE AMERICAN CHAIN OF COMMAND

3.1 The Marine Corps

Internal disciplinary inquiries

An examination of the responsibilities for the tragedy cannot be confined solely to the conduct of the crew of EASY 01. The very

circumstances of the event raise questions that involve the entire American chain of command.

In this regard, an examination of the records of the courts martial held in the United States provided the Committee with invaluable unpublished information concerning the case and made it possible to reconstruct the initial reactions that the tragedy provoked within the Marines Corps.

On 5 February 1998, two days after the accident, Major General M. D. Ryan, then Commander of the 2nd Marine Fighter Wing, and thus the direct superior of the VMAQ-2 Squadron deployed in Aviano, called a meeting of all the officers of the VMAQ squadrons then present at Cherry Point, the headquarters of Marine air operations. Facing more than 75% of Prowler pilots, the general read the headlines and negative comments of the newspapers concerning the Cavalese tragedy. This was the beginning of a dramatic encounter, described by one of the participants as « shock therapy ». Commenting on the incident, he stated that two facts were clear: the flight plan established a minimum altitude of 2000 feet and at the moment of the mishap, the plane was flying at an altitude of less than 1000 feet. According to the general, there was no possible explanation for the fact, except that the crew had intentionally been flying acrobatically and at low level (« flat-hatting »), consciously violating regulations. The general went further: he explicitly accused the entire community of Prowler pilots of being known for not respecting the rules and for reveling in low-level flying. He announced in front of his men that he would start an internal inquiry to discover all those who had violated the rules and get rid of them.

It would seem, therefore, that the general did not consider the Cermis tragedy to be the result of an isolated or occasional episode.

The general went beyond mere words: the following day he relieved Lieutenant Colonel Steven Watters from command of the VMAQ-3 Squadron, the group of Prowlers deployed in Aviano in 1997, later replaced by VMAQ-2. The reason for this severe decision was a report that, with a sense of timing that was hardly coincidental, the legal officer of VMAQ-3 sent Gen. Ryan, in which the Squadron Commander was accused of misconduct in flight. After relieving Lt. Col. Watters of his command, the general started an administrative inquiry into the facts reported. This was entrusted to his assistant, Brig. Gen. William Bowden. During this inquiry, a video registration was found of a low-level flight of a Prowler based at Aviano that had taken place on 3 April 1997. The recording shows that the flight clearly contravened OPNAV regulations: the aircraft concerned was flying too low over inhabited areas and was flat-hatting in mountainous areas. The course taken by that Prowler was AV047, the same as the mishap flight of February 3, 1998. One of the aircrew on flight was the squadron captain, Lt. Col. Watters, who took no action to prevent or correct the pilot's misconduct.

The administrative inquiry also shows that the day after the Cermis tragedy, Lt. Col. Watters summoned all the officers in his squadron to a meeting. The aim of the encounter was to inform all those present

of the mishap and its consequences. But at the end of the meeting, the commander made a recommendation to his men: if any of them had copies of video recordings of low-level flights, they were strongly encouraged to make them disappear. According to Gen. Ryan, these statements were unbecoming an officer and gentleman, especially in consideration of the status of commanding officer and of the importance of the meeting at which they were made.

For this reason, and for the omissive conduct during the flight of 3 April 1997, Lt. Col. Watters, at the end of the disciplinary proceedings against him in April 1998, was punished with 14 days confinement to barracks, a penalty of $ 2,472 per month docked from his salary for two months, and the obligation to hold a conference in each of the VMAQ squadrons on the « lesson » learned and on how to avoid such situations in future.

In the following days and weeks, Brigadier General Bowden carried out another administrative inquiry on behalf of Major General Ryan into the conduct of the Prowler squadrons deployed at Aviano.

During this inquiry, he questioned all the officers – after reminding them of their rights in as much as they were suspected of violating their orders – on their flight conduct during the period in which they had been deployed at Aviano.

The investigation concentrated on ascertaining what negligence there may have been on the part of the VMAQ-2 supervisors and their bearing on the mishap. As a result, four officers of that squadron – the Commander, the Executive Officer, the Operations Officer and the Safety Officer – were disciplined. The hearing was held on 6-8 August 1998, judged by Lt. General Pace, commander of Marine Forces Atlantic.

Following the hearing, the Safety Officer – Maj. Max Caramanian – and the Squadron Commander – Lt. Col. Muegge – were found guilty of dereliction of duty for the way in which the information concerning the flight restrictions was (or rather, was not) made known to the VMAQ-2 pilots. As a result, Muegge was relieved of his command.

The episodes referred to above are mentioned in the documentation presented to the court martial by Ashby's defense. They are not admitted as evidence but were in any case attached to the case records. The documentation refers only to the outcome of the inquiry and does not throw light on activities carried out during the administrative investigations. In relation to the declarations by Maj. Gen. Ryan, there are a number of sworn statements by those who were present at the meeting. The proceedings against Lt. Col. Watters are documented in the disciplinary punishment report signed by Gen. Ryan himself.

Through the Rome Embassy and during a visit to the Pentagon on 20 November 2000, on the basis of these findings, the Committee made a formal request to the government of the United States to obtain a complete copy of the documentation concerning the disciplinary proceedings resulting from the Cermis mishap, and to hear Gen. Ryan and Gen. Bowden directly.

None of the Committee's requests were granted, on the basis of the argument that such records were non-admissible.

This prevented the Italian authorities and the public from obtaining information of clear interest for the overall reconstruction of responsibility for the tragedy and, probably, for the drafting of regulations and procedures that would prevent other such events in the future. The decision to withhold information about the full results of the inquiry into the behavior of air units deployed in Italy also makes it possible to presume that, in the absence of other motives, there are serious reasons for embarrassment for the Marines Corps concerning the conduct of its pilots.

Although incomplete, the information acquired by the Committee, assessed together with the data already in the possession of the Italian investigating authorities, does in any case make it possible to state some certainties concerning the flight conduct of the pilots deployed at Aviano and about their commanders. The most striking statement in terms of its content, context and, above all, the rank of its author is undoubtedly that of Maj. Gen. Ryan, an officer at the highest levels of Marine Corps aviation, according to which the Prowler pilots are known to be undisciplined and tend to carry out low-level flights in contempt of the regulations. That these statements are neither artificially or emotionally exaggerated, dictated by anger in the heat of the moment, can be inferred not only from the level of character which must be presumed in a high-ranking officer with such an important post, but also from the Watters affair. As stated, the commander himself of the Prowler squadron deployed at Aviano took part in one of these « low-level hot-dogging flights » over the mountains, without respecting flight safety regulations. It was no accident that this occurred on AV047: this route took aircraft over some of the world's most beautiful and spectacular mountains, as confirmed by the pilots themselves during the court martial. They were so beautiful as to be worth immortalizing on video to take back home (the VMAQ-3 meeting called by Watters took place at the Cherry Point base in North Carolina). The fact that Watters felt the need to ask the men in his squadron to get rid of all the videos of those flights means at least two things: first, that there was more than one video, involving a number of flights. Watters would not have exposed himself in front of the entire squadron with a request « unbecoming an officer » if he had only intended to obtain the video of his flight of 3 April 1997. He could simply have approached the author of the video separately or, at most, the other three members of the crew on that flight. Secondly, it means that the flight conduct shown by those recordings was patently and deliberately irregular, as can be seen in the video that – unfortunately for him – Watters was not able to dispose of in time.

It is therefore no coincidence that the crew of EASY 01 also used a personal camera and video camera during the flight and then erased the recording. On that route, the use of cameras was customary among the crews and, probably, one of the reasons for violating the regulations establishing the minimum flight altitude.

It can thus be stated with certainty that the conduct of the crew of flight EASY 01 was not an isolated episode of intentional violation of flight safety regulations by the Marine aircrews deployed at Aviano in those years.

This leads to questions about the joint responsibility of the direct commanders of the aircrew which caused the incident and, in more general terms, about the effective ability of the American chain of command to exercise control.

3.2 The VMAQ-2 Squadron

Failure to distribute FCIF 97-16.

The Committee learned that, as indicated above, the Commander and the Safety Officer of VMAQ-2 were found guilty and punished by the Marine Corps for not having distributed the necessary information on flight restrictions to the squadron. Even though it does not have access to the full findings of the administrative inquiry, it is clear that this refers to the failure to distribute information to the pilots about the ban on flying below 2000 feet over the territory of Trentino-Alto Adige issued by the Italian authorities on 16 August 1997 and published in FCIF 97-16 (Flight Crew Information File) of the 31st FW, dated 29 August 1997.

The investigation carried out during the administrative and criminal proceedings in the United States established that VMAQ-2 did not take into the slightest consideration this flight restriction over Trentino-Alto Adige in the planning and execution of flights. From August 1997 to the date of the mishap, the flights of this squadron on route AV047 (the most commonly used for low-level flight) were always planned for 1000 feet, as admitted by Lt. Col. Muegge himself, who flew AV047 three times ignoring the restriction. According to the statements made during the various trials, neither the Squadron Commander, nor the Safety Officer, nor the VMAQ-2 pilots (with one exception, it appears) were even aware of the existence of FCIF 97-16.

It is reasonable to have serious doubts about the truthfulness of these statements by the squadron members, for they appear more as attempts to help fellow servicemen on trial, as well as being a form of self-defense in the disciplinary proceedings, since it came to light only after the Cermis disaster, that the entire squadron, including the Commander, had been violating that regulation for months.

Indeed, a number of elements indicate that the squadron was (or should have been) aware of the restriction. First, as Fallon, the investigator in Ashby's trial testified, two navigation cards indicating the 2000-foot limit imposed under FCIF 97-16 were found on the aircraft that carried out mission EASY 01 (one on the front seat and one on the rear seat). It may be that the navigator used different maps or interpreted that limit as not binding or solely as part of a general policy, as testified by the Executive Officer of the squadron, Maj. Slyman. But it would hardly be reasonable to talk of ignorance. All the

more so because Col. Rogers, commander of the operations group of the 31st FW based in Aviano, testified in detail about the initiatives taken to circulate the information to all the units deployed in Aviano in August 1997. The document was sent to all the units and was taken up in the subsequent weekly meeting, at which the operational chief of the 31st FW informed all the units based in Aviano about the new restrictions.

The Marines, however, proved to be less than diligent in collecting information about the Italian flight theater: indeed, it was shown that, unlike the other units stationed at Aviano, they were often represented by a low-ranking officer at the briefings and their mailbox, which was used to send them the various notices, was not checked regularly.

In the best of circumstances, therefore, VMAQ-2 and in particular its Commander, Lt. Col. Muegge, must be considered to have acted negligently, paying little attention to the receipt and distribution of information concerning the flight regulations in force in the country where they were stationed, if not of having ignored them completely. As can be seen in a general examination of the trial information, the Marines felt themselves to be independent and separate from the rest of the airmen (American and non-American) based in Aviano.

It should however be emphasized that this conduct of the Commander of VMAQ-2 and, in more general terms, the inadequate circulation of information, in no way diminishes the responsibility of the crew of EASY 01, who quite certainly were aware of the 1500-foot limit over built-up areas and of the general 1000-foot limit for Prowlers, both of which they violated by a considerable margin.

Planning EASY 01.

Although Lt. Col. Muegge paid for not having distributed all the information by being relieved of his command, this does not appear to be the most serious breach of regulations that can be attributed to him.

Lt. Col. Muegge was the commander of a small group of pilots (less than a dozen) and was a pilot himself. As such, he could not have been unaware and in full control of the attitudes and flight conduct of the members of his squadron. Here we are not referring to the technical control of conduct in flight, which can be (only partially) effected using technical instruments such as radar, but to the qualities typical of commanding officers, which also demand a certain degree of awareness and control over the private lives of subordinates, especially when deployed abroad on combat missions.

The use of private video recording equipment during missions is not something that can escape the notice of the commander of such a small group, even if only because such equipment was used for the prime purpose of showing others what had been seen (and done) during flights. The trial proceedings referred to above show that it is reasonable to consider that such equipment was regularly used by the pilots – and by their commanders – without any attempt at conceal-

ment. As an example, the use of a video camera on mission EASY 01 was noted by at least three corporals who testified: Cpl. Cottrell referred to the delay in turning on the aircraft engines, while waiting for the two video tapes which were rushed to the crew by Cpl. Packman and Cpl. Ransom. The use of this equipment, even though not expressly prohibited, certainly constituted a hazard for low-level contact navigation (i.e. looking at the ground – looking at the map, and vice versa), which is very difficult to carry out if one is concentrating on filming or taking photographs. And yet it would appear that Captain Muegge never reacted in any way to such conduct.

Apart from flight safety, there is another aspect concerning the use of recording equipment which makes such conduct even more alarming. AV047 was one of the three routes available to the squadron for low-level flights. Of these, it is the only one in a mountainous area and thus, at Lt. Col. Muegge himself explained, it is also the easiest, since the greatest difficulty in low-level flying is orientation and the recognition of reference points on the ground.

Nevertheless, this route is also one that provides superb scenery, which can then be shown to friends at home (as done by Muegge's unfortunate predecessor, Lt. Col. Watters). And it is by far the most commonly used route for low-level training flights, the decision being made by the Squadron Commander. One therefore wonders just how useful such training flights were to pilots who were so interested in the landscape. These doubts become all the greater if we consider mission EASY 01 in particular: the pilot, Ashby, had recently been selected for promotion as an F18 pilot. In ten days his detail period in Italy was to come to an end and he was to return to America for training on F18 aircraft, which are completely different. He had carried out his last low-level training flight with the Prowler just over six months previously.

The navigator, Schweitzer, had carried out his last low-level flight just over three months before, and thus did not need any further training.

The Operations Officer of the VMAQ-2 himself, who gave evidence at the Ashby trial, admitted there had been no priority for low-level training flights for Deliberate Guard. They were carried out in the redeployment zone only to maintain the special skills of the pilots, in order not to have to start special training again in America.

One flight every six months was the standard established by the Marine pilots' Training and Readiness Manual.

Neither the pilot nor the navigator thus needed special training.

If it was neither an operational nor training flight, what then was the purpose of EASY 01 ? The explanation may possibly be found in the video camera, which it should be noted contained two tapes, and in the camera taken aboard by the crew in a most nonchalant manner: much evidence would suggest that this may have been a « bonus flight » granted by superiors to a colleague who was leaving for a promotion and who was thus gratified with a last chance to take home a unique souvenir.

A further query arises at this point: was the souvenir simply a video of the mountain scenery – or was it also that of a stunt, some sort of test of ability to brag about with his comrades-in-arms ? This question is prompted by the Watters case: less than one year previously, on the same route, the Commander of the Prowler squadron deployed in Aviano, before VMAQ-2, filmed a very low-level flight for which he was later punished. After the Cermis tragedy, he encouraged his men to get rid of any similar tapes.

It should be borne in mind that the tapes did not only contain bucolic scenes of the Alps, but were kept by those who made them to brag to their colleagues. The invitation by Lt. Col. Watters was targeted at pilots who had returned to the United States months earlier, since he was well aware how many tapes there were in circulation and what they contained. Otherwise, why should they not have been shown to Gen. Ryan when he bluntly reprimanded them for being a bunch of undisciplined daredevils ?

Similarly, the first thought that crossed the minds of Schweitzer and Ashby, immediately after their emergency landing at Aviano, was to get rid of the two tapes made during the flight and replace them. There can only be one explanation: they contained proof of their improper and rash conduct. Since the situation had gone awry, they had to be disposed of immediately.

There are also some indications that the « skill test » to be recorded – at least in the tragic flight that led to the disaster, but possibly in other cases as well – actually involved the Cermis cableway. First of all, there was the phrase by the navigator, Schweitzer (which he himself quoted during the Ashby trial) who shouted that the target was in sight. But what was the target of that flight ? There was no set target; just reference points chosen by the crew. Is it reasonable to believe that the VMAQ-2 pilots – and those pilots in particular, who had frequently flown at low level on that route – were unaware of the cables crossing the valley ? And that the target was precisely those cables ? As their Commander, Muegge, said, all the pilots knew there were ski resorts on that route. Perhaps they had even gone skiing there.

Last, the flight conduct of the crew in the moments immediately prior to the incident also suggest they were aware of the cableway: after entering Val di Fiemme, they pushed the plane to the maximum speed technically possible (540 knots) – well above the 420 knots authorized – and went into a rapid descent (at 2400 feet per minute), which brought the plane to an altitude (357 feet) 65% below the minimum authorized altitude for Prowlers under any circumstances. This was an almost incredibly reckless maneuver, one that can only be explained if there was a conscious attempt to pass under the cablecar suspension cables. The attempt failed only because the gondolas were passing at that moment, thus lowering the level of one cable.

The impossibility of obtaining the results of the Marine Corps inquiry and hearing the officers who conducted the investigation, due to lack of cooperation by the Americans, has prevented the Committee from clarifying the serious doubts surrounding the reasons for the way the flight was conducted. We are thus unable ascertain the effective

existence of a « cableway club » in VMAQ-2, as was suggested at the American court martial. But, when considered together with the documentation already available to the Italian investigators, the information gathered by the Committee makes the hypothesis anything but implausible.

Lt. Col. Muegge's conduct and leadership cannot in any event be free from grave censure. He proved himself to be an inadequate commander, whether he only acquiesced to the irregular flight conduct of his pilots, or participated directly in the disastrous action of EASY 01 by planning a « bonus flight » in the guise of a training flight, regardless of whether he may have known of the existence of a « cableway club ». His inability to command and control the men, even if he was not in complicity with them, certainly played an important role in causing the Cermis tragedy.

The large body of evidence pointing to reckless or, at the very least, extremely negligent conduct on the part of the Marine squadrons deployed at Aviano and their commanders also lead to queries about the effectiveness of control in the chain of command and about the control of such units.

3.3 The 31st Fighter Wing of the US Air Force

It should be pointed out immediately, with an emphasis at least equal to that used so far to highlight the negligent conduct which led to the tragedy, that the pilots of the 31st Fighter Wing of the US Air Force have never engaged in flight conduct comparable to that of the units deployed at Aviano. The fact of being deployed in Italy, forming part of a clearly defined chain of command and being informed and aware of local flight regulations, ensured that no problems of any nature arose concerning the flights of this unit.

The 31st FW was charged with providing assistance to the flight units based there, including the Marine VMAQ squadrons. This assistance included briefing and updating on local flight regulations. This duty was performed by means of the distribution of updates in the internal mailboxes of each unit, as well as weekly meetings at which the latest information was disseminated and special attention was paid to the most important changes. The commanders of each NATO unit deployed at the base were invited to the meetings.

FCIF 97-16 was distributed through this system, although testimony showed that most of the VMAQ-2 pilots remained unaware of it. It is clear that the way in which the information was disseminated was inadequate. On the one hand, it should be noted that, unlike other units, the VMAQ squadrons generally sent a lower ranking officer to the weekly meetings. On the other, as has already been stated, it appears that the mailbox of this unit was regularly full of uncollected documents. This further confirms that the squadron, which was only passing through Italy, demonstrated little interest in local rules.

Responsibility for this can only partly be attributed to the senior officers of the 31st FW (Brig. Gen. Peppe, Commander, and Col.

Rogers, chief of the operations group). They had no command authority over the deployed units, not even to ascertain if the information provided during the weekly meetings was being distributed. In other words, they had no control over flight conduct or the internal organization of the other units.

Even in this context, there was possibly room for a less bureaucratically passive attitude: a call for more effective participation at the meetings or, at the very least, collection of information from the mailbox, might nevertheless have been considered part of the responsibilities of those in charge of the 31st FW and might have prevented ignorance (or the alibi of ignorance) of FCIF 97-16.

3.4 Commander Striking Forces South (COMSTRIKEFORSOUTH)

During the period of deployment at Aviano, combat command (COCOM) of VMAQ-2 was held by the Commander of the Marine Corps Forces Atlantic. Operations control (OPCON) was transferred from this Commander (specifically, through the Commander-in-Chief US in Europe, the Supreme Allied Forces Commander in Europe – SACEUR-NATO – the Commander in Chief Allied Forces Southern Europe – CINCSOUTH-NATO) to the Commander Striking Forces South – COMSTRIKEFORSOUTH – while tactical control (TACON) was delegated to the Commander of the 5th ATAF for « Deliberate Guard » missions, including training flights related to this operation.

As regards training to meet needs other than those of DG operations, missions with different objectives were authorized by COMSTRIKEFORSOUTH, although DG missions had priority and were not to be interfered with. Non-DG mission planning (including functional checkflights, training flights, etc), to be carried out in accordance with the T&R Manual, were approved by the Squadron Commander (Lt. Col. Muegge).

It should be recalled that, during its deployment, VMAQ-2 had carried out 69 training missions (out of a total of 254, of which 164 related to DG operations); of these, 11 (out of 23 scheduled), including mission EASY 01 of 3 February 1998, had been carried out at very low level. The other 12 had been canceled due to adverse weather conditions or the unavailability of aircraft.

As ascertained by the CIB (the DeLong Commission), the Marine squadrons stationed in Aviano, such as VMAQ-2, were under the command of COMSTRIKEFORSOUTH for non-DG training, but this Commander did not monitor how training missions were carried out on a day-to-day basis, nor did he provide any regulations or guidelines concerning the training. The CIB added that the non-NATO (i.e. national) chain of command and control was complicated and slow to react, although it had not caused the accident.

As we have seen (and as the CIB did not fail to point out), there are a number of doubts about the effective utility of the EASY 01 mission, especially considering that the pilot, who was about to be assigned to a different type of aircraft, would almost certainly have

never flown again on the EA-6B. As a result, some concern might have arisen about the possible effectiveness, continuity and correctness of the control exercised by the Squadron Commander and by the immediately superior command. This is because a training program is normally based on criteria and guidelines drawn up by superior bodies, which ensures that the aims, objectives, content, types of flight, and their allocation and priorities, etc. are all taken into consideration. And it is normal (since this, in particular, is one of its principal tasks) for a command above the squadron level to carry out regular checks into the way a certain program is carried out, to assess and verify its suitability and effectiveness, and to suggest means to make the training more productive.

As regards the chain of command, which was deemed complicated and cumbersome, the CIB provided no clarification concerning the relationship between the VMAQ-2 Commander and COMSTRIKEFORSOUTH in national terms. The fact that this chain demonstrated weaknesses in the linearity of command relationships was confirmed by the CIB itself, which drafted a specific recommendation concerning the creation of a chain of command which would provide for operational control of the USMC squadrons deployed in support of NATO operations. This was intended both to clarify and unify command authority and responsibility for non-NATO missions and for training in the theater. This would parallel procedures adopted by other services.

The Tricarico-Prueher Commission also pointed out that the command and control relationships prior to the accident were complicated and somewhat unclear: they may have helped create an environment in which there was insufficient emphasis on the need to become familiar with and abide by the established flight procedures. In particular, it was ascertained, again before the accident, that although the VMAQ squadrons stationed in Aviano came under COMSTRIKEFORSOUTH in the NATO chain of command, this command (despite being assigned to a US general) was responsible for supervising NATO assignments within the framework of Operation Deliberate Guard (and thus had no responsibility for non-DG training flights by US aircrews). Nevertheless, it was not responsible, at least formally, for all the activities connected with the responsibilities of each national military unit, as this was the responsibility of the US Commander in Chief Europe (CINCEUR), who in turn delegated command to subordinate levels along a chain of command that differed in part from that of NATO. This command structure was not sufficient to ensure adequate surveillance.

The successive delegations of authority along the US chain led to a reduction, if not a complete breakdown, of control by the USMC commands above VMAQ-2. It can thus be argued that excessive discretionary powers were delegated to the Squadron Commander concerning training decisions not specifically related to operations in Bosnia and in evaluating the need for or advisability of training missions.

At the same time, it seems unusual and unconvincing that the authority which wielded operational control, as was the case for COMSTRIKEFORSOUTH, was not aware of the training program that the Squadron Commander intended to implement and that was actually under way. It is all the more difficult to comprehend considering that COMSTRIKEFORSOUTH was also responsible for authorizing training missions.

It is thus possible to subscribe to the opinion of the CIB that COMSTRIKEFORSOUTH did no more than authorize non-DG training missions without examining the substance of the missions and without issuing directives. In this view, COMSTRIKEFORSOUTH simply issued a general authorization for non-DG training, meaning that, at that particular time, there were no overriding DG priorities and thus the aircrew and the aircraft involved could be removed from NATO operations to carry out other duties. In this case, there remains the question as to the identification of another authority above VMAQ-2 in the US chain of command in the Marine Corps Forces Europe or even the Marine Corps Forces Atlantic.

In this regard, the findings of the Tricarico-Prueher Commission, according to which the responsibility for US activities (including training flights) lay with the US Commander in Chief Europe (CINCEUR) seems highly plausible. The officer in question at the time was the Supreme Allied Forces Commander in Europe (SACEUR), Gen. Clark.

The series of delegations of command authority and the distinction between the control and command functions of the US and NATO chains of command effectively left the Marines deployed at Aviano with considerable and unique autonomy of action, without effective control over their activities. Unfortunately, as we have seen, the squadrons took considerable advantage of this situation.

4. THE ITALIAN CHAIN OF COMMAND

4.1 The chain of command at Aviano and the COA/COM of Martina Franca

Since the base at Aviano is subject to Italian sovereignty and command, just as sole responsibility for air traffic control throughout the country is Italian, it is logical that this report should examine the conduct of Italian military authorities concerning flight EASY 01.

Both the criminal proceedings which involved the Italian chain of command – one held by the Military Court of Padua, the other by that of Bari (see related sections) – concluded with requests for dismissal from the examining magistrates, who followed two different, albeit far from incompatible, lines of approach.

In fact, the examining magistrate of the Military Court of Padua focused on the technical argument that the oft-mentioned SMA 175 of 21 April 1997, which prohibited low-level training flights for troops stationed in Italy for Operation Deliberate Guard, did not contain an

« assignment of responsibility » as referred to in Article 117 c.p.m.p. This consideration was fundamentally inclusive of the question concerning the nature of the note, communicated for information purposes only to the base commander at Aviano, who at that time was not yet Col. Durigon. The examining magistrate at the Military Court of Bari emphasized that SMA 175 could not be considered to have imparted mandatory instructions so far as the COA/COM chief of Martina Franca was concerned, signifying that criminal responsibility could not be asserted. He also added that it could not be qualified as a formal assignment of responsibility given individually to Lt. Col. Carratù, as the subjective element of the offense (in other words, the awareness of having been assigned a responsibility) was lacking. All the same, it is reasonable to argue that it would appear technically more precise to speak of a lack of the objective element of the criminal offense in point, rather than of a lack of the subjective element, given the particular legal concept of « assignment of responsibility » in the Military Criminal Code.

Nor do the opinions expressed by the examining magistrates of Padua and Bari diverge concerning the nature (prescriptive or otherwise) of SMA 175 of 21 April 1997, in view of the fact that the former – who makes only brief mention of the issue – nevertheless stated that the communication for information purposes only, even though not involving an assignment of responsibility pursuant to Article 117 c.pm.p., nevertheless entailed the obligation for all recipients to apply the regulation concerning low-level flights (see below).

For both judicial authorities, the key issue was that no violation of Article 117 c.p.m.p. could be ascertained, in view of the fact that neither the commander of the Aviano base, Col. Durigon, nor Lt. Col. Carratù of COA/COM of Martina Franca, had been assigned a « responsibility », since the communication of SMA 175 on 21 April 1997 could not be considered as such.

The case can be more clearly expressed by recalling that the assignment of a responsibility – in the formal legal sense used in Article 117 – must be specifically conferred *ad personam*, with the delineation of the time, the context, purposes, procedures, manner and activities required of the assignment. The performance of an obligation connected to the functional position of an individual serviceman is quite another matter (even if an immediate and *erga omnes* prescriptive nature is attributed to SMA 175).

Consequently, bearing in mind the principle of the strict application of criminal norms, which rules out analogical extension, it can only be agreed that Article 117 was not applicable in the case in point, neither in the case of Col. Durigon, nor that of Lt. Col. Carratù. Other offenses provided for by the Military Criminal Code (insubordination, dereliction of duty, etc.) were not applicable either.

Nor can it be argued that a different formulation of Article 117 or other provisions of the Military Criminal Code would have made it possible to prevent (through the discouragement implicit in the punishment provided for by law) or to punish more adequately the conduct found in this case: however much room it leaves for improvement, the

current system of criminal sanctions was and is certainly adequate (leaving aside the general obsolescence of the code, which regards various aspects of the issue). Conversely, an extension of the scope of the norm so as to cover any form of violation of the functional duties of a serviceman would be difficult to propose, both from the point of view of criminal law policy (since it would be excessively and indiscriminately repressive) and from the point of view of constitutional legitimacy, since the provision would cease to be a « blank » criminal regulation to be applied to a specific case and become absolutely indeterminate and, as such, violate the principle of *nullum crimen sine lege*.

It is worth examining the matter more closely: the Cermis tragedy was not a matter of deficiencies in criminal law, but rather matters of a different order. In other words, a broader range of possible actions in court would not have affected the crux of the problem which emerged from the work of this Committee. This principally concerned: the attribution of jurisdiction between the sending State and the receiving State, which is an aspect of international law; the effectiveness of the powers of the Italian military commander of the bases used by the United States in Italy; and last, Italy's tendency to acquiesce to American initiative (see below).

Other responsibilities in the Italian chain of command cannot be attributed, not even as regards the prescriptions of the Criminal Code which punish negligent homicide and negligent endangerment of public transport – the charges advanced by the prosecutor in Trento against the American servicemen: although flight EASY 01 violated the provisions of SMA 175, this was not itself sufficient to cause the mishap without the irregular flight conduct of the aircrew, which was itself decisive. Conversely, even if the planned altitude of the flight had been greater than 2000 feet, in accordance with SMA 175, this would not have prevented the reckless conduct of the crew, also bearing in mind what appears to have been the negligent tolerance of their commanders (see above).

In other words, neither the conduct of the base commander of Aviano, nor that of the head of the COA/COM of Martina Franca had a causal or contributory relation with the tragedy. This explains why the Trento prosecutor did not also bring charges against Col. Durigon on the basis of the initial hypothesis of contribution to multiple negligent homicide and negligent endangerment of public transport, preferring the less serious charge envisaged under Article 117 c.p.m.p., and later referring judicial examination to the Military Court of Padua.

The negligence to be attributed to Col. Durigon appears to be of a very different nature. As mentioned, it was precisely the lack of real operational powers of the commander of Aviano to prevent the flights which makes it impossible to identify any feasible actions that might have prevented the mishap. It is clear that this was an indispensable logical step for any charge of criminal liability for negligence. In fact, the Grosso Committee on the reform of the Criminal Code, which sought to implement the best trends in jurisprudence and doctrine, also stress its importance.

Nevertheless, this does not justify the inaction shown by the Aviano base commander.

The purpose of SMA 175 was explicitly to minimize the socio-environmental impact of low-level flights. Some authorities were direct recipients for action, while others – including the Aviano commander and the head of the COA/COM in Martina Franca – received it for information purposes only (with addresses « to » and « info » respectively). But communication for information purposes only has by its very nature a minimum content which cannot be considered as no more than an end in itself, since every report, by its very nature, is designed to ensure that the recipient bears it in mind in the execution of his ordinary professional duty. A more limited interpretation would totally debase that particular form of address, in practical terms making the choice of recipients for the information totally irrelevant.

This casts a different light on the importance of whether the note in question was of a prescriptive nature or not. In fact, it is almost a false problem since, in line with the text of the order dismissing the case issued by the examining magistrate of the Military Court of Padua, the recipient « for information purposes only » also has an obligation to observe the measures communicated to him. In other words, a recipient for action and a recipient for information purposes have the same obligation, meaning that both were to take account of the restrictions on low-level flights limits in their actions. The sole difference that while the former has to take immediate and unreserved action to implement all such initiatives as may have been appropriate to ensure compliance with provisions of the message received, referring to his superiors if necessary, the latter was under an obligation to take action only at such time as the occasion might arise; in other words only if (see the case of Col. Durigon) he had received a DFS which did not comply with the restrictions, as in the case of EASY 01.

On the basis of this premise, message SMA 175 was sufficient to oblige the commander at Aviano to make a report, if nothing else, to the Italian Air Staff and to contact the American officers to call attention to the fact that EASY 01 conflicted with current low-level flight regulations. This is also explicitly recognized in the reasons, with which we concur, for the dismissal of the case by the examining magistrate of the Military Court of Padua.

The combined effect of abstaining from action which, unfortunately, all too often has an even greater impact than explicit measures, and the absence of real operational powers, induced the Italian commander of the Aviano airbase (who was nevertheless the primary institutional liaison for his American counterparts on the base) not even to carry out his duty to inform the American command that the flight did not comply with SMA 175 of 21 April 1997, even though this was provided for by the technical arrangements governing the relationship between military authorities. And yet this would have helped to underscore the importance for Italian military authorities of minimizing the impact of low-level flights on the local population and environment and, at the same time, would have helped make their already excessively careless American counterparts more aware of their

responsibilities. Furthermore, if the Americans had continued to flout the regulations, Col. Durigon should have informed his superiors, as expressly provided for in the Memorandum of Understanding of 30 November 1993.

This is not a mere question of form, it is more a matter of being sufficiently credible to insist on compliance than one of technical or legal powers.

Lt. Col. Carratù's position differs from that of Col. Durigon since he had no institutional liaison function with the American command at Aviano. His job was the purely technical one of « deconflicting » flights (for all Italian airspace, which involved a considerable work-load). To this should be added that the flight schedule had already been communicated via the operations office and via the Italian command at the Aviano airbase, making it reasonable to assume that the flight schedule did not contain irregularities. All this appears to provide reasonable justification for the fact that Carratù did not detect non-compliance with instructions contained in SMA 175 and, consequently, did not alert his superiors.

PART V

GENERAL ISSUES RAISED BY THE CERMIS MISHAP

1. THE REGULATORY FRAMEWORK – TREATIES AND AGREEMENTS

1.1 Introduction. The Treaty of Washington of 4 April 1949

The North Atlantic Treaty Organization (hereinafter NATO) was established in the period immediately following the Second World War. NATO's principal aim was to create a defensive military alliance between the United States of America, Canada and the Western European countries which had adopted traditional systems of liberal democratic government. In fact, the military side of the Alliance was not unrelated to the objective of reinforcing political and economic ties between the parties to the agreement. NATO was therefore not a military alliance alone but also sought to create a union of states to counter to the collectivist economic system of the Soviet Union and the countries that would later form the Warsaw Pact.

Thus, the concept behind NATO was based on both strategic and economic-political motivations deriving from the so-called Truman doctrine, namely that it was indispensable to use all means to defend European countries from attempts by the Soviet Union to expand beyond the geographical borders drawn at the end of the Second World War.

Such needs were also keenly felt in Europe. On 17 March 1948, the Treaty of Brussels, signed by Belgium, France, the United Kingdom, Luxembourg and the Netherlands constituted the Western European Union (WEU). Founding members of the Treaty of Washington were Canada, Denmark, Ireland, Italy, Norway and Portugal, together with the United States and the signatories of the Treaty of Brussels. The first enlargement of NATO took place in 1951 with the entry of Greece and Turkey. In 1954, the Federal Republic of Germany also joined, and in 1981 it was the turn of Spain. Lastly, in 1999, Poland, the Czech Republic and Hungary, formerly of the Soviet Bloc, were admitted. Beginning in the early 1990s, a series of consultative organizations were created in order to establish permanent relations between NATO, the states of Central and Eastern Europe and the countries that emerged after the collapse of the Soviet Union (North Atlantic Co-operation Council, Euro-Atlantic Partnership Council, Partnership for Peace).

The legal basis for the Treaty of Washington is expressed in Article 5 of the Treaty, which refers to the right to legitimate defense against armed attack.

The purposes laid out in the Treaty are easily understandable in the light of the events of the period in which the Treaty was drawn up. The impossibility of implementing the idea of concentrating the government of the international community in the United Nations and

the existence of ideologically opposed blocs of states headed by the United States and the Soviet Union respectively meant that NATO was given very precise aims. The principal aim of the Treaty of Washington was to guarantee the maintenance of peace and security of the signatory countries through the creation of a security system in exercise of the rights recognized by the United Nations (Article 5). While each individual party to the accord subject to armed attack was left free to react independently, the system permitted recourse to legitimate collective defense pending measures taken by the Security Council to put an end to such armed attack. NATO was therefore established primarily in order to constitute a system of collective self-defense, under which armed attack against one of the members is considered an attack against all of them, and consequently each of them shall have the right to take such action as it deems necessary to intervene to stop the attack and restore peace and security, in accordance with the conditions provided for by the Charter of the United Nations (at the request of the party that has been attacked).

Concerning the geographical scope of the mechanisms provided for in the Treaty of Washington, Article 6 limits the application of collective self-defense mechanisms to the territories of the signatory countries, although this area has certainly been enlarged not only in terms of geographical reach but also in terms of the type of intervention used: it now includes the territories of non-NATO members and intervention of an economic, social, and humanitarian nature designed to prevent conflict rather than intervene militarily, all part of a « soft security » approach.

From the very start, NATO had an integrated military structure, topped by the Military Committee composed of the chiefs of staff of the member countries. The Committee has the task of coordinating military activities in peacetime and of drawing up plans for integrated defense to be submitted to the Council or to the Defense Planning Committee. The Council and the Planning Committee decide how the available armed forces are to be used. The possibility of there being emergency situations requiring an immediate military response has led to the drafting of a set procedures for military response to external attacks, as part of the wider « strategic doctrines » adopted by the Alliance.

The drafting of the strategic doctrines, i.e. the set of rules which establish the operating procedures for military intervention of NATO forces against external attacks, is entrusted to the Military Committee. The strategic doctrines express the political and military orientation of the Alliance. An analysis of the strategic doctrines reveals the evolution of NATO. A crucial element in the strategic doctrine of Rome (1991), for example, is the idea of local crisis management, considering that the possibility of a nuclear confrontation with the Soviet Union and the Warsaw Pact countries is no longer a threat, and of the use of NATO forces in UN missions. In 1999, on the occasion of NATO's 50th anniversary, a new strategic doctrine was launched. This envisaged

definitive detachment from the United Nations and provided for the possibility of setting up operations managed independently by NATO, without requiring prior authorization from the Security Council.

This new strategic doctrine introduces the possibility of intervention outside the « NATO area », in a particularly broad interpretation of security which goes well beyond the classic notion of armed attack against one of the member nations, as provided for by Article 5 of the Treaty of Washington, and it may well take the form of « soft security » intervention, as mentioned above, designed to prevent conflict or to permit post-conflict reconstruction. The 1999 strategic doctrine reaffirms that a threat for parties to the Alliance that justifies their intervention might well arise from local crises, such as territorial disputes, the breakdown of states, serious violations of human rights or a mass exodus of refugees.

The Treaty of Washington contains only a few clearly established obligations. Most of the obligations deriving from membership of the organization require implementation by the individual signatories. In other words, the Treaty is a sort of framework agreement since it constitutes the legal basis for a range of activities designed to implement the provisions of the Treaty itself. This is very common in treaties, especially in the context of international organizations, where it is thought preferable to reach agreement on the fundamental principles underlying the general areas of the treaty while delegating the implementation of such principles to later agreements. This insures great flexibility in determining the rights and obligations of member countries and in the choice of instruments with which to tackle individual situations as they arise.

1.2 International law

During the course of its activities, the Committee frequently made reference, among other things, to both customary and conventional international law concerning numerous aspects of the cooperation between states within the framework of the North Atlantic Treaty Organization and, more in particular, in bilateral and multilateral relationships between the allied countries.

There are, of course, various types of international treaty: on the one hand, a number of multilateral conventions such as the aforementioned Treaty of Washington dated 4 April 1949, which constituted the Atlantic Alliance, and the Status of Forces Agreement (SOFA – London, 19 June 1951), concerning the status of the armed forces deployed by the Alliance within individual states, lay down the general principles which govern particular cases of fundamental importance in the relationships between Alliance members, and in some cases also refer to the rules of customary international law. On the other hand, a whole range of agreements, conventions and understandings – generally drafted by governments on a bilateral basis – are designed to enable implementation of the

conventions of a more general nature or to regulate the technical aspects of such conventions. (12)

Particularly significant for the activities of the Committee were the SOFA, which governs the status of the allied armed forces, and the Protocol of Paris dated 28 August 1952, on the Status of International Military Headquarters set up pursuant to the Treaty of Washington. There are also numerous bilateral agreements: the Basic Infrastructure Agreement (BIA) of 20 October 1954, signed between Italy and the United States, concerning the use of infrastructure located on Italian territory; the Italy-USA Technical Agreement of 30 June 1954; the Memorandum on the infrastructure of the Aviano airbase, dated 14 May 1956; the Memorandum of 30 November 1993 on the use of the Aviano base, with the relative Technical Agreement of 11 April 1994; the Memorandum of Understanding (referred to as the « Shell Agreement ») on the use of installations-infrastructures by US forces in Italy, signed on 2 February 1995 by the Italian Ministry of Defense and the US Department of Defense. The last of these agreements is particularly interesting since it establishes the procedures to be used for drawing up or updating the relative technical arrangements for each installation ceded to US forces under the BIA.

Along with other agreements between Italy and the United States, the Memorandum of Understanding between the Minister of Defense of the Italian Republic and the Supreme Headquarters Allied Powers Europe (SHAPE), concerning the provision of logistical support to external forces in transit or temporarily based on Italian territory in compliance with the 1045 plan, « Joint Endeavour » of SACEUR, is also relevant. It was drawn up on 14 and 15 December 1995. Following this Memorandum, a further three agreements were to have been drawn up for army, naval and air forces (according to statements made during the hearings, only the first two have been signed).

As noted, the SOFA, signed soon after the war, governs the status of the armed forces of the members of the Atlantic Alliance. Among other things, it regulates a number of fundamental aspects of the relationships between Allied countries, such as the apportioning of jurisdiction between the receiving State and sending State over allied personnel who commit offenses. As will be examined in greater depth later, on the basis of customary international law, the SOFA provides for the exemption from jurisdiction of the receiving State for offences committed during the performance of official duties (Article VII, paragraph 3; such offences are also governed by Presidential Decree 1666 of 2 December 1956, which contains the rules pertaining to the application of Article VII of the SOFA). This regulation seeks to guarantee that military personnel who commit offenses while carrying out their duties shall be judged by their country of origin and not by

(12) For the texts of some of the agreements signed within the framework of NATO prior to 1990 and for some interesting essays concerning the regulation of NATO military bases in Italy, see Camera dei Deputati, Servizio informazioni parlamentari e relazioni esterne, Le basi militari della NATO e di Paesi esteri in Italia (with contributions by RONZITTI, MOTZO, MARCHISIO and POLITI), Rome, 1990, p. 147 ff. For a broader analysis of NATO, see also the more recent CANNIZZARO, "N.A.T.O.", Digesto delle discipline pubblicistiche, vol. X, UTET, Turin, 1995, pp. 52-75.

the country in which the offense was committed. However, the same treaty also establishes that the receiving State may ask the sending State of the person who has committed the offense to waive its right to exercise primary jurisdiction (Article VII, paragraph 3(c)). The SOFA also contains an important provision concerning the allocation, between receiving State and sending State, of the cost of satisfying claims for damages caused during the performance of official duties (Article VIII). As will be seen in greater detail further on, all these aspects emerged during the Cermis affair.

It should be borne in mind that at the time of the Cermis tragedy and, especially, after the decision of the court martial in the United States to acquit those responsible for the tragedy, much criticism was leveled both in Italy and in the countries of some of the victims against the terms of the SOFA and in particular against the exemption from jurisdiction. It was argued that in certain cases the principle of immunity from jurisdiction could be unjustly transformed into immunity from responsibility (we return to this subject in section 2.1 of this part).

We have pointed out that there are numerous agreements implementing the general conventions, which for the most part have been signed by the executive branches of government on a bilateral basis. These are agreements of a highly technical nature concerning the use of installations and infrastructures located in allied countries. For the purposes of the activities of this Committee, the agreements signed between Italy and the United States are naturally most relevant.

The Cermis tragedy accelerated the process of negotiating amendments and updating these bilateral agreements with the United States, terminating with the report by the Tricarico-Prueher Commission in 1999 (see section 6.1 of this part below).

The issues addressed by international treaties are thus of various types. Particularly significant for the work of the Committee was the information concerning: the structure, organization and use of military bases of the NATO members (see following section); in matters concerning civil and criminal jurisdiction over members of the armed forces of Allied countries and, generally speaking, the status of the armed forces stationed and operating in foreign countries, as well as the responsibility at the international level for military personnel of the receiving and sending States. The relevant provisions of the SOFA were also examined in order to determine damages, payment procedures and the party responsible for payment (see below, sections 2.1 and 2.2 of this part). Considerable attention was also paid to the amendments and proposed amendments to the agreements in these areas (see chapter 6 of this part and Part VI below).

1.3 The structure, organization and use of military bases of NATO member

The Committee thoroughly investigated the nature and the role of the international agreements concerning the organization and use of

military bases and installations of NATO member states, especially as determined by the bilateral agreements between Italy and the United States. The information received both from the Prime Minister's Office (which, as has already been stated, made public some documents that had previously been confidential, such as parts of the 1954 BIA), and the information received from the military authorities consulted proved to be extremely useful.

The information reveals a complex, highly technical legal situation that for the most part is the result of agreements between military authorities that in the past had been implemented even without formal procedures to amend domestic legislation. In relationships between states party to a military alliance, agreements are frequently signed in order to implement other agreements reached previously in which explicit reference was made to further international regulations concerning details or technicalities. Legislation concerning details or technicalities is almost never subject to formal amendment procedures for reasons of the practicalities of international relations. The fact that the parties in a earlier treaty may agree to authorize the competent government authorities to reach further agreements mainly concerning details or technicalities or the implementation of the terms agreed upon in the initial agreement means that the agreements reached at a later date may well be drawn up in a simplified form. As we know, agreements drawn up in simplified form, unlike more formal treaties requiring approval by the head of state or, when necessary, ratification by Parliament (articles 80 and 87 of the Constitution), become effective with the signature of the plenipotentiary alone. Nor can it be maintained that agreements in simplified form do not enjoy the necessary publicity since, from 1984 onwards, all agreements signed by Italy (and therefore also those in simplified form) have had to be published in the *Gazzetta Ufficiale*.

In this context, the Memorandum signed on 2 February 1995 concerning the use of installations and infrastructures by US forces in Italy was particularly important during the hearings. In the Memorandum it is acknowledged that « it is advisable to have a single Technical Arrangement providing implementing procedures for each installation and/ or infrastructure, and that it is necessary to arrive at a procedure defining the proper way to return infrastructure ». To achieve this, the parties agrees to negotiate Technical Arrangements for each installation and/or infrastructure within the framework of the principal agreements signed. A Model Technical Arrangement is attached to the Memorandum, of which it forms an integral particolo

The Model Technical Arrangement confirms that until now the military bases used by the United States in Italy have been subject to a dual form of control by both US and Italian military authorities. The commanders of the bases are Italian military officers, but they do not have effective control over the activities carried out by the United States, since their responsibility is limited to deciding the number of flights and flight schedules and providing air traffic control services. Military control over the personnel, equipment and the type of

activities that are carried out by the United States is entrusted to the US commander. As concerns base personnel, the Model Technical Arrangement refers to the regulations contained in the SOFA.

To better understand the allocation of duties between the Italian commander and the US commander of the bases, the provisions of the Memorandum signed between Italy and NATO on 14-15 December 1995 are of particular interest. It establishes that the forces of the Sending Nation (SN) shall abide by the laws of the Host Nation (HN) (Italian law in this case) and that such armed forces shall comply with Italian criminal and civil law and Italian public safety laws. Annex I-D, an integral part of the Memorandum, after defining the Italian commander as the commander of the installation/airbase of the Italian Air Force, who retains his own authority over the entire installation/ airbase and represents the Italian Air Force at the local level, specifies among other things that the installation and/or airbase shall be under Italian command, while the commander of the SN unit exercises full command over the personnel, equipment and operations of the SN unit. The SN unit commander shall coordinate all significant activities with the Italian commander. The Italian commander shall inform the SN unit commander of all significant national activities. Should he feel that the activities of the SN unit violate Italian law, the Italian commander shall inform the SN unit commander and shall immediately consult superior Italian authorities for their opinion. In order to perform his duties, the Italian commander shall have free and unrestricted access to all areas of the installation. The Italian commander shall ensure that the SN unit commander immediately halts such activities as may manifestly violate law. The Italian Commander is the official representative of the installation or the airbase and shall perform all liaison activities with the authorities and with local external military and civilian bodies. Article 17 of Annex I-D establishes that the planning and execution of all training/operational activities shall be carried out in accordance with the civilian and military laws of the HN relevant to the specific sector.

Following the Cavalese tragedy, Italian and US authorities adopted and implemented a number of operational flight safety measures, before beginning the negotiations which led to the Tricarico-Prueher Report. These measures consisted of new restrictions on minimum flight altitudes, radio links with air-traffic control in Italian territory, briefing sessions by Italian air traffic control authorities and the use of Italian maps for flight planning. These measures will be examined again below, in section 6.2 of this part.

2. THE PROBLEM OF THE RESERVATION OF JURISDICTION

2.1 The reference regulatory framework

Until the Second World War, there was an important current of thought, supported by part of the relevant case law concerning the legal status of armed forces in the territory of a foreign country, according

to which « any public armed force, whether on land or sea, which enters the territory of another nation with the latter's permission enjoys extraterritorial status ». This definition, designed to grant a sort of absolute immunity from the jurisdiction of the receiving State to the armed forces of the sending State and the sending State itself, was superseded in the period following the war. When it was decided to codify a regulatory framework in line with the interests of the various countries involved and with the practice used up to that time, the system contained in the SOFA of 1951 did not hesitate to establish (as can clearly be seen from the preparatory work to the agreement) that:

a) the total immunity of foreign military personnel is not recognized under customary international law;

b) foreign military personnel shall comply with the law of the receiving State and its special regulations governing the performance of their military activities; therefore, they too are « subject to local laws ». In this regard US legislation, and in particular Article 134 of the Uniform Code of Military Justice (UCMJ), has been interpreted to establish that the violation of the laws of the receiving State is also to be considered as a violation of the internal laws of the sending State (13);

c) the receiving State shall exercise jurisdiction over the conduct of the members of a foreign force in its territory should they violate its laws. Such exercise of jurisdiction is generally subject to significant limitations and exclusions where the sending State similarly punishes the same conduct, and the situation is covered by certain circumstances provided for in the SOFA. In some instances, this is further detailed in the bilateral agreements governing the presence of foreign troops on the receiving State's territory;

d) the exercise of exclusive jurisdiction by the sending State for offenses committed by members of its armed forces in the receiving country is in any case legitimate, but only as concerns interests of the sending State which are not directly relevant to the receiving State (treason, sabotage, revelation of state secrets). (14)

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(13) Of considerable interest are the observations recently made concerning the US legal literature on the scope and consequences of application of Article 134 of the UCMJ: "This catch-all provision grants criminal jurisdiction over "all disorders and neglects to the prejudice of good order and discipline in the armed forces" and "all conduct of a nature to bring discredit upon the armed forces" By interpreting Article 134 of the UCMJ broadly, the United States has the ability to deny exclusive jurisdiction to the receiving State for virtually any crime committed by its military. One of the main policies behind the expansion of Article 134 was to reduce the scope of foreign criminal jurisdiction over U.S. forces. By expanding Article 134 to include all, or at least the majority of criminal offences committed by its military force in the receiving state, the United States has been able to retain criminal jurisdiction (albeit concurrent jurisdiction) over its military stationed in foreign countries" (K.C. PRIEST-HAMILTON, Who really should have exercised jurisdiction over the military pilots implicated in the 1998 Italy Gondola Accident?, in 65 Journal of Air Law and Commerce, summer 2000, pp. 619-620).

(14) Concerning the position of certain important members of the Atlantic Alliance on the question of exemption from the jurisdiction of the receiving State of members of the armed forces of allied countries, the conclusions reached in a study of German and British legislation and agreements between Germany and Great Britain are undoubtedly of interest. In particular, the study shows how in certain circumstances the receiving State may further limit its jurisdiction also in cases in which it would have competence under the terms of the SOFA.

These principles and an objective assessment of the interests of the states carried out in accordance with the criterion that recognition of rights in favor of a State's own military personnel should not be requested unless it is prepared to grant the same rights to the military personnel of other States operating on its territory (principle of reciprocity) led to a detailed and complex regulation of the situation described in (c) in order to exclude conflicting and contemporaneous exercise of jurisdiction by the sending State and the receiving State.

This regulation, adopted on the basis of standard criteria, is designed to recognize the priority exercise of jurisdiction by the State of origin of the military personnel or by the receiving State in relation to the interests that are alleged to have been prejudiced in each individual case or to the type of activity (whether or not it involves the performance of official duties) during which the illegal action was carried out. This system introduces criteria to determine the exercise of jurisdiction in order to prevent jurisdictional conflicts and avoid double jeopardy.

This regulatory system derogates from the general principle established in Article 6 of the Italian Criminal Code, according to which anyone who commits an offense in the territory of the Italian State shall be punished in accordance with Italian law. In so far as this inquiry is concerned, it should be pointed out that derogation from the principle of territoriality and the consequent priority of the sending State in the exercise of jurisdiction (except in the case of waiver of such priority by the sending State) is expressly provided for in the reference to unlawful conduct « committed in the performance of an official duty ». Although this only becomes operative after careful examination of the characteristics of each case, this situation appears to be based on criteria which permit a reasonable and balanced reconciliation of the various interests involved in the exercise of jurisdiction of the receiving State in relation to that of the sending State, in accordance with the principles of customary international law regarding the analogous matter of immunity granted to the organs of foreign States present in a host State. This is a long-established criterion in international practice, which rationally uses a reference parameter to evaluate all the various interests of relevance to the exercise of jurisdiction.

This criterion may not be entirely satisfactory, and it may therefore be preferable to adopt a broader, narrower or more precise criterion, as explained below. However, it is not legitimate to argue that the criterion, adopted in the laws relevant to the Cermis incident, is irrational or inconsistent with international practice. This is all the more important in view of the new ways in which State activities are becoming increasingly international, suggesting that an exclusively territorial approach to jurisdiction should be abandoned in favor of more flexible « functional » arrangements, with the attribution of jurisdiction to the State responsible for the function during the performance of which the event occurred. Such a functional approach would be preferable since it means that the sending State is internationally responsible for the actions of its public officials (with

obvious implications in terms of the « solvency » of the person who committed the offense and thus of compensation for damages). While a rigidly territorial approach would favor the exercise of jurisdiction of the receiving State, it would limit the responsibility of the sending State, enabling it to elude international responsibility.

We now address the issue of whether or not the activities of the military personnel involved in the Cermis incident should be considered as being performed within the framework of the service for which priority jurisdiction would be exercised by the sending State.

In the case in point, the position adopted by the American government was to include the activities of the Cermis flight of the EA-6B Prowler aircraft (mission EASY 01) of 3 February 1998 within the framework of the duties for which primary jurisdiction would be exercised by the sending State. The United States did so despite the fact that: (a) the flight in question violated the relevant national rules and to those then in force on the basis of the 1993 Memorandum of Understanding and the 1994 Technical Agreement and, (b) the flight was improperly included in a flight schedule for a permanently stationed unit, whose long-term presence in the theater meant that it was fully familiar with the characteristics of the local territory.

Despite being aware of these circumstances, the Italian Government did not hesitate to recognize the « priority » of US jurisdiction, even though it did unsuccessfully ask the United States to waive its primary rights.

The fact that the Italian Government recognized that the offense had been committed during the performance an official duty does not in itself appear to overrule the powers of the Italian judiciary to determine where priority jurisdiction lies. Since the question involved the interpretation of treaties concerning the exercise of jurisdiction, the national courts (not the Government) should have the final say in this instance. Even in the US legal system, where governmental decisions concerning international relationships are binding for judges, it is recognized (section 326.2 of the Restatement of the Law Third on foreign relations) that final interpretive authority lies with domestic judges, even though they are to « give great weight to an interpretation made by the Executive Branch ».

In the Cermis case, however, it was quite clear that the incident had in fact occurred during the performance of « official duty » covered by the priority of jurisdiction in favor of the sending State. In fact, it is significant that the operation had been defined as such by the sending State. This definition and recognition are considered to be significant by most of the national legal systems of the NATO member states: in the United Kingdom, for example, the certificate which specifies that an activity was performed as part of an official duty constitutes sufficient evidence of such status unless the contrary can be proved. Similarly, the courts in Germany are obliged to take cognizance of the content of such a certificate and only in exceptional cases may they override its evidential weight after conducting an analysis of the circumstances leading up to an incident with representatives of the government and the diplomatic representatives of the

sending State. In other cases, the certificate (or recognition) issued by the sending State has even stronger value: for example, Turkey considers the certificate issued by the sending State to be decisive, while France (under the provisions of a circular issued by the Ministry of Justice) grants equal weight to such a document used by the sending State if it is rendered and signed (also) by a staff judge advocate or legal officer.

Regardless of the evidential value of the US definition of the operation as a « service rendered in the performance of an official duty », the findings of the inquiry appear to confirm that it was in fact an operation carried out in the performance of an official duty. Despite the uncertainties which emerged from the preparatory work and the position adopted by the Italian delegation (which sought to restrict the scope of the definition of a service rendered in the performance of an official duty), it may reasonably be observed that specific objective circumstances which clearly emerged during the various hearings indicate that flight EASY 01 was carried out in the performance of an official duty. The equipment employed, its characteristics, the authorization required for its use and the specific official identification of the flight indicate quite clearly that it was an official flight despite the fact that it was carried out « outside of the authorized time and space limits » and in violation of the regulations referred to at the beginning of this section. (15)

This assessment is also supported by specific comparative case law involving the NATO Treaty. Further support is provided by court decisions regarding other situations involving identical or similar notions to those used in the NATO Treaty. In the case of an act which can be ascribed to the public function of a state body, the fact that a body has strayed beyond its area of competence or has contravened instructions relative to its activities is irrelevant. In fact, such an act would not be considered to form part of a public function only if the conduct of the foreign body proved, by its very nature, to be completely extraneous to the specific functions of the body or the body is otherwise clearly not competent. This was certainly not the case in the Cermis incident.

Thus, despite some indications to the contrary, the actual circumstances of the Cermis mishap contain objective elements which enable us to consider the actions of the US military personnel as forming part of the performance of an official duty, with all the consequent effects under the provisions of the SOFA.

There is nevertheless still a need – to be satisfied *de jure condendo* - to specify more precisely the circumstances in which an offense can be considered to have been committed in the performance of an official duty. Ideally, such clarification should ideally be undertaken in a unified manner by all the Member States of the EU in joint negotiations with the United States. This even more important in view

(15) See above.

of the extension of EU responsibilities in defense and security matters and the « Communitarization » of the so-called third pillar, at least as concerns the exercise of civil jurisdiction (Article 65 of the EC Treaty), which, as indicated below, strictly depends on the qualification of the activity concerned as an « official duty ». (16)

2.2 Determination of damage, payment procedures and the party responsible for payment

The fact that the operation was performed in the exercise of an official duty, as specified above, is also relevant in determining the damage caused, payment procedures for damages and the party responsible for payment.

The SOFA contains specific provisions regarding the rights of third parties who have suffered damage as a result of operations carried out during the performance of an official duty. It is also known that these regulatory indications are often not expressly followed in favor of other, more simplified means, as proved to be the case in the Cermis mishap.

As specifically regards the exercise of jurisdiction, it is commonly agreed that, in the presence of the circumstances specified above, the sending State, and thus its official body which committed the offense during the exercise of an official duty, may avail itself of immunity from jurisdiction. This position has also been explicitly confirmed by the Court of Cassation concerning the case being examined (Cass., sez. un. civili, 3 August 2000, no. 530, Pres. Vela, Est. Olla, Presidenza del Consiglio dei Ministri c. Federazione Italiana Lavoratori Trasporti – C.G.I.L.). It is precisely on the basis of this supposition that the SOFA establishes special regulations (Article VIII, especially paragraph 5) to specify the means and criteria for immediate payment of damages to any party (of any nationality) on the territory of the receiving State, precisely in order to prevent the aforementioned immunity from impeding full satisfaction of the claim.

The mechanism for payment of damages to third parties is designed to be concluded in the shortest possible time and in such a way as to prevent the dispute from undermining defense cooperation and to minimize consequent effects in order to prevent them from affecting political matters. It is with this in mind that both States first carry out independent investigations into the incident and exchange information. The aim here is to establish (for civil liability purposes as well) whether responsibility for the incident is to be ascribed

(16) According to Article 65 of the EC Treaty, "measures in the field of judicial cooperation in civil matters having cross-border implications, to be taken in accordance with Article 67 and insofar as necessary for the proper functioning of the internal market, shall include: a) improving and simplifying: - the system for cross-border service of judicial and extrajudicial documents; - cooperation in the taking of evidence; - the recognition and enforcement of decisions in civil and commercial cases, including decisions in extrajudicial cases; b) promoting the compatibility of the rules applicable in the Member States concerning the conflict of laws and of jurisdiction; (c) eliminating obstacles to the proper functioning of civil proceedings, if necessary by promoting the compatibility of the rules on civil procedure applicable in the Member State."

exclusively to the sending State of the military personnel. The criteria for dividing the costs of the award are naturally different in the two cases.

In the Cermis case, during and after the cooperation in investigating responsibilities and causes, the United States openly and publicly acknowledged its exclusive responsibility for the accident and for the manifest violation by its own military personnel of the regulations governing low-level flights and the normal rules of prudence that should be adopted in such cases. On the basis of these admissions, the US press and public applied pressure to ensure rapid intervention by the US government to provide adequate compensation to those who had suffered damage. In fact, Senator Robb submitted a special amendment to a Senate bill to anticipate and supplement the damages to be acknowledged as payable by the United States under the terms of the SOFA. This sum should have been paid directly, in full and immediately by the US government to the families of the victims. It is highly significant that authoritative mention has been made of « strategic compensation » in the legal literature. (17)

While it is true that the amendment was later dropped, it is also true that it was favorably received by most of the other members of NATO. And it is equally true that the proposal, together with the consent that it obtained both inside and outside the United States legal system, certainly facilitated a rapid and satisfactory solution to the matter of the compensation to be paid to the families of the victims, in accordance with the terms of the SOFA. The SOFA states that 75% shall be payable by the sending State and 25% by the receiving State (Article VIII, paragraph 5), but with different parameters for compensation for damages, which are considerably higher than those paid for similar cases in Italy (this prompted harsh criticism of the normally meager amounts paid as compensation for accidents similar to that of the Cermis tragedy).

The initiative mentioned above also helps indicate a way to improve the legal framework of the SOFA. In the most serious cases, and especially in cases in which foreign military personnel have violated local laws, agreed procedures or the rules of normal professional conduct during the performance of an official duty, the sending State should be liable for all damages (without the 25% participation of the receiving State). Moreover, in such a case compensation should be paid in accordance with the criteria most favorable to the claimant in the legal systems of both the receiving and sending States. The role of the receiving State in these circumstances must obviously be that of (a) ensuring payment of compensation in any case according to the criteria mentioned; (b) facilitating the settlement of the various lawsuits involving the families of the victims and other claimants and (c) investigating and ascertaining any greater liability of the sending State as mentioned above.

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(17) REISMAN and SLOANE, "The Incident at Cavalese and Strategic Compensation", in *American Journal of International Law*, 2000, p. 505 ff.

Concerning the last point, the claimant should be able to turn directly to the military authorities of the sending State through the special ad hoc conciliation bodies (as already provided for in the NATO system), using procedures which could be improved further.

3. AMENDING THE ITALIAN CIVIL AND CRIMINAL CODES

In addition to matters of international law, the Committee also assessed the need to amend Italian civil and criminal law in order to guarantee more adequate safeguards in cases similar to that of the Cermis tragedy.

In the opinion of the Committee, certain legislative changes could be made. These are briefly indicated in the following sections.

*3.1 Amendment of Article 589 of the Criminal Code or insertion of an Article 589-*bis

The first paragraph of Article 589 of the Criminal Code establishes that negligent homicide *(omicidio colposo*) is a criminal offense. The second paragraph specifies the aggravating circumstance of negligent homicide resulting from a violation of the highway code or the laws covering accident prevention in the workplace. Although in the past the provisions of the second paragraph of Article were considered to delineate a separate offense, for over twenty years now the Court of Cassation has clearly considered the second paragraph of Article 589 to be an aggravating circumstance in cases of negligent homicide. (18) It is therefore clear that in order to consider the aggravating circumstance of a violation of flight regulations resulting in negligent homicide, it would be necessary to make explicit provision in the second paragraph of Article 589 (alongside the provisions concerning the highway code and workplace accident prevention).

Another solution would be to provide for a separate paragraph specifying the aggravating circumstance. This could be inserted between the second and third paragraphs of Article 589, and would explicitly refer to conduct which negligently leads to the death of a person through violation of flight regulations.

It is clear that this aggravating circumstance could technically be introduced as a separate offense in an Article 589-*bis* of the Criminal Code, without modifying the provisions specifying the offense and the aggravating circumstances contained in Article 589.

It might be even more effective, and certainly respond more effectively to social need, to introduce a separate offense (again as an Article 589-*bis*) of negligent homicide that did not cover negligent homicide resulting from violation of flight regulations, but rather negligent homicide resulting from the operation of an aircraft. In this

(18) Cass. Pen. of 26/6/1975, in Cass. Pen. Mass. Ann., 1976, 704; Cass. Pen., Sez.III of 5/7/1976, in Arch. Giur. Circ. e sinistri, 1977, 292.

case, it would be possible to ascertain exclusively the existence of negligence in terms of conduct (and thus of generic negligence – *colpa generica*) in relation to the fact that the death resulted from sole fact of operating an aircraft, rather than having to ascertain that it resulted from a violation of flight regulations (specific negligence – *colpa specifica*). Drafting an Article 589-*bis* in this way would avoid the problems that also arose in relation to the second paragraph of Article 589, which the judiciary resolved by ascertaining that negligent homicide pursuant to the second paragraph of Article 589 did not require a violation of the highway code or workplace accident prevention legislation in particular, but simply a violation of any measure governing vehicular traffic (19) or the failure to provide adequate protection measures for workers. (20)

*3.2 Amendment of Article 590 of the Criminal Code or insertion of an Article 590-*bis

With the same procedures and possibilities for legislative modification of Article 589 or insertion of an Article 589-*bis*, it would also be possible to amend Article 590 of the Criminal Code.

The first paragraph of Article 590 establishes that negligent personal injury *(lesioni personali colposi*) is a crime, while the third paragraph specifies the aggravating circumstance of negligent personal injury caused as a result of a violation of the highway code or the laws covering accident prevention in the workplace. It is therefore clear that in order to consider the aggravating circumstance of a violation of flight regulations resulting in personal injury, it would be necessary to make explicit provision in the third paragraph of Article 590 (alongside the provisions concerning the highway code and workplace accident prevention).

Another solution would be to provide for a separate paragraph specifying the aggravating circumstance. This could be inserted between the third and fourth paragraphs of Article 590, and would explicitly refer to conduct which negligently causes personal injury through violation of flight regulations.

It is clear that this aggravating circumstance could technically be introduced as a separate offense in an Article 590-*bis* of the Criminal Code, without modifying the provisions specifying the offense and the aggravating circumstances contained in Article 590.

It might be even more effective to introduce a separate offense (again as an Article 589-*bis*) of negligent personal injury resulting from the operation of an aircraft.

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(19) Cass. Pen. 17/2/1977, in Giust. Pen., 1977, II, 494.
(20) Cass. Pen. of 18/11/1982, in Cass. Pen. Mass. Ann. 1984, 1429.

3.3 The hypothesis of civil liability for damage caused by flight activities as an alternative punishment independent of the question of criminal liability

Without wishing to dwell too long on this issue, it is worth briefly noting that regardless of any changes to criminal legislation, it is clear that damage or injury gives rise to a claim for compensation of such damage or injury. It would be therefore be a simple matter to introduce civil liability legislation that provided for the compensation in the event that a legal interest has been harmed as the result of the operation of an aircraft.

This solution, which we feel could easily be included among those concerning the performance of hazardous activities or the responsibility of employers for damage caused by their employees in the performance of their duties, should be considered as an explicit form of « objective liability »: he who benefits from a situation is also liable for any harm: *ubi commoda, ibi incommoda*. In other words, citing Trabucchi, we would have « liability for occurrence, as opposed to liability for conduct ».

This form of objective liability for the operation of an aircraft, which in civil law would not be affected by the preclusion that such a norm would encounter in the Criminal Code, would enable the direct attribution of liability, and the consequent damages, to the party responsible for the flight which caused the damage. If the harm to the legal interest caused by the operation of an aircraft were attributable to a non-Italian aircraft, it would clearly open the way to a civil action for compensation directly from the aircraft's State of origin, without the need to hope for acts of generosity on the part of that State, which may well be dictated by fickle political considerations .

Moreover, there would be no need to demonstrate liability arising out of the way the aircraft was operated. Rather, liability would be linked to the fact of the hazardous nature of flight operations themselves. It would therefore be possible postulate cause for action to recover damages even in the event of fortuitous circumstances or *force majeure*, should this prove necessary.

In this manner, safeguards would be created to protect against any possible defects of jurisdiction. In addition, it would in any case be possible to impose a sanction on an act committed on Italian territory, even when carried out by citizens of another State, who might claim the priority exercise of jurisdiction by their State of origin.

Indeed, if we were to sanction possible objective civil liability for damage caused by the operation of an aircraft (within the terms referred to above) arising in relation to the mere fact that it is a hazardous activity, we would be faced with two possible cases:

a) the flight operations were conducted as part of an official duty;

b) the flight operations were not conducted as part of an official duty.

In the first case, the state of origin of the person who commits the offense would be directly liable for civil damages, regardless of the

personal liability of the citizen of the State of origin. In the second case, Italy would have exclusive criminal jurisdiction to ascertain the responsibilities provided for in the first paragraph of Article 27 of the Constitution, as well as the right to take action against the person who committed the offense to obtain compensation for damage under civil law.

In both cases (determining which applied could at this point be left to a sole declaration by the State of origin of the party who committed the offense) the Italian State would have the direct possibility of applying its own laws.

4. REGULATION OF FLIGHT OPERATIONS

4.1 Overview

This section regards low and very low-level flight operations. As this is a multi-faceted issue, it needs to be looked at from a variety of perspectives. This particular section focuses on the regulatory background and the procedures for planning and controlling flights.

To begin with, a brief overview of some of the basic concepts of air traffic in general and operational air traffic in particular is useful, especially since this latter category is directly pertinent to the flights under examination here. It also has to be remembered that various revisions, changes and organizational restructuring have taken place since the incident. In common with other types of air traffic, military flights must follow very precise disciplinary rules that are enforced by the appropriate organizational and operational structures.

The legislation regulating the use of Italian airspace provides for two types of traffic. The first, known as General Air Traffic (GAT), refers to the flights and activities of all civilian aircraft as well as any military aircraft that choose to follow GAT conventions. The second type is known as Operational Air Traffic (OAT) and refers only to military aircraft, which are required to comply with a well-defined but different set of rules. The scrupulous observance of the rules by all parties makes the coexistence of these two different types of traffic possible. They are both carefully and systematically coordinated so that essential flight safety requirements can be guaranteed for all aircraft, regardless of class. Thanks to this careful coordination, the disparate objectives and requirements of civilian and military air traffic can both be fulfilled. Regionally-based civilian bodies attached to the Air Traffic Control Service (ATS) provide an uninterrupted service of traffic coordination 24 hours a day, and personnel from the Italian Air Force Control and Coordination Service (SCC/AM)) work in side by side with their civilian colleagues. Even so, the demands of the two types of traffic are not always compatible. The ongoing task of reconciling the conflicts that arise has been further complicated by the expansion of civilian air traffic, especially commercial flights, the rising number of which has gradually but inevitably led to the creation of new air corridors and assisted routes, and led to further regulations and

restrictions being imposed on available air space. The result has been a sharp decline in the amount of space available for military air missions

Aircraft following GAT conventions abide by a set of regulations that have the force of the law and are contained in a series of « Annexes » issued by the International Civil Aviation Organization (ICAO). For some time, GAT has relied on its own systems of flight assistance and various levels of related services including control tower guidance, radar and telecommunication network systems etc., all of them administered by the National Flight Assistance Agency (ENAV), which is part of the Ministry of Transport. The bulk of GAT consists of civilian aircraft activity but, as indicated above, it is also encompasses some military traffic, which must of course comply with the relevant regulations. The option to fly under GAT conventions is chosen as necessary where GAT procedures are compatible with the nature of the flight. Accordingly, military craft will comply with GAT conventions when engaged in, for example, transport missions, regular connection flights and general navigation training missions. These flights may be conducted at any one of a broad range of altitudes, though low to medium-level flights predominate.

For military and technical reasons, Operational Air Traffic does not abide by the ICAO regulations and recommendations described in this report. It does, however, follow highly precise regulations and procedures that the appropriate military bodies have set forth in considerable detail. The purpose of these regulations is to facilitate the accomplishment of the mission goals and the operational objectives of Italian Air Force units. The Italian Air Force is responsible for and in charge of all flight control and assistance services for OAT in Italian airspace. It is also in charge of the installations and services used for this purpose, such as various levels of control and coordination systems, control towers, aircraft approach, search and rescue, and weather forecasting, as well as the radar systems and telecommunication links that form the air defense chain. The Regional Commands (ROC) and, specifically: 1st ROC – Monte Venda/Padua and 3rd ROC – Martina Franca/Taranto, both of which existed before the Cermis incident, had the power to order OAT missions in any section of Italian airspace, provided the aircraft or helicopters involved were under the command of the Italian Air Force; and authorize OAT missions by helicopters and aircraft not under the command of the Italian Air Force.

It should be specified that when the ROCs were deactivated, their powers were initially transferred for a limited period of time to the Alternate/Mobile Operations Center (COA-COM) at Martina Franca before being definitively transferred to the Air Force Command-Operations Center (COFA-CO) of Poggio Renatico/Ferrara, where they remain to this day.

4.2 Regulations for military flight operations. Low-level flights. Restrictions

Having looked at the general background, we may now turn our attention to the regulations that expressly govern military flights. A

basic reference source of rules and procedures for OAT flights is directive SMA-7, issued by the Italian Air Staff, entitled « Procedures for the planning and execution of operational air traffic missions ». Published in 1982 on the basis of earlier directives, the aspects of SMA-7 that are relevant here were updated on 21 February 1996.

The directive specifies:

the control system agencies (air tactics) of the Italian Air Force responsible for the planning, coordination and control of OAT missions and the relevant means of support;

the tasks and responsibilities of the relevant commands and commanding officers;

the methods for planning, coordinating, controlling and executing OAT flights.

The document also specifies a series of obligations:

all Italian military personnel and allied military aircrews stationed on Italian territory and engaged in OAT missions in Italian airspace must apply and comply with regulations;

all OAT missions that commanders consider feasible and necessary to achieve training and operational goals must be included by each unit in the daily flight schedule (DFS);

unit commanders must judge whether an aircrew is suitable for a mission by considering the nature of the mission itself and the crew's level of qualification and readiness for engagement and combat.

The SMA-7 directive also stipulates which operational levels should be in charge of planning OAT flights and overseeing their implementation, and which should be in charge of coordinating the missions and providing air traffic control services. The directive specifies that unit/wing operation offices, base operation centers (BOC) or, at the squadron level, squadron operations rooms (SORs), all of which are recognized planning departments, may draw up a DFS valid for the following day that they must then submit to the ROC responsible for the area. The Air Traffic Control Center (ATCC) within the ROC is responsible for scrutinizing DFSs submitted by the various units. The ATCC seeks to arrange all the proposed OAT missions in sequence, evaluates the feasibility of each mission in the light of air traffic control and air defense as well as flight safety considerations, and assures that the planned flights are reciprocally compatible. Once it has completed this process of verification, known as « deconflicting », the ROC-ATCC (now the COFA-CO) contacts the original unit and assigns the missions by means of an ASMIX (assigned mission message), which effectively authorizes the requested flights.

The SMA-7 directive also provides detailed instructions regarding the methods to be used for composing message and assigning codes for missions and single flights (for example, « BOAT » is used to signify a very low-level operational (OAT) flight).

Another regulatory and procedural reference source is SMA 73, a directive on very low-level navigation training published in September 1992. The document is of key importance for low-level flight and contains important directives for flight units and aircrews. In setting out the limits of the different operational specialties, the directive defines the command responsibilities of the various units involved in a mission and lays down regulations for the activities of aircrews engaged in operational low-level training. It also describes the purposes of low-level flight and sets out rules of conduct. Making full use of the performance capabilities of the aircraft and exploiting the concealment that the terrain offers, even where the level of electronic and infrared disturbance is high, low-flight aircraft enjoy the advantage of being able to penetrate a target area rapidly. Since flight low reduces the length of time a plane is visible to enemy radar, the tactic reduces the probability of interception, thereby reducing the effectiveness of enemy defenses such as conventional anti-aircraft weapons and ground-to-air missile systems.

SMA 73 lays down specifications and definitions regarding: the « minimum separation distance » (MSD), i.e. the minimum distance that must be maintained between the aircraft and the surface of the ground or water during missions at an altitude below 2,000 feet above ground level (AGL) or average sea level (ASL); very low-level flight, which refers to fixed-wing aircraft with an MSD of less than 2,000 feet; and « very-low operational level » flight, which comprises fixed-wing aircraft at an MSD of less than 500 feet in daylight and 1,000 feet at night. Before the mishap, the minimum MSD was 500 feet AGL.

SMA 73 also contains a number of general regulations, such as meteorological restrictions (the rule being that low-level flights must not be conducted in cloud and the ground must be always directly visible), and regulations of a more specific nature that are intended ensure full compliance with national legislation regarding the training of aircrews. These more specific regulations include instructions on how to conduct pre-operational training flights in selected tactical areas that are dedicated to the purpose and subject to special constraints and limitations. SMA 73 also sets forth the responsibilities and tasks of the various levels of command from the Defense Staff and major units to smaller units and squadrons. In particular, flight commanders are specifically instructed to:

monitor the training of their crews with particular regard to flight safety;

set the MSD for low-level flights on the basis of each crew's experience;

ensure compliance with the specific directives for the various types of aircraft.

Finally, the directive recommends that every effort should be made to avoid causing disturbance to the civilian population unless strictly necessary for the accomplishment of the training objective, and

suggests that other routes using an MSD above the minimum should be used wherever appropriate.

The general regulations set forth in SMA 73 are supplemented by the instructions contained in the BOAT manual, published in October 1992 and updated to 31 October 1997. The updated version of the manual was provided to the USAF unit in Aviano. The manual forms part of the regulations issued by the Italian Air Force with the intention of striking a balance between the need to allow aircrews to reach the necessary level of training and the need to ensure flight safety and minimize the disturbance caused to the civilian population. All military and civilian air traffic subject to OAT regulations must strictly comply with the rules in the BOAT manual, which contains information, either directly available to the Italian Air Force or supplied to it, that is deemed absolutely necessary for pilots and crews carrying out or planning very-low-level OAT activities. At the same time, the manual also serves as a quick guide to low-level flight in Italy, and provides a useful and suitable reference source that should ensure that low-level missions are responsibly planned and carried out in conditions of absolute safety.

The manual states that the regulations and directives it contains « shall be applied to all national aircraft and military aircraft belonging to allied air forces that are authorized as Operational Air Traffic to carry out very-low-level flights over Italian territory and territorial waters under visual meteorological conditions (VMC) ». It specifies that allied aircraft may carry out low-level flights in Italian airspace provided the Italian Air Staff has issued prior authorization in the form of an annual concession granting « diplomatic clearances » for overflight and using Italian airport facilities. This requirement does not apply to allied aircraft carrying out low-level missions as part of previously planned exercises, i.e., in the course of joint exercises with Italian Air Force units, nor for allied units stationed in Italy, which must, however, submit their low-level training requirements to the Air Staff each year.

Every low-level mission must be examined and its route approved by the relevant Regional Operations Center (ROC, now the COFA-CO). The manual, however, also specifies that allied aircraft authorized to carry out low-level OAT activities must comply with current national legislation, and that crews from other nations may not fly such missions without first having received a briefing on low-level procedures. The primary task of the body/command that organizes activities (i.e., international exercises) is to make sure that foreign air crews receive a full briefing on all aspects of flight in Italy. The briefing must also lay particular emphasis on the measures adopted to minimize the disturbance caused by noise, the need to avoid prohibited and sensitive areas, and the obligation to abide by the restrictions and directives in the Notices to Airmen (NOTAMs). The organizing body is also under obligation to ensure that foreign crews are supplied with fully updated versions of the national directives for low-level flight. In the particular case of the EASY 01 mission, the briefing duty and the responsibility

for providing the necessary updates belonged to the 31st FW, which was the organizing command for the low-level OAT mission in which the VMAQ-2 squadron took particolo

The airspace available for low-level operational air traffic is divided into « BOAT » zones. The zones, which may be located over the land or sea, are areas in which low-level Operational Air Traffic (BOAT) flights are usually authorized and carried out. Each designated zone contains: flow corridors through which aircraft may fly in one of two directions (on even-numbered days the flow of traffic is in one direction, on odd-numbered days it is in the opposite direction); transit corridors through which aircraft can move from one zone to another or enter into controlled air space; zone and corridor entrance and exit points for which ground-board-ground communications are established with the traffic control bodies (SCC/AM) to report on positions.

The minimum flight altitude, minimum meteorological conditions (visibility must be at least 5 kilometers) and maximum speed (up to 450 knots) all vary from zone to zone. The 450-knot limit can be exceeded in some exceptional cases during the execution of authorized missions. For instance, during certain training exercises it is permitted to exceed the limit for a brief period of time over a short section of route to allow the military craft to zero in on a pre-established point on the ground to simulate an attack on a target (the target, too, is simulated). The target-destination that the attack aircraft, flying at a safe altitude, have to reach must be located well away from inhabited areas and, in any case, away from areas not suitable for overflight. It should be noted that it is prohibited to pass over those areas marked on the AMI-CNA map of Italy (scale 1:500,000, published by CIGA) or on the ICAO-CAI map as urban centers. (21)

The directives also recommend that the greatest care be taken when plotting routes to ensure that aircraft do not overfly mountainous zones (duly listed in the BOAT manual) where the danger of avalanches exists. The BOAT manual also contains timetable of weekly activities (Monday to Friday, excluding holidays) as well as a list of areas that are entirely off-limits, or subject to limitations and restrictions as indicated in the NOTAMs. In particular, the manual lists those areas that, being thinly populated, have been designated as « dedicated » or « tactical ». Provided all essential precautions have been taken, these areas may from time to time be used exclusively for exercises and certain forms of advanced training (such as very-low-level operational flights). Before the Mount Cermis incident, the minimum altitude for the execution of these special types of flights ranged from 250 feet (about 80 meters) in « tactical » areas to 500 feet (about 160 meters) for the rest of the Italian national territory, save certain areas where the minimum was 750 feet (about 240 meters). The minimum altitudes for helicopters were lower.

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(21) The minimum flight altitude for population centers remains 1,500 feet when flying within one nautical mile of the center.

The manual also specifies areas that are off-limits or subject to severe restrictions such as the airspace around hospitals, industrial plants, prisons, sectors designated for hang-gliding and ultra-light-weight craft, national parks and nature reserves. The manual also indicates the position of all known vertical and horizontal obstacles, electricity lines, cable car installations and lines. The BOAT is a comprehensive compendium of information and news to be consulted along with other relevant publications. The section containing permanent warnings and procedures to be followed is updated every six months by means of NOTAMs.

Another important document that merits attention is SOP ADD-01 a standard operating procedure dealing with « Regulations for the planning, programming and execution of flight activities by Italian Air Force units and allied aircraft based in Italy » issued by the Martina Franca COA-COM on 1 January 1998 and, with effect from 5 January 1998, substituting and annulling the SOP of 1st ROC ADD25 issued in January 1996. The document is essentially a consolidated text that draws together directives issued at a central level and encompasses the regulations and procedures to be followed for plotting flight paths, publishing them (which is done by the COA/COM), planning flight activities and their execution. SOP ADD-01 clearly state that the use of CNA-AM maps of Italy, scale 1:500,000, published by CIGA, is obligatory when drawing up a flight plan. It also states that the flight paths must be geographically distributed in all directions and that they must be congruent with the flow corridors indicated in the BOAT manual. It should be recalled that all GAT and OAT activities must be included in a DFS containing a primary plan, « Alpha », and an alternative, « Bravo », which must be submitted by a certain hour to the COA-COM one day before the intended flight. All the missions contained in the DFS must be examined by the ATCC-AM, which is responsible for communicating, before 20:00 hours, an assignment/authorization message (ASMIX). The originating body (the squadron operations office or BOC) must contact the ATCC-AM and reconfirm the DFS at least 30 minutes before the estimated time of departure (ETD). At the hearing on 30 March 2000, the Chief of the Italian Air Staff, General Andrea Fornasiero, discussed all the publications mentioned so far in this report. At the hearing, General Fornasiero described very-low-level flight as an essential part of the training and professional skills of aircrews, who must always be combat ready. He said low-level flight was a difficult skill, especially when conducted at the high speeds demanded. All parties, from the aircrews to those in charge of administering and controlling low-level flights, must proceed with the utmost care and fully consider all aspects of safety and the territory below so as to cause as little distress as possible to the civilian population. For this reason, it is necessary for each link in the entire chain of command to have detailed directives dealing with the regulation of low-level flight. As already noted in this report, these directives apply to all military aircrews, whether Italian or foreign, that operate in Italian airspace.

Another relevant publication is SOP ADD-8 in the version updated to 15 July 1991, which contains a compendium of the standard approved air routes, including those for the Aviano base and therefore also the AV047 route followed by the EASY 01 mission.

As General Fornasiero pointed out at the hearing, a whole series of additional temporary restrictions also exist in respect of training by foreign aircraft in Italy as well as transitory restrictive provisions imposed at a local level by the relevant regional commands (such as, for example, a ban on overflight of Alpine areas during the period when the risk of avalanches is greatest). These restrictions include:

message TR1-151/4464771-4 from the Command of Air Region 1, dated 12 December 1990, sets the minimum altitude for all flights in mountainous zones for the period 1 November to 30 April or, in any case, in the presence of snow cover at 1,000 feet AGL. This directive was included in the Pilot Aid Handbook of the 31st FW.

message from 1st ROC-Monte Venda regarding an ASMIX dated 16 December 1997 which includes a note, contained in the remarks (RMKS), reminding aircrews of the ban on flights below 2,000 feet in the Alpine zones of the Trentino-Alto Adige Region. The ban was also included in FCIF 97-16 of the 31st FW dated 29 August 1997.

A brief reference to the training activities of other NATO/WEU air force units stationed in Italy during the Balkans crisis completes this survey of the regulations on low-level flight. As the Chief of the Italian Air Staff pointed out in his hearing, the start of air operations in the former Yugoslavia and, more precisely, the start of Operation Deny Flight in the skies above Bosnia-Herzegovina in the first half of 1993, made it necessary to draw up a specific set of regulations to govern the training activities of allied air force units that were either stationed in Italy or simply operating in Italian airspace, since most had little or no familiarity with the local environment.

As a result of these operations, the volume of training and operational flights began to increase in tandem. The commitment demanded of the allied air forces since 1993 is worth noting (and was mentioned by the Chief of Defense Staff in his testimony): up to 600 aircraft were stationed in Italy and, at the most intense moments of the crisis, 21 Italian airports were used for some 200,000 missions. Whenever new units were deployed to Italy, training activity would increase while live operations continued apace. The natural result was a general increase in flight activity, with an inevitable impact on the environment.

Aware of the environmental repercussions of the increase in activities, the Chief of Air Staff imposed further restrictions on the hours during which activities could be carried out, the number of flights that could be authorized and flight altitudes, which were not to be lower than 500 feet by day and 1,000 feet at night. In the wake of the Cermis incident, even more restrictions were imposed. The legitimacy of these restrictions, which are dealt with in section 6.2 below, was confirmed by the Tricarico-Prueher Commission.

It should also be noted that in the second half of 1999, with the conclusion of the air campaign in Kosovo, the number of allied aircraft stationed in Italy diminished significantly, and the overall volume of activities consequently fell to an insignificant level.

In the meantime, however, mainly as a result of the stricter altitude limits, Italian Air Force units were left with fewer opportunities to carry out all the special activities that low-level training demands. To compensate for the fact that these types of training activities were not allowed in Italy, the Italian Air Force sought agreements with the air forces of other countries (Canada, Egypt) to allow it to use their airports and airspace instead. The cost of this solution is certainly not negligible, nor does it eliminate the need for units to carry out some of their training in Italy, however limited, because the aircrews still have to have a sufficient familiarity and confidence with the mountain areas of the country.

It is also necessary to recall the content of message SMA/322/00175/639/SFOR dated 21 April 1997, which has been examined in the various judicial inquiries into the catastrophe and analyzed in some detail in the present report as well. The question of whether it was appropriate to consider the message an important documentary source has raised some doubts because it does not appear to provide any unequivocal information regarding the applicability of specific restrictions. In the message, the Air Staff reports to the upper echelons of the NATO chain of command on the outcome of a meeting which had examined a variety of issues pertaining to the allied air units stationed in Italian bases as part of Operation Deliberate Guard. A number of options were discussed at the meeting, and an agreement emerged which might apparently, and even plausibly, be interpreted as constituting a proposed directive to lessen the socio-environmental impact of military flights by withholding authorization for low-level training activities over Italian territory and territorial waters by allied units participating in the Operation DG. As we know, divergent opinions and interpretations emerged about whether those measures were supposed to be prescriptive or not. The Chief of Defense Staff and former Chief of Air Staff General Mario Arpino made an authoritative statement on the subject at his hearing on 31 May 2000. Recalling that the issue had arisen owing to concerns not about flight safety but rather noise pollution and the objections of the civilian population, he specified that the message should be considered « not as an order but as a request which, therefore, had no prescriptive significance for the NATO authorities to which it was addressed, and still less to the national bodies to which it was forwarded merely as a matter of information ». General Arpino explained that he knew about the message since it was he who had instructed the Defense Staff to call the meeting that had led to its being issued and added, by way of clarification: « This is the crux of the matter: there was no interdiction, none was ever imposed. We did ask for a prohibition, but this was never expressly done ». At another point in his testimony, he declared: « A request was made not to authorize more missions of that type, but no one said they must not be authorized ».

As far as the United States was concerned, and as noted above, the message does not appear to have been mentioned in the report of the Command Investigation Board (chaired by General DeLong), nor did the Board give any indication of being aware of its existence.

Further, no sign, trace or evidence of the message has hitherto been found to exist in the records of the US Commands in Italy, the 31st FW, or the Marine VMAQ squadrons at the Aviano base. This suggests that the message is unlikely to have been received by these units because it was never transmitted in the first place by their superior commands (if they possessed it themselves), nor does it seem to have been transmitted down the US national or NATO chains of command.

4.3 Planning, executing and controlling flight operations

Taken together, the regulations described in this report constitute the makings of handbook for proper flight planning. As the Chief of the Italian Air Staff, General Fornasiero, pointed out, the flight activities of a unit may be dictated entirely by the training needs of aircrews either to get or keep them in a state of combat readiness, or else dictated by the demands of real operational engagement or preparations for operational engagement. Each unit submits its specific training requirements to the body in charge of coordinating flight activities. Italy's armed forces have been restructuring, and at the time of the Cermis incident the command and control activities as well as the duties which had previously been the responsibility of the ROCs of the 1st and 3rd Air Regions were all temporarily concentrated in the hands of the 3rd ROC of Martina Franca until the COFA-CO of Poggio Renatico assumed complete control of all flight activities. As for the procedural process for authorization, proposed flight activities are entered into the DFS that each Italian and allied unit in Italy prepare if authorized to do so. The 31st FW had always regularly followed procedures for the flights by the squadrons for which it was directly responsible, and was doing so at the time of the incident. The same procedures were adhered to when the 31st FW issued a DFS that included a request for training flights of a national character for the VMAQ squadrons of the Marines, who were temporarily stationed in Aviano for the purposes of Operation DG.

To prevent conflicts in the flight paths planned by the various units, the complete map of air traffic and air defenses was (and still is) verified by a special body At the time of the incident, this was the Martina Franca ROC, whose responsibilities have since been assumed by the COFA-CO of Poggio Renatico. Once it completes its task of verification, the COFA-CO sends an ASMIX to the units from which the flight requests originated. The ASMIX contains salient information on each flight: its name, route, the type of aircraft, and the estimated time of departure and arrival.

With respect to the execution of live operations, a distinction must be made between national and NATO requirements.

In the past, ROCs, acting through ATCC-AM centers, were in charge of national operational missions and national operational-training activities, and the COA/COM was in charge of planning and control. After the organizational overhaul of the armed forces, all these functions were transferred to the COFA-CO of Poggio Renatico, and there they have remained.

NATO activities, on the other hand, are controlled differently. NATO operational training, especially during the Bosnia operation, was, and still is, controlled by the 5th ATAF, which is responsible for carrying out planning and control activities through the Combined Air Operation Center (CAOC). As long as the originator of a flight request is a NATO body, it will be authorized by means of a special Air Task Order, which is a message containing the necessary information for the planning and execution of the mission. All activity originating from or administered by the CAOC is forwarded to the agency in charge of controlling the national chain of command and is therefore interested in being kept informed (in the past the COA/COM; now the COFA-CO of Poggio Renatico)

As regards the execution of the mission, the originating agency will check the Air Task Order, using its NATO or national chain of command and control to do so. In the case of a NATO mission, including but not limited to those relevant to Bosnian operations, the « tactical control » of air forces was managed by the 5th ATAF through the CAOC, with the assistance of all available facilities, including radar systems, visual ground control, AWACS and satellite links. The 5th ATAF's task was to issue flight orders on a daily basis to the relevant units, then oversee and check the implementation of the orders. The orders could refer to actual missions in a theatre of operations or training missions that were specifically preparatory for future operations in Bosnia. What these activities had in common was that they were all NATO-related. It is worth mentioning in this regard that the 5th ATAF was not responsible for running training missions that did not form part of DG. The 5th ATAF was not responsible for receiving or assessing any non-DG mission requests, nor was it entitled to issue any authorization for the same, regardless of the steps it did in fact take to block requests for training flights by disactivating the related function of its information system.

During the phase of execution or, more accurately, during the actual flight, a mission establishes and usually maintains radio contact with the controlling agencies in the relevant areas. Once an initial radar identification has been made and the aircraft trace is matched with that of the mission and marked as « friendly », the aircraft will generally proceed along its route without the radar operator necessarily maintaining positive control. When this happens, the radar continues to record the trace of the aircraft automatically, though not in mountainous zones where the lie of the land is such that it is often impossible to maintain regular and secure radar readings after the initial identification. Mountainous areas generally constitute a very real obstacle and limit the effectiveness of ground-based radar stations. Indeed, they can sometimes cause difficulties even for AWACS. It is not

always possible to maintain constant and accurate control over the flight altitude of an aircraft picked up by airport radar unless the radar station is specifically located at a point from which it can scan the area in question.

4.4 Considerations

Overall, the regulations examined appeared to be remarkably accurate, clear and exhaustive. They are very precise and detailed where needed and can be deemed substantially valid, effectively covering the necessary areas relating to flight procedures and rules in general and in their various aspects. Considered as a complete body, the rules constitute a system of measures that are appropriate to the task of planning, plotting, executing and controlling aerial missions, with special regard for low-level training flights, while at the same time fulfilling fundamental and essential safety requirements from every point of view.

The various parameters set by the relevant authorities in respect of the type of aircraft, flyover areas and other factors were also found to be satisfactory. The specific restrictions and parameters regarding altitude limits were adequate from a safety perspective and afforded protection to the air crews and the craft. The safety standards were also sufficient to avert danger and the risk of harm to people and property in the surrounding environment.

The altitude limits imposed before the Cermis incident might have been considered appropriate, in that they were based on a fair and acceptable compromise between aircrews' training requirements on the one hand and the demands of safety and the need to protect the civilian population from the environmental impact of flights on the other. It has been established that the decision to increase the minimum flight altitude in some areas was based not on safety considerations, for these were already full addressed, but rather on reducing excessive noise pollution and the environmental impact in general. The decision to raise the minimum altitude levels in certain areas was essentially made in order to accommodate the demands of the civilian population.

The validity of the current rules was also confirmed by the elements that emerged during the hearings. An examination of the current rules demonstrates that all Italian and allied aircrews had access to all the information they needed for planning and carrying out missions of the type under consideration in conditions of complete safety. The 31st FW was properly supplied with the BOAT manual, SOP ADD-1 and other relevant documentation and was therefore in possession of all the information needed for the essential and preventative instruction of its own squadrons as well as the VMAQ squadrons, although the latter had to document themselves, taking the initiative to request all necessary assistance in a timely manner.

The procedures for requesting missions, drawing up daily flight schedules, the process of approval and authorization for training and

operational activities appear to be similarly straightforward and clear, both for the national and NATO chains of command. The duties of the structures and bodies throughout the process of drafting flight requests, forwarding them and subsequently verifying their feasibility and confirming and assigning a mission were equally well-defined. The procedures for controlling flights during the execution of a mission were both straightforward and simple. Naturally, the sufficiency of the procedures for flight control largely depend on the quality and capabilities of the equipment available. We found these to be satisfactory both from a general safety perspective and with respect to « procedural » checks, i.e. checks carried out by means of ground-air-ground communications to report at key points of the mission, to pass on urgent, material or important information and to call for assistance if required.

While there is little doubt that the rules for flight safety themselves are valid, the ability to maintain constant monitoring of compliance is inadequate or lacking owing to the inadequacy or absence of the necessary resources. While in flight, apart from brief radio contact with air traffic control to report on its position and any other relevant eventualities, or else establish communications with agencies in charge of air defense (for the purposes of identification where possible), the position and altitude of aircraft are largely outside the real-time control of ground authorities. Similarly, it is not possible to reconstruct the route and parameters of a completed flight.

As the Chief of Defense Staff observed, only a limited number of Italian Air Force tactical aircraft are able to use instruments that record salient flight data, and the information that is gathered is used exclusively for post-mission analysis and training purposes.

Air defense radar has only a limited ability to detect low-level flights and, as it does not work well in mountainous zones, sometimes even fails to detect aircraft at higher altitudes. The civilian radar network, which is designed for airspace control and other functions, is different but has its own limitations. Even the AWACS-based system does not easily lend itself to the type of control required unless the AWACS aircraft are specifically assigned the task of monitoring a particular sector of special interest. This type of monitoring is not practicable, however, because the AWACS aircraft belong to the NATO fleet and may not be redeployed from their primary function just to satisfy national needs. Although the acquisition of an AWACS capacity is one of the priorities of the Italian Air Force, as the Chief of the Italian Air Staff stated during his hearing, it is unlikely to come about in the near future owing to a lack of funds.

As the current situation is likely to persist, one possible low-cost solution that would provide a monitoring system for the flights in question, might be to install an onboard system based on the global positioning system (GPS) technology similar to the antitheft satellite devices fitted in many automobiles. Obviously, the appropriate authorities and governing bodies would be responsible for developing and evaluating this idea.

With respect to flight regulation, however, it is simply not enough to introduce better devices and improved standard procedures for low-level flights, nor even to make sure that aircrews are fully aware of the regulations and the obligation to comply with them. It is also necessary to pay due attention to the problem of regulating conduct and, consequently, dealing with factors relating to individual behavior. In other words, the necessary task of laying down regulations cannot be deemed complete until the regulations have been so comprehensively assimilated by the relevant parties that they constitute a cultural value that is underpinned by the sense of professionalism of the personnel who deal with the sensitive issue of safety, personnel who generally speaking are highly qualified individuals, whether aircrews or commanders at various levels of the military hierarchy

The Cavalese mishap demonstrated that the rules governing low-level flight in Italy were completely irrelevant to the EASY 01 mission of 3 February 1998 because, as the Chief of the Air Staff pointed out in the course of his hearing before this Committee, that flight along contravened a number of regulations. Indeed it would be extremely difficult, and probably impossible, to devise a system of rules different from those now in force that could prevent such a mishap from occurring given that the conduct of that particular flight was utterly irregular in the most negative and reprehensible sense possible.

When classifying accidents ascribable to human actions, a clear dividing line separates errors of judgment about aircraft performance from states of necessity and acts of indiscipline. High-ranking authorities of the Italian Air Force told the Committee that acts of flight indiscipline that lead to harm or give rise to situations of danger were extremely rare nowadays. They stated there was scarce opportunity for indiscipline thanks to the careful selection procedures, the training that crews receive, the complexity of the aircraft themselves which deliver not just high performance but also greater reliability, and the fact that most operations do not give crews much chance to become distracted or indulge in improvised diversions. For the most part, accidents caused by human error originate from misjudgments made while flying the aircraft caused by the less-than-optimal psychological or physical conditions of the pilot or aircrew and/or special environmental conditions. Rarely has an accident been caused by an display of individual ego for its own sake, in violation of and counter to all forms of training.

The Cermis incident was a clear and, unfortunately, catastrophically extreme instance of flight indiscipline. Not only did the crew involved act in direct conflict with their training background, but they also demonstrated complete disregard for any ethics of flying and clearly lacked the balance, seriousness, rectitude, self-control and self-discipline which, along with proper training, are the defining characteristics of any truly professional pilot whether military or civilian.

Even though the pilot had proper training and instruction, during the EASY 01 mission he and his crew displayed a lack of discipline. In what must surely count as an exceptional and aggravating factor,

the pilot was also the acting commander of a team of men who were themselves suitably qualified. Low-level training flights of this kind are conducted by crews and pilots who have undergone diverse and tough selection procedures, have succeeded in passing a sequence of demanding examinations and assessments that measure their progress, gauge their level of instruction, their technical and professional skills and evaluate other important qualities such their psychological and physical strength and behavioral predisposition.

This holds for all pilots and crews of modern air forces, especially those professionals qualified as « combat ready », who have reached such a high level of preparation and maturity that there can be absolutely no doubting their reliability and credibility. No air force can afford to be tolerant of those who stray from the path of professional conduct and indulge in ostentatious and utterly unjustifiable acts of bravado for their own sake.

The US CIB that conducted the inquiry into the mishap found no particular defects or oversights in the Italian organizational structure, nor any failure by the relevant bodies to fulfill their functions of monitoring flight discipline either in general sense or with particular regard to the EASY 01 flight. But, as we have seen, the CIB did uncover supervisory shortcomings by the US authorities during the preparatory phases of the tragic flight.

Indeed, this failure of supervision was judged to be the weak link in the US chain of command. The investigation highlighted the need to arrange supervisory functions more effectively by creating a new high-level authority, a recommendation made by General Tricarico during his hearing. General Tricarico, whose remarks on the subject met with full approval, declared: « While instruction, knowledge of the rules, and the length of the period of service in Italy are all essential factors for the correct planning and execution of a mission, it is also true that individuals and aircrews must be helped to avoid mistakes. To this end, it is essential to ensure ongoing supervision which must be carried out at several levels to guarantee that information is passed to aircrews and those in charge of the various operating sectors and that it is clearly documented. In short, while supervision must focus on the planning and execution of individual activities, it must be based on the knowledge, experience and sense of responsibility of an entire organization.

While it is true that nothing and no one can ever guarantee complete protection from reckless conduct by a single pilot in flight, it is also true that the best prevention is the adequate supply of information and supervision, and that this can be secured only if the commanding officer takes direct responsibility.

It was also noted in the course of the hearings that the Italian Air Force had committed itself on a national scale to improving the organization and increasing the powers of the Flight Safety Board, which is the agency responsible for dealing with all issues regarding flight safety for the armed forces and government-operated aircraft. The Committee also gathered details about the activities conducted as part of the ongoing investigations, about the inquiries into accident

reports and accident prevention. The Committee also took stock of the thorough and continuous effort of flight units to refine and monitor preventative measures, an effort that is evident from the number of spot checks and surprise inspections they carried out.

The task of commanding is of fundamental importance and inseparable from flight safety. In view of the vigilance, alertness and rigor that the exercise of authority demands, command action will be all the more beneficial and effective at averting risk if it is performed scrupulously, attentively and incisively during the preparatory phases. This can be accomplished through education, supervision and control, and by the judicious and timely adoption of measures contributing to the achievement of ever higher standards of professionalism. Authentically professional standards will be reflected in the manner in which an organization delivers its services and succeeds in dedicating full attention to the systematic, meticulous and effective observance of the various regulations in force, whether they refer to technical and logistical matters or flight discipline during operations or training.

As far as Italy and the Italian Air Force are concerned, the command structures in charge of the various Air Force units paid particular attention to the problem of enforcing observance of flight regulations and various other questions relating to flight safety, the need for vigilance in command and the supervision and control of the conduct of aircrews. The documentation released by General Fornasiero at his hearing on 30 March 2000 and the evidence given to the Committee by other military authorities were proof of the special commitment of the Italian Air Force to dealing with these issues.

The files include several directives issued by the Chiefs of the Defense Staff on the subject of the « prevention of accidents through the enhancement of the quality of command ». They also include similar recommendations issued by the Air Staff to Air Force units, which are periodically reminded of their duty of scrupulous observance of current regulations on military flight activities and noise pollution. The directives also draw particular attention to the objections and protests of civilians and local authorities.

As regards the United States, the US component of the Tricarico-Prueher Bilateral Commission drew inspiration on how to improve prevention, supervision and command activities from these very directives. The US members of the commission recognized the essential validity of the recommendations, which they therefore adopted as the basis of the measures that the Tricarico-Prueher Report would later submit in the form of a joint proposal for improving flight safety and enforcing proper flight conduct in Italian territory.

5. LOW-LEVEL FLIGHT

5.1 Low-level flights and their impact on the civilian population

Low-level flight operations affect the north-east of the country more than elsewhere, especially Trentino-Alto Adige, where the flight

paths pass both over mountain zones and built-up areas in the valleys.

For the purposes of this report, we shall limit ourselves to looking at the phenomenon of low-level military training flights by Italian allies and the Italian Air Force itself, which have long been a source of public concern in the affected areas.

Training activities by military aircraft, unlike acrobatic air displays, are not intended to be spectacular and because of this are treated with greater diffidence. Military flights are a major concern for the civilian population and have elicited protests from local authorities.

As regards accidents and dangerous situations, the statistics indicate that a considerable number of reports have been filed regarding a wide range of different types of military and non-military helicopters and fixed-wing aircraft whose performance levels are generally low.

For the most part, the causes of such incidents have been related to technical, meteorological, environmental and, of course, human factors. Fortunately, the number of incidents ascribable to intentional misconduct, aggressive behavior or recklessness is small.

The question of the impact that low-flying aircraft have on the civilian population is neither new nor exclusively Italian. Between 1987 and 1989, owing to political contingencies, an increase in the number of low-level flights between West and East Germany led to around 100 incidents. In 1990, this prompted the newly reunified Germany to raise the altitude limit for low-level NATO flights from 150 to 300 meters. In the same year, Belgium, in a bid to counter the excessive noise generated by low-level flights, also banned low-level flying by NATO aircraft, though it left the minimum altitude for its own military aircraft at 80 meters. In short, the problems of safety and environmental impact are relevant elsewhere in Europe as well.

Trentino-Alto Adige has, unfortunately, also experienced other destructive incidents besides the Cermis disaster. Two of these mishaps, which were similar in nature, jeopardized the security of civilians. The first occurred on 30 August 1961 when an aircraft belonging to the French Air Force sliced through the drive cable of the Mont Blanc-Aguille du Midi-Punta Hellbronner cablecar installation causing three gondolas to fall and killing six people. The passengers in the other gondolas, which remained suspended in mid-air, had to wait an entire night before they were rescued. The second accident, frequently referred to by the Committee, did not cause any deaths. On 27 July 1987, an Italian Air Force aircraft cut through the cables of the Falzarego installation, but the gondolas were parked in their stations. The two members of the aircrew parachuted to safety to the banks of the Cellina river. The number of protests and the level of public interest at the time was low. It took the catastrophes of Ramstein (8/26/88) and Casalecchio del Reno (12/6/90) to prompt more widespread and energetic protests against acrobatic flying and training flights in general.

As regards the environmental issue, a search through newspaper archives turned up a protest dated 13 February 1995 from the International Commission for the Protection of the Alps (CIPRA), which refers to noise pollution and the two/three million overflights

a year in the Alpine area, including high-altitude flights, low-level flights, hang gliding, paragliding and helicopters. According to CIPRA, the noise pollution was especially damaging to wildlife.

The Cermis mishap marked a watershed between two periods: the first was marked by isolated protests and muted expressions of concern; and the second, which can be dated from the catastrophes of Ramstein and Casalecchio, saw a wave of indignation and growing demands for safety and respect for the environment.

In carrying out its inquiry, the Committee remained constantly aware of the great impact (emotional and otherwise) that the Cavalese catastrophe and the phenomenon of low-level flying has had on the Italian public.

The reports and testimonies compiled by the Committee paint a picture of life in the Alpine valleys that was been massively disturbed by the continuous overflight of military aircraft at low and very low levels. At the same time, the Committee found that local people maintained an essential faith in the institutions responsible for guaranteeing their safety and health. The Carabinieri, to whom the reports and complaints later passed on the Committee were originally made, were singled out by local authorities and citizens as a point of reference and trust. Giorgio Fontana, a former mayor of Cavalese, personally witnessed an aircraft flying under cableways in October 1981, is the author of two official complaints, one of which was ignored and the other denied by the military command. In a statement, he declared: « The main failing was upstream in the process, because it was here that those who had the power to raise the alarm and intervene in time to avert a disaster demonstrated their total indifference ». Mr. Fontana recalled that locals, especially those dwelling at the bottom of the valley who were most exposed to low-level flights, were fearful of the supersonic bang. He also noted that since 1998, the number of overflights had increased. He remarked that the negative response to his second complaint from of military authorities , who denied the existence of flights over Cavalese, « upset us, and made us look like idiots ».

An unfortunate tendency to underestimate the phenomenon emerged along with evidence of a growing divergence of opinion between military and civilian institutions, and between the military and local people. As Werner Pichler, representative of the *Comitato 3 febbraio*, pointed out: « In reply to a question raised by Councilor Sergio Vanzo, the local government declared that it was aware of the fact that aircraft were flying below the cables of the cable car, but since it had already lodged a formal protest and, unfortunately, received no response, it was reluctant to lodge further complaints. This was the reply we got from the Town Hall. » Mauro Gilmozzi, Mayor of Cavalese, took it upon himself to voice the disappointment of the local institutions. He noted that « the disasters waiting to happen are not just those resulting from low-level flights, but rather any accident for which the cost of compensation is lower than the cost of the preventative action that might be taken. » Mr. Gilmozzi added: « The flights that took place over and over again, mostly during the three summer

months (the troublesome flights were always in summer rather than winter), were for the most part national, legal, authorized and at the agreed altitudes, and so it was not possible to lodge protests because they would have done little good. » He continued: « When we made appeals against these flights, which passed half way up the valley and produced enormous noise, causing anxiety and alarm among local people, we were always met with a response along the lines of: 'There is noting illegitimate here; we must measure the needs of defending the State against the fears of local inhabitants, who are, perhaps, kicking up a fuss over nothing.' Gilmozzi pointed out, however, that « in our area, flying at an altitude of between 300 and 600 meters means flying half-way up the sides of the valley, waking up children, rattling windows and scaring the people who live there »

The testimony of 14 Italian eyewitnesses submitted to the Camp Lejeune investigators enable us to get some idea of the emotions of those who, though unaware of what had happened, witnessed the very low-level flight. On 3 February, Barbara Demattio was babysitting in Castel di Fiemme. The Prowler passed so close to the balcony outside the window of the house in which she was staying that she could not even see its full wingspan. « The windows shook and the child immediately woke up and started screaming, » she recalled. Demattio reported that she had managed to see the rest of the flight and even saw the gondola swinging after the impact. « I did not see the impact itself because the jet was obscuring my line of vision, but I did notice immediately that one of the three cables of the cable car was missing. » Marco Vanzo, a hang-glider, recalled how he was with a friend near the Cavalese sports ground, « when I saw a military jet coming towards us. To avoid the hill we were on, which is called Colle delle Streghe, the aircraft had to bank sharply to the right until it was flying at an angle of 90 degrees perpendicular to the ground. We were afraid that it was going to hit us. » The other witnesses include Andrea Mover, 16, who was at home in San Michele d'Adige, Mario Bleggi (on the outskirts of Ciago), four skiers on the slopes of Lusan, Giuseppe Ciresa in Salorno and Moreno Vanzo, who was working on the roof of a house in Capriano. All witnesses reported being very afraid at the time. Siglinde Dejaco, who was skiing with her son on the Lusan slopes, recalled that she had been so alarmed that she instinctively threw herself down in the snow to avoid being hit. Patrizia Pichler also felt so threatened when the jet flew over the ski slope that she curled herself up in a ball. She remembers fearing the plane would smash into the village church. Alfred Oberhauser, 26, a native of Lusan, saw the plane fly over his village at so low an altitude that, « for a moment I was afraid it was going to crash. » Giuseppe Ciresa confirms that the plane flew low over built-up areas. He recalled how he was stopped at a traffic light in Salorno when he saw the plane pass directly overhead. Moreno Vanzo declared: « The military jet passed over my head while I was in the center of the town, and for a moment I had the impression that it was going to end up in Lake Stramentizzo. »

Apart from the eyewitness accounts gathered by the Committee, reports in the aftermath of the tragedy demonstrated that this was no

isolated episode. The first act of the Association of Victims' Relatives, set up in July 1998, was to report the occurrence of new violations by military jets after 3 February. These violations were confirmed by the Carabinieri and municipal police officers. Reports came in from all over Trentino and Alto Adige of recent overflights by military jets. Jets were reported being seen over Margone di Vezzano headed in the direction of the Dolomites of Brenta, over Val di Non, Rovereto, Lake Garda, and so on. The last complaint of a low-level flight over Cavalese dates back to October 1998, and sparked reaction from Hons. Detomas, Olivieri and Schmidt, three parliamentary deputies from Trentino. The fears of the local population were voiced by the local governments of the area, including the government of Alto Adige, which has some experience in this field, having filed its first complaint as far back as 27 June 1992. On 27 March 1998, not long after the Cermis mishap, the President of the Provincial Government of Bolzano, Luis Durnwalder, called on the Minister of Defence Beniamino Andreatta to extend the ban on military flights to include Alto Adige.

On 4 February, the day after the accident, the Provincial Government of Trento approved motion no. 139 calling on the Italian Government to bar all military forces present in Italy from carrying out low-level flights over built-up areas. On 5 February 1998, the Conference of the Presidents of Regions and Autonomous Provinces declared that « defense policy considerations must not override the rights of local communities ». On 9 February, the President of the Province of Trento, Carlo Andreotti, urged the Prime Minister Romano Prodi and Minister of Defence Beniamino Andreatta to make all ordinances regulating military flights known « to all Powers operating them ». He also asked the Minister to notify the military powers in question of the initiatives that need to be taken and, if necessary, « arrange specific meetings to verify the state of implementation of the measures taken ». On 13 March, Minister Andreatta informed the Province of Trento that he had outlawed flights over Val di Fiemme and had doubled the minimum safety altitude. Cavalese is at the center of the prohibited area, which extends as far northwards as Bolzano. The minimum safety altitude for the entire area of the Alps was set at 2000 meters, compared with 1000 feet for the rest of the national territory.

Even so, the overflights did not stop. The first reports of low-level flights over Margone di Vezzano and Folgaria on 25 March 1998 turned out to be unfounded. The reports in fact referred to flights which, as the Italian Air Staff determined, took place at regulation altitude. In early July, however, reports came in of flights over Torbole and then Alto Garda. Local protests were forwarded to the Ministry of Defence. The Provincial President, Carlo Andreotti, alerted the Ministry that low-level flights had taken place on 1 October 1998 over Fondo and built-up areas in Upper Val di Non. More precisely, a dispatch from the Trento prefecture spoke of three jets passing over Fondo, four over Molina di Ledro and two over Cavalese. Mrs Dora Zanna told reporters: « I was feeding my child – I live in a second-floor garret apartment in the center of Fondo – when everything started to vibrate.

When the windows suddenly started shaking terribly, I thought it was an earthquake. I looked out the window and saw these black airplanes heading straight for my house, as if they were going to crash into it. They must have just missed hitting the rooftop. They did this twice in a row: it was sheer madness. And it's not as if we weren't used to it, they had passed overhead the year before as well. But they had never before come down to the rooftop level. » Other witnesses spoke of a trail of exhaust fumes left behind by the two jets. Protests, though more muted this time, continued. The last group of complaints referred to a fighter which flew over the built-up area of Mattarello, a village in the district of Trento, on 7 April, and two F16s or Tornadoes that made low-level flights over Ceole on 27 September 1999.

In the course of their inquiries, both the Committee and the Public Prosecutor of Trento found that the Italian Air Force felt that the many reports filed in the past were made too late and, above all, were too imprecise. The Air Force argued that this made its investigative work too demanding, and explained that since it could not base its investigations on objective evidence, it was forced to doubt the credibility of the complaints. This points to an evident need to ensure that the monitoring of flights by Italian and foreign military aircraft over Italian territory is careful, thorough and subordinate to a comprehensive and continuous system of command backed by instruction in accident prevention. The regulations governing flight operations also need to be assessed not only to guarantee safety, but also to reduce noise pollution and environmental impact by as much as possible and thereby safeguard the well-being of local communities.

Regarding the necessity for low-level training flights, both the Chief of Defense Staff and the Minister of Defence, Beniamino Andreatta, expressed the opinion that, « low-level flying is recognized at all levels as a training prerequisite, and is closely tied to ensuring flight safety. It is an incontestable fact that in any profession, training is synonymous with security, especially if the profession involves a high level of specialization such as the piloting of a fighter jet. This generally accepted principle forms the basis of the aviation activities of all the NATO states, as well as those of other countries that are not members of the alliance. »

All the same, it seems clear that if the specific safety requirements of military flight operations are to be successfully reconciled with civilian safety, strict controls must be in place to enforce compliance with rules and regulations, and the authorities must be willing and able to prosecute anyone who contravenes them.

6. ANALYSIS OF ACTIONS TAKEN AFTER THE DISASTER: JOINTLY-AGREED MEASURES AND THE TRICARICO-PRUEHER REPORT

The following sections deal with the revision of flight rules and procedures in Italy, the measures introduced directly after the Cermis mishap, and the measures introduced at a later stage as a result of the

conclusions and recommendations put forward in the report of the Tricarico-Prueher Bilateral Commission This is followed by comments on aspects that seemed to merit particular attention.

6.1 Measures adopted after the incident

Very shortly after the mishap, the Italian and US authorities introduced a series of measures with immediate effect, some of which referred to operational practices, others to flight safety. The most noteworthy were those that: introduced new restrictions on minimum flight altitudes; set forth new rules for the maintenance of radio links with Italian air traffic control; stipulated the use of Italian charts for flight planning; and instituted pre-flight information briefings with Italian air traffic control. For the purposes of examination, it is useful set out the complete the list of measures as they appeared in the Tricarico-Prueher report.

As a first step, with the intention of safeguarding civilians, Italian government authorities tightened the rules on low-level flying by imposing further limitations. The minimum altitude for flights over the entire Alpine region, which had been 2,000 feet (approximately 600 meters) above ground level, was raised to 13,000 feet (approximately 4,300 meters) above average sea level for an area extending about 30 km around the town of Cavalese, delimited by specific geographic co-ordinates. Meanwhile, the minimum altitude for the rest of the national territory was doubled, excepting training zones over the sea. The previous minimum altitude of 500 feet AGL for low-level flying in Italy was increased to 1,000 feet. The minimum for other selected areas, used exclusively for operational low-level training flights, was increased from 250 to 500 feet.

It should be said in respect of these restrictions that they were devised and imposed for the sole purpose of reducing the environmental impact of low-level flights. From a safety perspective, the previous limits were already adequate.

A review was also made of the tactical training areas and other areas set aside for low-level training activities. The review took account of the population density of the areas in question and the aim was, once again, to reduce the distress to the local population by as much as possible.

At the same time, it was also stipulated that during low-level flights aircraft had to remain in radio/radar contact with Italian flight controllers as much as possible.

In the past, radio/radar contact consisted for the most part of sending position reports from a few significant points along the flight route, sufficient to insure that flights were proceeding as planned. The new requirement, therefore, is not only innovative but also marks a general improvement. The fact that this new obligation exists, however, does not mean it is always feasible to keep track of an aircraft for the entire duration of its mission, because the topography of certain mountainous zones makes constant radio and radar contact impossible.

The Italian Air Force has nonetheless taken steps to enhance the effectiveness of its flight monitoring systems wherever possible. As the present Chief of the Air Staff explained during his testimony, the Air Force has introduced a system for handling reported sightings of military planes from anywhere in the country. In this way, citizens who believe they have witnessed unlawful flight maneuvers have the opportunity to help make sure they do not recur. The aim of the system is to accord real credence to reports of violations. As we have seen, the effectiveness of reports and complaints in the past was limited by the difficulty of gathering objectively verifiable evidence. Thanks to the new methodology, complaints are forwarded more rapidly, and so the subsequent investigations are made with less delay.

A directive to enhance the reliability of reports was drawn up and introduced on the basis of the experience gained in recent years. The directive provides for a new channel layer of reporting based, where possible, on more reliable evidence backed by substantiated detail from citizens or law enforcement agencies who report military flights that they believe to be in violation of the regulations. The United States authorities introduced a series of modifications to their procedures after the mishap, seeking to ensure their aircrews are fully aware of any altitude restrictions in force. The modifications can be summarized as follows:

the formalization of control procedures to ensure the accurate distribution of flight information by obligating commanders to sign the relevant Flight Crew Information File (FCIF);

the systematic checking of procedures by introducing a « read-and-initial » procedure for crews to demonstrate that they have read the FCIF (so that pilots are not allowed to fly unless their signature is on the FCIF), and by means of periodic spot checks to ensure that updates and variations are properly observed;

the introduction of obligatory and standardized instructions on low-level flight by means of special briefings for any crew that is about to be deployed;

the formalization of standard operating procedures that include greater detail on local rules and regulations. The purpose of this is to ensure that commanders and crews are better informed than they have been hitherto of the procedures, regulations and any updates made to them.

The measures outlined above are all essential if we consider that, in addition to the gaps they contained, the previous procedures were followed infrequently or not at all. Procedures for certain aspects simply did not exist. Rather than mere modifications of existing regulations, then, the new measures are entirely innovative and have rectified various lapses and omissions in the USMC, and, particularly, the VMAQ-2 chain of command. Taken together, the omissions and defects of the old system contributed considerably to the failure of VMAQ-2 to discharge its duties of supervision as it should.

To enhance aircrews' familiarity with the routes they fly, while also paying heed to the risks and dangers of flights, the following measures were also taken:

only aircraft belonging to the 31st Fighter Wing permanently stationed in Aviano are authorized to engage in low-level training flights. New criteria for the planning and execution of these flights by the 31st FW were set down;

US aircrews must use Italian maps on a scale of 1:500,000 as their source of information when planning flights. They are also required to undergo special briefings on low-level flights from Italian air traffic controllers and, before any mission, must certify that they have looked over all the material in the briefings and are aware of all pertinent limitations and warnings set out in the relevant NOTAMs.

Without examining the question of whether it was correct to restrict low-level activities to the 31st FW alone, we can say that the other measures were necessary and appropriate. It should be noted that Italian regulations (i.e. the BOAT manual and SOP ADD-01) already stipulated the use of navigation charts on a scale of 1:500,000 published by the Italian Air Force's Cartographic Information Center (CIGA) rather than those published by the International Civil Aviation Organization – Italian Alpine Club (ICAO-CAI).

Finally, to improve the administration of operations by American commanders, the US authorities decided to:

hold obligatory briefings for wing commanders before any deployment to make certain that they have full details about what sort of training activities are planned and how frequently they will be performed;

have the Marine Corps Command formalize an « operational risk management » (ORM) procedure, in keeping with the current practice of other armed forces, which will include an ORM assessment for each flight that will be submitted for approval to the appropriate level of authority in the chain of command;

examine the mission flight recorder after every low-level mission to ascertain that the regulations and restrictions were complied with. This examination must be carried out by third parties (i.e. outside the aircrew's unit).

As they are designed to amplify the factors contributing to general safety during training, the measures above can be considered as constituting an apt response to and an improvement on previous practices.

6.2 Subsequent measures: the Tricarico-Prueher Report

The Italy-US Bilateral Commission

One year after the Cavalese catastrophe, the need to review the adequacy of international and domestic laws on flight operations and

safety by US military forces operating in Italy prompted the United States and Italy to institute bilateral talks on the issue. At a summit meeting in March 1999, the Italian Prime Minister Massimo D'Alema and the US President Bill Clinton concurred on the need to carry out a joint review of the existing measures, rules and procedures regulating low-level flights in Italy with a view to assuring maximum safety during US training flights. Accordingly, on 9 March 1999, the Italian Minister of Defense and the US Secretary of Defense, acting with the mandate of their respective leaders, instituted a Bilateral Commission whose task was to consider what corrective steps might be taken to enhance flight safety, determine whether these steps proved adequate to their purpose and then decide whether further steps were necessary. The commission had to ensure that American operations were rendered compatible with safety requirements while bearing in mind the shared obligations and commitments that NATO membership entails. The commission consisted of two delegations of ten members. The Italian delegation was headed by General Tricarico, the American delegation by Admiral Prueher. The commission began work on 15 March 1999 and produced its final report on 13 April.

Conclusions of the Tricarico-Prueher Bilateral Commission.

The commission recognized that while the rules and procedures regulating low-level training flights in Italy must guarantee safety, they must also accommodate the necessity for military units to be operationally ready at all times and allow pilots to maintain their professional skills. The commission also recognized that the rules and procedures must be compatible with NATO obligations and bilateral commitments. With these prerequisites in mind, the commission drew a number of conclusions, the principal ones of which we can summarize thus:

the primary guarantor of flight safety is unit/command leadership that demands thoughtful, disciplined adherence to proven procedures;

operational training, including the safe conduct of low-level training, in the environment in which forces will be operating is necessary to maintain unit readiness and aircrew currency in support of potential bilateral or NATO missions. Although US units do not deploy to Italy for the purpose of acquiring low-level flying proficiency, they must be able maintain proficiency while deployed to Italy. Consequently, Italian Defense Staff will take into consideration, on a case-by-case basis, the training requirements of US units;

operational and safety procedures were in place and were sufficient at the time of the accident, but knowledge of and adherence to those procedures were incomplete. Of primary significance is that there was no established system to verify that deployed squadrons received and read all relevant flight-related information.

The Tricarico-Prueher Commission further concluded that the US command and control relationships before the incident were complicated and somewhat unclear, and may have contributed to an environment in which insufficient emphasis was placed on familiarity with and adherence to established flight procedures. The US had since reviewed and modified command and control relationships of US squadrons deployed to Italy, clarifying host-tenant relationships. Among these modifications were those to operations order (OPORD) 4247 issued by the US Commander in Chief Europe (CINCEUR) regarding the participation of the USA in the NATO Stabilization Force (Operation Joint Force), and by the Memorandum of Agreement (MOA) dated 2 December 1998 between USAREUR and USAFE regarding the role of the 31st FW. In particular, it was noted that before the accident, the VMAQ squadrons deployed to Aviano took their orders from COMSTRIKEFORSOUTH (CSFS) when acting under the NATO rather than the US chain of command. CSFS had oversight for NATO tasking, but responsibility for US-related activities, including training missions, appeared to lie with CINCEUR This US command structure was not sufficient to provide adequate oversight. After the Cermis mishap, it was decided that as far as operational tasks were concerned, units stationed in Aviano (including the VMAQ squadrons) should be accountable to MARFOREUR (a component of EUCOM). At the same time, the modifications to OPORD 4247 further established that:

host units will provide all deployed units with comprehensive information regarding all flight procedures and regulations;

all deployed units will follow host unit procedures when these procedures are more restrictive than Host Nation or service procedures;

host units and deployed units will establish written agreements for procedures for both training and operational missions.

The relationship between VMAQ-2 and the 31st FW at the time of the accident was conducted on the basis of a « host-tenant » relationship, but lacked formal guidelines describing the obligations and responsibilities of each unit. After the mishap, the 31st FW was given a larger and more visible leadership role. This greater role was confirmed in the Memorandum of Agreement (MOA) of 2 December 1998 between USAREUR and USAFE. The memorandum specifically assigned the 31st FW the task of liaising between the Italian installation commander and USAREUR. It also specified that all flight activities should be supervised by the Deputy Commander of Operations of the 31st FW, who would be the sole point of contact with the Italian Air Force for the management of operational issues at the Aviano base. According to the Tricarico-Prueher Commission, the limited but well-defined restructuring envisaged in the MOA between USAREUR and USAFE and the recommendations for a designated US authority would facilitate the creation of a workable system for overseeing deployed units and forestalling confusion in the operating chain of command.

The Tricarico-Prueher Commission also found that:

command and control arrangements between Italy and the United States are regulated by numerous bilateral and multilateral agreements including the North Atlantic Treaty, the NATO SOFA, the 1993 MOU relative to Aviano and the supplementary technical arrangement of 1994. These agreements set down the basic command and control agreements and affirm Italian sovereignty over its airports and airspace. The modified procedures for the coordination of tasks and responsibilities between Italy and the United States spelt out the powers of Italy to enforce flight safety rules;

the corrective measures for flight operations and safety introduced immediately after the Cermis incident were fully appropriate to ensuring the safety of flights by American forces in Italy. Once they have been supplemented by the recommendations of the bilateral commission, and then institutionalized and standardized throughout Italy, the measures will make US flight operations even more consistent with Italian safety requirements and the shared NATO commitments and obligations;

an important objective of the post-accident regulatory changes has been to establish a clear line of accountability for the quality control in flight planning. This objective is central to the proposal to establish a Designated US Authority at each airbase in charge of disseminating comprehensive information to American units in Italy, coordinating with the Italian Base Commander, receiving certifications from unit commanders attesting that their air crews are both mission-ready and aware of the regulations in force in the relevant zone.

In addition to the measures introduced by CINCEUR and the American military, the commission made a series of recommendations designed to ensure that air crews operating in Italian aerospace comply with the procedures. The new measures standardize procedures and emphasize the need for Italian approval for all operations inside its sovereign air space.

We should also note that the Bilateral Commission examined the situation obtaining at the time of the accident from a variety of perspectives: legal, procedural, operative, training-related and organizational. It focused on the responsibilities of the United States and, in common with the Command Investigation Board (CIB), its conclusions highlighted supervisory errors in the chain of command. With respect to the investigation into this specific aspect and the inquiry into the chain of command in general, the CIB limited itself to making some rather brief and generic observations regarding possible failings, notably that the US chain of command was too complicated, unwieldy and imprecise (for national and NATO operations alike). The Tricarico-Prueher Commission, on the other hand, looked at the same issue in more detail and produced an in-depth examination of the pertinent issues. The commission learned from US sources that the body with command authority over VMAQ-2, namely CSFS, was responsible for oversight for NATO tasking, but not operations of a

national character, including training. It turns out that responsibility for US operations apparently resided at CINCEUR level. The adverb « apparently » is symptomatic of the absence of transparency. It signifies that other levels or authorities might, or might not, also have been involved, and leaves open the possibility that CSFS might have had some part to play, albeit a marginal and certainly unclear one. In any event, on the US side it was established that the structure of relationships within the US chain of command in the period preceding the mishap was insufficient to guarantee adequate oversight surveillance and control, a conclusion shared by the Bilateral Commission.

It was also possible to establish even more clearly that the relationship between the VMAQ-2 squadron and the 31st FW was based on customary « host-tenant » practices, but lacked the basis of a formal agreement for the division of responsibilities and lacked guidelines that set out the obligations of each squadron/unit and the reciprocal relationships between different units. On the basis of the evidence gathered in the course of further investigations and the verifications and the disclosures that they led to, the Tricarico-Prueher Commission was able to pinpoint and define a series of measures aimed at rectifying the defects in the US system of organization and eliminating other aspects capable of causing uncertainty or ambiguity. So, although the measures introduced in the immediate aftermath of the incident were already considered adequate, the Bilateral Commission consolidated and reinforced them further with these other improvements.

Recommendations of the Bilateral Commission.

After investigating the issues within the scope of its mandate, the Tricarico-Prueher Commission underscored the close link between flight safety and professionally conducted flight operations. The Commission concluded, as did the US Marine Corps Command Investigation Board, that the accident was caused by aircrew error, and that supervisory error occurred within the aircrew's chain of command. Accordingly, the Bilateral Commission provided seven recommendations (together with details and explanations), which are briefly summarized below.

New procedures for US low-level flight training

Low-level training flights (referred to as very-low-level flight [2000 ft. AGL and below], or « BBQ », in the BOAT manual) must follow the following procedures:

in accordance with current bilateral and NATO agreements, US units permanently based in Italy shall be authorized to carry out low-level missions up to the maximum limit of 25% of authorized weekly flights; i.e., those certified by the Designated US Authority with the agreement of the Italian base commander;

non-permanently based units will be authorized to carry out low-level flights only within the context of exercises authorized by the Italian Defense Staff and where such flight activity is in keeping with the objectives and procedures of the exercise itself; or when necessary for training aimed at carrying out air operations for which the units in Italy are based, and when certified by the Designated US Authority and authorized by the Italian Defense Staff;

units based on carriers and amphibious ready groups will be authorized to fly low-level flights only when certified and approved in accordance with pre-established procedures, and shall in all cases require authorization from the Italian Defense Staff.

An extremely important feature of the Tricarico-Prueher recommendations is the decision not to allow any further low-level flights over Italian national territory by the foreign air force units (including US units) unless they are permanently based in Italy. Exceptions to this rule are possible, but they must be approved by Italian authorities, who will decide on a case-by-case basis. Moreover, even units that are permanently stationed in Italy have had such flight activity significantly restricted. In addition, as the Chief of Defense Staff noted in his hearing before the parliamentary Committee, units temporarily stationed in Italy that have been authorized to carry out low-level flights may not in any case do so over the Alps.

Designated US authorities

It was agreed that a US commander (for example the Commander of the 31st FW at Aviano) will be appointed at each Italian airbase as the Designated US Authority responsible for overseeing and monitoring compliance with American and Italian flight safety regulations. US units may conduct flight operations only after receiving certification from this authority. The following specific arrangements have been put in place:

US unit commanders will be responsible for certifying to their Designated US Authority that unit aircrews are qualified for their assigned operational and training missions;

the Designated US Authority will review and submit the daily flight schedule to the Italian airbase commander, certifying that the mission has been planned consistent with Italian flight regulations;

the Designated US Authority will coordinate with the Italian base commander to ensure the local procedures are consistent with Italian flight safety regulations;

the Designated US Authority will provide comprehensive information regarding US and Italian flight regulations to all local US units;

the Designated US Authority will certify to the Italian base commander those units that are qualified to perform low-level training.

Liaison and/or exchange officers

It has been agreed to assign Italian and US liaison and/or exchange officers with selected US and Italian units to optimize the flow of information and facilitate communications. The Italian liaison and/or exchange officers will assist US units in understanding Italian flight procedures, assure the complete and efficient flow of information and ensure that the units concerned receive the relevant Italian publications and materials.

Flight Safety Board

It has been agreed to appoint US flight safety representatives, who will receive indoctrination briefings from by Italian flight safety officers and will then meet periodically as a Flight Safety Review Group with the Italian Flight Safety Board Representative to discuss issues related to regulations, special circumstances and sensitivities inherent to the Italian flight environment. The US Flight Safety Representatives will review annually the findings and recommendations of the Italian Flight Safety Board with US units located in Italy.

Flight information web site

There are plans to build an information archive using Internet-based technology to give near real-time access to the most current theatre-specific information to aircrews prior to deployment.

Finally, two other recommendations were made for the periodic review and institutionalization of the new procedures. The first recommendation is that the procedures should be open to review in order to ensure that all relevant factors are considered and incorporated. The second is that the new procedures should be taken into consideration during the current review of bilateral agreements between the USA and Italy, to be formalized as technical arrangements so that the agreements may better reflect the real needs of the two countries.

To summarize briefly, the critical review of the rules and procedures for the execution of training and operational activities by US forces based in Italy carried out by the Bilateral Commission led to the conclusion that while the rules and procedures in force at the time of the Cermis mishap were adequate with respect to flight safety, the level of awareness and compliance by United States personnel was incomplete and therefore defective. For example, there was no system in

place to ensure that US units deployed to Italy had received and read all the information pertinent to flight activity. The corrective operational and safety measures introduced by the US authorities after the incident are analogous to those that the Italian military had already introduced, and were appropriate to creating an additional margin of safety. The corrective measures included a series of new restrictions on minimum altitudes, a requirement for radio contact with Italian air traffic control agencies, the suspension of flights by air force units not permanently stationed in Italy, the use of specific charts for flight planning and the holding of preflight briefings with Italian air traffic controllers.

The inquiries carried out by the Bilateral Commission also confirmed the existence of weaknesses and confusion in the American chain of command and control at the time of the incident In particular, the Commission concluded that there were failures of communication between the Aviano-based 31st FW and squadrons temporarily posted to Italy such as the VMAQ-2 Squadron, and between the VMAQ-2 and the military commands to which it reported. This lack of clarity generated confusion about the guidance and oversight responsibilities of the authorities in charge of the units, the responsibilities and obligations of the units themselves, and the relationships between the various units in matters pertaining to operational and training activities.

The Bilateral Commission also found that US authorities had since reviewed and modified the command and control relationships of American units deployed, or about to be deployed, to Italy by clarifying host-tenant relations and instituting the consequent corrective measures.

The Bilateral Commission also underscored the validity of the measures adopted on both the Italian and American sides, and put forward its own recommendations. From an organizational perspective, one of the most important recommendations was for the appointment of a Designated US Authority to each Italian airbase hosting US units. The Designated Authority will be responsible for certifying that the flight activities of US units in Italy are planned and carried out in full compliance with current Italian regulations and laws. The new system has helped better define and strengthen the role of the Commander of the 31st FW with regard to temporarily deployed units. The Commander's level of involvement, and hence level of responsibility, has become more substantial and visible. The new figure of the Designated Authority has not impinged upon the clear prerogatives and powers of other commands, nor altered the nature of the relationship between the US military and the Italian base commander. The issue of responsibility was touched upon frequently and is evident in the details of some of the measures introduced, and was an issue especially relevant to all US personnel, aircrews and pilots stationed Italy. The measures laid considerable stress on the need to make US personnel more responsible for their actions by obliging them to keep abreast of new developments and information on flight activities, and ensuring that they are constantly aware of the fact that they are based in Italian

structures, operating in Italian airspace and therefore subject to rules accepted by both countries, who recognize the absolute sovereignty of Italy.

Another important novelty was the appointment of liaison officers, especially Italian officers posted to US units, and the introduction of joint activities for the exchange of information regarding flight safety.

The Bilateral Commission presented its recommendations in a precise and detailed manner, and they were implemented by means of the revision and/or the drafting of detailed formal proceedings that supplemented existing rules and measures introduced after the incident. The adoption of the Commission's recommendations tightened the existing regulations and procedures for US flight operations in Italy, especially low-level flights, adding clarity, substance and incisiveness.

The hearings held by this Parliamentary Committee found that the Tricarico-Prueher recommendations had almost all been implemented by the military authorities, and will be taken into account in future technical arrangements. In their simplified version, technical arrangements, which are subject to international law, may be considered obligatory and binding regardless of their approval by Parliament.

The hearings before the Committee engendered the feeling that the Tricarico-Prueher report, which was largely the result of the proposals of the Italian delegation, filled a number of gaps that had remained in spite of the adoption of regulations to deal with them. Even so, certain aspects still have to be cleared up, a task that may be accomplished during the drafting of the technical arrangements, which will take on board the recommendations made by the Tricarico-Prueher Commission. We refer, for example, to the system of categorizing flights. The specification of spatial and temporal restrictions and the characteristics of flights underscore the importance of establishing whether aircraft that fail to respect the recommendations of the Commission are on « official duty » as defined by the SOFA. It is also important to establish the status of US military aircraft that are present in Italy as a result of NATO membership but operate outside NATO planning procedures while operating under US rather than NATO command. Obviously, a response to the effect that this sort of exemption to Italian rules cannot be contemplated will have important consequences both as regards the question of responsibility and the exercise of civil and criminal jurisdiction over the parties responsible. It is therefore clearly necessary to establish what is meant by « official duty » in this context.

There is also a clear need to arrive at a better definition of the powers of Italian commands to intervene, impede and even suspend US activities if a mission fails to comply with the limits and operational conditions described above. It is to be hoped that Italian commanders will be granted sufficient and immediately effective executive powers of intervention because this is the only way to make them responsible for enforcing compliance with flight regulations and affirm Italian sovereignty over Italian airspace and territory.

PART VI

CONCLUSIONS AND PROPOSALS

1. CONCLUSIONS AND PROPOSALS CONCERNING THE PRINCIPAL ISSUES TO EMERGE FROM THE COMMITTEE'S WORK

Having conducted full and complex investigations and examined the results of its analysis of the various issues dealt with in the present report, the Committee, in conformity with the tasks assigned to it in Article 1 of the resolution of institution, formulated a number of conclusions and proposals.

1.1 The role of the judiciary

Before proceeding with an examination of the issues that emerged, the Committee feels it is only right to acknowledge the conscientious investigative work into the circumstances of the mishap carried out by the judicial authorities, especially the Public Prosecutor's Office of Trento and the Military Court of Padua, which the Committee drew on extensively. However, we must also note that in the years before the Cermis catastrophe the judicial authorities tended to underestimate the seriousness of the phenomenon of low-level flights and failed to make sufficient effort to investigate repeated reports of dangerous, unlawful flights. Further, the Committee detected a certain resignation in the face of the failure of the US military authorities to co-operate fully, and a pervasive belief that the US military would certainly claim a right to reserve jurisdiction.

1.2 The responsibility of the aircrew

That said, there is no doubt that the terrible catastrophe that led to the death of 20 people when the EA-6B aircraft sliced through cables supporting a gondola on Mount Cermis was, as analyzed in Part IV of this report, the result of the aircrew's systematic violation of the flight rules that they were supposed to be following for that training mission. The responsibility of the aircrew was established on different occasions by Italian and American military investigations, including the hearings before the Court of Trento and the court martial at Camp Lejeune. In particular, we must remember that in addition to straying from the flight plan, the aircrew certainly contravened: the regulation, set forth in a US Marine Corps Order (T&R), of 1,000 feet as the minimum altitude allowed for Prowlers; the regulation of a minimum altitude of 2,000 feet for flights over Trentino, as established in the message issued by the 1st ROC Monte Venda on 16 August 1997 and reported in the FCIF of the 31st FW of Aviano on 29 August; the

regulation minimum altitude of 1,000 feet for any flights in winter months (i.e., from 1 November to 30 April), which, as stipulated in USAF MCI 11-F-16, was also the standing minimum at all times for flight over snow-covered areas; the ban on flying over built-up areas (in this case, Cavalese) at an altitude of less than one nautical mile; the maximum speed allowed in Italian air space, which was 450 knots for flights at altitudes of less than 2,000 feet (at the time of the incident the US jet was traveling at roughly 540 knots, equal to 1000 km per hour); and, finally, the obligation to use updated maps such as those regularly distributed by the Aeronautical Cartographic Information Center (CIGA) to the commanders of the 31st FW, which, unlike US charts, showed the Mount Cermis cablecar installation.

There can be no reasonable doubt that these breaches of regulations, especially the violation of altitude restrictions, were the cause of the accident. Had the aircraft maintained the altitude prescribed by the regulations and the flight plan, it would have posed no safety threat to the Mount Cermis cablecar installation.

Although we acknowledge and respect the principle of primary jurisdiction as provided for in the SOFA and recognize the legitimacy of the trials held in the United States, the sentences handed down by the US courts and the principles of American law, this report can hardly avoid making some observations regarding responsibility for the catastrophe.

As regards the aircrew, a detailed examination of whom is to be contained in Part IV of the present report, it has to be said that they behaved in an undisciplined manner, voluntarily maneuvered the plane in an aggressive way and flew far lower and at far greater speed than allowed whenever local geography permitted it. The psychological attitude of the crew members of mission EASY 01 was such that, judging by the standards of Italian law, it is difficult not to attribute both generic and specific negligence to the entire crew and, above all, the pilot Captain Ashby.

That the crew members of the Prowler conducted themselves in a reprehensible manner is further confirmed by the actions they took after the accident. As the Italian commander at the Aviano base, Colonel Durigon, has testified, when they returned to base, the crew members failed to report the collision with the Cermis cableway, and had not raised the alarm earlier so that help might be sent to the site of the accident. Throughout the subsequent inquiries, the members of the crew showed no willingness to cooperate.

With all due respect to decisions of the American court, this Committee must necessarily acknowledge the existence of a mass of evidence against the aircrew, namely: the meeting called two days after the catastrophe by Major General Ryan, commander of the Second Marine Fighter Wing, at which he upbraided the pilots of the Prowlers, spoke of their reputation for flouting the rules and engaging in low level flying, and announced the institution of an internal inquiry; the fact that the flight was unlikely to have been a real training exercise but was, rather, more akin to a « bonus » flight for its pilot, Captain Ashby, who was about to finish his period of service in Italy and move

on to flying a completely different type of aircraft. It seems as if Captain Ashby had been allowed to make one last memorable flight. This hypothesis is also supported by the fact that the route, which passed over some of the most beautiful mountains in the world, was well-known for being particularly spectacular. The discovery of a private video camera and tapes, and the destruction of the on-board video footage of the flight by Ashby and Schweitzer also point towards the same conclusion. The apparent failure of the low-level warning signal on board is also very suspicious given that the device was later found to be functioning perfectly, suggesting that it was deliberately tampered with so that the crew might continue flying below the regulation altitudes for long stretches without being disturbed by its noise. The particularly reckless maneuver carried out by the pilot in the moments immediately preceding the impact and the comment made by Schweitzer, the navigator, a few seconds before the plane passed over Cermis, when he shouted out « target in sight » (Schweitzer admitted this at Ashby's trial), all suggest that the crew was deliberately aiming to make a show of skill that it wished to capture on video to show off to their colleagues afterwards. On the basis of this evidence, the Committee is of the opinion that the conduct of the pilots may be justly defined as reckless and irresponsible.

1.3 The responsibility of the American chain of command

An analysis of responsibility for the catastrophe does not stop with the conduct of the EASY 01 aircrew. Rather, there are many other questions regarding the entire American chain of command.

During its investigations, the Committee gathered considerable evidence to the effect that VMAQ squadrons habitually engaged in undisciplined flying behavior when operating outside a specific combat theatre. Despite being in breach of safety regulations, low-level flights by the Marine Corps do not appear to have been a rarity. Indeed, it seems that route AV047 taken by the EASY 01 mission was often chosen because it afforded spectacular scenery for the pilots.

The commander of the VMAQ-2 squadron was Lt. Colonel Muegge, who, along with the aircrew, was responsible for procuring documents and other elements necessary for the correct and safe performance of very low-level flights. He was also responsible for the accurate dissemination of information connected with the flight, and was supposed to enforce compliance with regulations. At the very least, Lt. Colonel Muegge does not seem to have paid sufficient heed to the state of affairs in the squadron that he commanded, since at no point did he intervene to prevent the continuation of conduct that was in breach of the rules of flight discipline. It may be reasonably assumed that Lt. Colonel Muegge was, in fact, perfectly aware of the misconduct of his pilots during their flights in Italy but, out of a misguided sense of group spirit, allowed them to continue, thereby failing in his duties as a commander. This assessment of Lt. Colonel Muegge is further justified by the results of the administrative inquiry into the conduct of Prowler

squadrons based in Aviano that the Marine Command instituted in the days following the tragedy. The inquiry concentrated on ascertaining whether VMAQ-2 supervisors had been negligent, and whether there was a connection between their negligence and the mishap. The result of this inquiry was a disciplinary reprimand for four squadron officers: the Commander, the Executive Officer, the Operations Duty Officer and the Flight Safety Officer. The inquiry concluded that the Flight Safety Officer, Major Max Caramanian, and the Squadron Commander Lt. Colonel Muegge were guilty of dereliction of duty for their failure to inform VMAQ-2 pilots of flight restrictions. As a consequence of this, Muegge was relieved of his command.

To conclude: the dereliction of duty and the negligence that Lt. Colonel Muegge demonstrated by failing to gather flight information and impart it to his squadron, coupled with his complicity in the undisciplined conduct of his pilots, may be considered as one of the causes that led to the tragedy of 3 February 1998.

While the USAF 31st FW in Aviano does not appear to have been responsible for the contravention of flight regulations, we regret to observe that the unit was negligent in disseminating local flight regulations to deployed units. The 31st FW was responsible for providing assistance to units on temporary posting to Italy, including the VMAQ of the Marines. Its tasks included imparting instructions and updates on local flight regulations. This duty entailed posting information updates in the mailboxes of each unit in the air base, and holding weekly meetings to announce new operational conditions and highlight the most important ones. The commanders of every NATO unit stationed at the airbase were invited to these weekly meetings. The officers in charge of the 31st FW, General Peppe, the Commander, and Colonel Rogers, head of operations, had no powers of command over deployed units, and did not even have the authority to make certain that the information supplied at the weekly meetings was effectively being distributed. In other words, they were not in a position to regulate the conduct of aircrews nor the internal organization of other units. Moreover, the methods used for distributing information were also highly defective. For instance, the VMAQ mailbox was constantly full of uncollected documents, further proof of the prevailing negligence. Regrettably, the commanders of the 31st FW acted with excessive regard for bureaucratic niceties when they would have done better to insist upon fuller participation at the meetings and should, at the very least, have seen to it that the notices they posted were collected. This was certainly within their capacity, and had they exercised their powers as they should, the aircrew would not have been unaware, or been able to claim ignorance, of FCIF 97-16, the notification which included the instruction that flights over Trentino were not be conducted at an altitude below 2,000 feet. According to the testimony of VMAQ-2 pilots, most of them were unaware of this information.

Finally, a certain responsibility for the tragedy must be ascribed to the lack of clarity in the NATO and national chains of command and control over VMAQ-2.

As we have seen in more detail in chapter 5 of Part III, and chapter 2 of Part IV of the present report, the structure of command and control before the accident was complicated and in many respects unclear. In particular, in the NATO (not US) chain of command the VMAQ squadrons based in Aviano were answerable to COMSTRIKEFORSOUTH (CSFS). Whereas CSFS supervised NATO tasks, the US commander-in-chief in Europe (CINCEUR) « apparently » had responsibility for non-NATO national activities, including training flights. In fact, the relationship between the command of VMAQ-2 and CSFS with respect to national operations still remains obscure. In any case, the relationship between them does not seem to have been sufficient to guarantee proper oversight, as the Command Investigation Board and the Tricarico-Prueher Commission both point out.

In short, the several delegations of authority and the distinction between the US and NATO lines of command may well have had the effect of giving the Marines based in Aviano an unusually broad degree of autonomy. In the absence of effective controls over the activities they carried out, the squadrons appear, unfortunately, to have taken considerable advantage of the situation.

1.4 Responsibility of Italian political, institutional and military authorities

It should also be observed that in the 20 years preceding the accident, the political, institutional and military authorities of Italy failed to give due attention to the repeated reports from local civilians and their representatives regarding flights in breach of safety regulations. No follow-up was made to the reports, possibly also as a result of their unspecific nature. There was also a certain degree of passive acceptance of the actions carried out by the US armed forces based in Italy.

With respect to the Italian chain of command, the Committee concurs with the conclusions reached by the military courts, which found no grounds for imputing criminal responsibility to the Italian officers in charge, namely the base commander in Aviano, Colonel Orfeo Durigon, and the commander of the COA/COM of Martina Franca, Lt. Colonel Celestino Carratù. The former was investigated by the Military Court of Padua, and the latter by the Military Court of Bari. The Committee nonetheless feels that Colonel Durigon regarded his role with respect to the American personnel at the base as merely bureaucratic and formal. While it is true that by the terms of international agreements he did not enjoy extensive powers of control or have the authority to prevent flights, he was nonetheless obliged, by the terms of the very same agreements, to alert his US counterparts to the need to comply with the regulations governing low-level flight in the zone in which the accident occurred and to raise the issue with his superiors in the event that his warnings were going unheeded.

We must also consider the message from the Air Staff of 21 April 1997, which barred units deployed to Italy for Operation Deliberate

Guard from carrying out low-level training flights. This message was a central issue in the hearings conducted in Italy, and gave rise to considerable disagreements about its purpose, especially whether it was intended to be prescriptive or not. We refer the reader to the sections of the present report which examine this matter at length. Nevertheless, the issue suggests that military authorities should be particularly careful when drafting written communications pertaining to sensitive or delicate topics and avoid equivocal phrasing that is open to misinterpretation, especially as this could result in the failure to apply whatever directives the message contained. The Committee also recommends that due attention be given to the task of controlling and verifying the manner in which these communications are received and implemented.

1.5 Flight regulations

The Committee devoted considerable attention to the rules governing military flights in Italy, the procedures for authorizing flights and the controls exercised over them. Our analysis, which is given in chapter 4 of Part V, has revealed that the rules are precise, detailed and substantially valid. While the rules satisfy the requirements for public safety, and did so even before the tragedy, the system of control is defective. The action taken immediately after the disaster, however, further strengthened the safety guarantees.

The regulations in force in Italy are fully suited to the planning, programming, execution and control of flight operations, with special regard for low-level training flights. Italian regulations also meet fundamental and indispensable safety requirements in every respect. Moreover, the various restrictions set by the relevant authorities regarding the categories of aircraft, the zones in which the flights take place and other factors are also adequate. In particular, altitude restrictions are adequate for ensuring the safety and protection of all parties, including aircrews and aircraft, and minimizing the risk to people and property.

The established procedures for authorizing missions and drawing up daily flight schedules, in short the entire process for the approval and authorization of training or operational flights whether under national or NATO command, appear to be straightforward and clear. Similarly, the responsibilities of the various structures and bodies that issue mission requests, forward them, verify their feasibility and ultimately assign and confirm single missions appear to be clear-cut. The procedures for flight control during missions also appeared to be straightforward and extremely simple.

In other words, flight regulations, especially with respect to very low-level flight, are adequate and did not contribute to the catastrophe, which was the result of crew indiscipline.

Although the procedures themselves are certainly valid, the technical capacity to monitor flights continuously and check whether they are complying with regulations is lacking. Either instruments are not up to the task or, in some cases, do not exist.

The limitations of the air defense radar detection system are rendered apparent by very low-flying aircraft. As the system is unable to cover mountainous zones, even aircraft flying at higher altitudes can escape detection. The radar instrumentation on board AWACS aircraft does not easily lend itself to carrying out this type of control unless the aircraft have been specifically deployed to cover an area of particular interest. This type of deployment is not possible, however, because the AWACS aircraft currently in use are part of the NATO fleet and therefore are not available to satisfy the requirements of national air forces whose priorities are completely different from those of a typical NATO mission. Even though the acquisition of a national AWACS capacity is one of the priorities of the Italian Air Force, this is unlikely to come about in the near future owing to a lack of funds, as the Chief of the Defence Staff observed in his testimony before the Committee.

Given that the current situation seems likely to continue, the Committee has developed a possible low-cost solution and submitted it to the Government for consideration. The installation of onboard equipment based on technology similar to that used for the global positioning system (GPS) that provides anti-theft protection for motor vehicles could provide an effective means of monitoring aircraft. Clearly, this is a matter that the relative authorities must examine and review in detail, bearing in mind the need for secrecy in military operations.

1.6 Measures adopted after the accident and the Tricarico-Prueher report

Even though flight regulations appear to be adequate, they are not enough on their own to prevent the occurrence of tragedies along the lines of the Cermis disaster. Flight regulations must be backed up by intense and effective command leadership to instruct and keep flight crews continuously informed, and encourage an environment of professionalism, responsibility and ethics. Command activities must continuously check that information is being distributed effectively and that flights are being correctly planned and executed.

In this regard, our inquiries found that at the time of the accident, the US chain of command suffered from defects, a lack of clarity and a failure of supervision. As noted earlier, the US chain of command failed to disseminate Italian flight regulations among its staff, and links between Italian and American military commanders at Italian bases were neither clear nor straightforward.

This situation appears to have encouraged the practice of carrying out low-level flights in defiance of regulations. This is the conclusion reached by the Committee after analyzing the documentation submitted to it (which included transcripts of complaints from citizens about very low-level flights), and after conducting hearings, especially those held in Trento. Local authorities voiced the strong unease of local resident sin the face of increasingly invasive and aggressive flight

activities. We looked in detail at this phenomenon in chapter 5 of Part V. While quite aware that it is extremely difficult to determine whether a flight is following altitude regulations, especially (as the military authorities pointed out) when the judgment is made by someone who is not an expert in the field, we nonetheless strongly urge vigilance and demand that action be taken to repress irregular and irresponsible conduct.

The measures put into effect after the accident and, especially, the measures proposed by the Tricarico-Prueher Commission sought to remedy the state of affairs described above.

More precisely, the Italian and US governments introduced a series of measures with immediate effect directly after the Cermis accident. Some of these measures referred to operational considerations and others to flight safety. The measures of particular relevance include the imposition of new minimum altitude limits for flights, the requirement that aircraft remain in constant radio contact with Italian air traffic control, the obligation to use Italian maps when planning flights and the institution of information briefings by Italian air traffic control. A more detailed list of these measures is contained in chapter 6 of part V.

In order to ensure that aircrews are fully aware of the altitude restrictions in force, the United States also introduced a number of procedural modifications: the formalization of control procedures to guarantee the full distribution of flight information; compulsory and standardized instructions on low-level flight regulation by means of briefings to all aircrews prior to deployment; the formalization of SOPs for deployment, with the inclusion of more detailed information regarding local rules and procedures so that commanders and aircrews are better informed and aware of any updates. Further, in order to familiarize aircrews with the routes and alert them to potential risks and dangers, it was decided that only units of the 31st FW permanently stationed in Aviano would be authorized to carry out low-level training flights. New criteria for the planning and execution of these flights were also established. The 31st FW was also accorded a broader and more visible role, confirmed the Memorandum of Agreement (MOA) between USAREUR and USAFE signed on 2 December 1998. Specifically, the Memorandum states that the 31st FW shall have the function of liaising between the commander of the Italian base and USAREUR, and that all flight activities must be overseen by the deputy commander of operations of the 31st FW, who will be the only point of contact with the Italian Air Force for operational issues in the Aviano base.

The measures amount to more than mere adjustments to existing rules. Rather, they are completely innovative and effectively serve the purpose for which they were intended, largely making up for the various oversights and defects in the USMC chain of command, especially as regards VMAQ-2.

The recommendations of the Tricarico-Prueher report embraced and integrated the new measures. In particular, new procedures were put in place for low-level training by US aircraft, and an important decision was taken not to allow low-level flights over Italian national

territory by foreign air force units unless they are permanently based in Italy. Exceptions to this rule are possible, but they must be approved by the Italian authorities a case-by-case basis. Meanwhile, even units that are permanently stationed in Italy are now subject to severe restrictions for low-level flights. In addition, units temporarily stationed in Italy that have been authorized to carry out low-level flights may not in any case do so over the Alps. It was agreed to nominate a US commander at each Italian installation as a Designated US Authority responsible for overseeing and monitoring compliance with American and Italian flight safety regulations. US units may conduct flight operations only after receiving certification from this authority. It was agreed to post Italian and US liaison and/or exchange officers with selected US and Italian units to enhance the flow of information and facilitate communications. It was further agreed to appoint US flight safety officers, who must attend information briefings by Italian flight safety officers and meet on a regular basis with a designated representative of the Italian flight Safety Board to discuss regulatory matters and issues relating to flight operations in Italy.

These measures seem sufficient to rectify the shortcomings evident in the manner in which information regarding flight regulations is disseminated, and should improve supervision and control by the American chain of command and enhance communications between Italian and American commands.

The hearings conducted by this Committee and the mission to the United States revealed that the recommendations contained in the Tricarico-Prueher Report have for the most part been implemented by the military authorities. These recommendations are also informing the on-going renegotiation of the agreements and technical arrangements that govern the presence and activities of US military forces in Italy. The Committee very strongly urges their continued implementation.

1.7 American initiatives: the Command Investigation Board and the court martials

The Committee wishes to express its appreciation for the efforts of the American government to shed light on events and for the collaboration in helping the Committee accomplish its task. The Committee particularly thanks the US Ambassador in Rome, Thomas Foglietta, and Embassy staff for their helpfulness at various points of the investigation. The Committee is also grateful to the US Department of Defiance for the warm welcome it received during the mission to Washington, and for the valuable and frank exchange of information and views.

Nevertheless, the Committee must draw attention to certain important points.

First, the Committee has misgivings about the choice made immediately after the accident to establish a Command Investigation Board rather than an Aircraft/Missile Safety Accident Investigation Committee or, alternatively, an Aircraft Mishap Board, as provided for

under the terms of STANAG 3531, the NATO convention that regulates the manner in which inquiries into air mishaps involving more than one state in the Alliance are investigated. Indeed, a « privileged » flight safety inquiry would in all likelihood have drawn out fuller and more truthful testimony from at least some of the persons involved. The consequence of the decision to proceed with a Command Investigation Board, which was set the task of determining responsibility, was that the people involved risked self-incrimination by testifying and therefore opted to exercise their right to remain silent or make statements that were incomplete and limited only to areas that defense attorneys considered beneficial. It is a matter of some regret that our proposal to set up an Aircraft/Missile Safety Accident Investigation Committee, in accordance with STANAG 3531, which we made on 20 November 2000 during a meeting at the Pentagon with American political and military authorities, was not accepted. The rejection of our proposal was communicated by Ambassador Foglietta to the chairman of this Committee in a letter dated 14 December 2000.

Our examination of the report of the Command Investigation Board revealed the considerable amount of work and major investigative effort that this body had carried out. The arguments, opinions and outcomes are set forth in a clear and generally exhaustive manner. The inquiry as a whole touched on all matters pertaining to the flight in question, as well as other fundamental and significant factors and their various implications. Certain parts of the report are highly detailed and thorough, partly as a result of the choice of the hearing officers to examine the question from several different angles, and partly as a result of the decision to carry out further verifications. Other parts of the report, however, are superficial and far less thorough and do not offer sufficient or convincing explanations. One example of this superficiality is the CIB's decision to rule out the possibility that there were errors of supervision by the US commands above the squadron in the chain of command, particularly as regards CSFS, or that the US chain of command may have failed in its control of low-level training activities by VMAQ squadrons based in Aviano. Similarly, the report fails to make any analysis of the series of earlier low-level flights carried out by aircrews from the same unit. Although the report states that the crew piloted the aircraft in an aggressive and irresponsible manner that breached restrictions and concludes that the collision was not simply the result of a single error of calculation, it does not clearly state that the type of misconduct, its repetitive nature and gravity can only be ascribed to the undisciplined and utterly reckless behavior of a crew that was fully aware of the correct flight rules (both Italian and Marine Corps regulations) yet acted in premeditated and deliberate contravention of them.

The general impression is that the work of the CIB was intended to focus inquiries on the squadron, making no effort to go beyond this level to discover any further elements of interest, including evidence of responsibility.

For the reasons above, the report issued by the CIB, while deserving of commendation for the effort that went into it, cannot be considered satisfactory.

Likewise, this Committee regrets the refusal of the American authorities to grant the request, presented during the mission to Washington, for copies of the administrative investigation carried out by the Marines in the immediate aftermath of the accident. The American authorities thereby prevented the Committee from acquiring valuable information to help build up a general picture of responsibility for the tragedy.

As regards the legal action taken against the crew, the Committee duly noted that captains Ashby and Schweitzer were dismissed from the Marines after their trial on charges of conspiracy to obstruct justice, and recognizes that the punishment meted out was criminal and not merely administrative. Furthermore, Captain Ashby also suffered a suspension of pay and a prison sentence of six months, of which he served five. The impression of this Committee is that in the face of strong international reaction and condemnation of the acquittal of the accused on charges of negligent homicide and involuntary manslaughter, the American courts penalized the far less serious offences by way of expressing their condemnation of the conduct of pilots who brought so much discredit to the Marines and the United States.

1.8 The inquiry by the Italian Air Force

The Committee is forced to conclude that the inquiry carried out by the Italian Air Force was unsatisfactory. The investigation produced an excessively brief report owing to the narrow scope of inquiry it was forced to examine. It was not able to look into aspects of fundamental importance for the reconstruction of the accident and the EASY 01 mission. Indeed, the investigating board itself admitted that it was not able to gather evidence regarding the conduct of the crew (either on the ground or during flight) nor obtain information on the exact sequence of events because the members of the crew, advised by defense lawyers, exercised their right to silence and refused to respond to the board's requests for clarification.

1.9 Changes to international regulations

In light of the Committee's analysis and the questions that emerged in the aftermath of the Cermis accident, the current process for the revision and updating of international regulations has acquired special importance. This is particularly true of the bilateral negotiations begun in the mid-1990s concerning NATO's use of Italian installations and infrastructures, and the regulation of the operative and training activities of NATO forces. The ongoing review of the technical arrangements relating to the use of individual airbases by Allied forces

in Europe must be carried out with pre-eminent regard to the need to safeguard Italian sovereignty and uphold the rules that every military unit operating in Europe must follow. The renegotiation of the strategic accords with our NATO allies must be carried out from a European perspective. Without calling into question the principles that underpin the agreements, Europe should affirm its growing security and defense identity. To do otherwise would be to risk compromising Europe's capacity to build a system of defense that can simultaneously be distinct from, but also institutionally connected to, the US military apparatus with which it will continue to co-operate.

A number of issues are still open to discussion during the international negotiations. The Committee would like to draw attention to a number of points, which are summarized below.

First, as regards the SOFA, it is necessary to make a fuller and clearer definition of situations in which the sending State is permitted to claim primary jurisdiction for actions that were carried out as part of « official duties ». It is an important distinction for the exercise of both criminal and civil jurisdiction. A clearer definition of which actions fall under the category of « official duty » could have important consequences both as regards the liability of the sending State for any damages awarded and the priority of jurisdiction.

It is also necessary to consider the need to clarify the issue of concurrent jurisdiction between sending States and receiving States in cases where such concurrence regards the safeguarding of clearly disproportionate, or even merely apparent, interests. We refer to cases in which the sending State claims priority in order to prevent the receiving State from applying its jurisdiction, rather than trying and, where necessary, punishing the guilty parties. For example, the sending State may assert that an action that contravenes the laws of the receiving State should fall under the sending State's jurisdiction because it belongs to the category of « all disorders and neglects to the prejudice of good order and discipline in the armed forces », an offence which, pursuant to Article 134 of the Uniform Code of Military Justice, is punishable under US military law. In such cases, where the gravity of the offence in the receiving State outweighs the interest of the sending State, the receiving State should have jurisdiction, even if the offence was committed within the context of an « official duty. » The sending State should nonetheless remain liable for civil damages, according to the terms of the SOFA, if the offence was committed during the performance of « official duty ».

Another necessary step is to ensure that compensation to victims is generous, that the procedures for its payment are straightforward and that the burden of compensation falls entirely on the sending State if the damage was caused by a grave breach of the laws of the receiving State and/or a violation of procedures or rules of conduct to which the two states have agreed. In simple terms, this refers to all agreements of a technical nature, including understandings reached between the respective military commanders of the states. If such agreements are to be respected and if civil society is to monitor their application, they

must be publicized as much as possible. under such a system, Italian base commanders should be given the power to prohibit any activities that violate regulations.

Taking their cue from the recommendations of the Tricarico-Prueher Commission, the parties should revise their agreements to bring greater clarity, precision and simplicity to the manner in which the various functions in the military chains of command are assigned to specific persons. It is particularly necessary to provide the Italian command with adequate and substantive powers of control over the activities of foreign military personnel, and accord Italian commanders sufficient operational and executive powers of interdiction and intervention in the manner proposed by the Tricarico-Prueher report.

Current regulations need to be revised and/or completed in the manner suggested above. Such a review necessary requires a negotiated agreement among all EU states in order to ensure a common security policy on the presence of military forces in Europe, and establish common criteria for the exercise of criminal and civil jurisdiction across a single European area, employing the new provisions envisaged in the Treaty of Amsterdam.

The Committee is therefore in favor of the ongoing re-examination of the technical arrangements for the use of individual airbases by Allied forces in Europe, recommending careful attention to safeguarding national sovereignty and to the rules that every military unit operating in Europe should follow. Likewise, the Committee agrees with the simultaneous renegotiation of the strategic accords with Italy's allies from a European perspective, without calling into question the principles that underpin them, in order to affirm the growing European security and defense identity. To do otherwise would be to risk compromising Europe's ability to build a system of defense that is simultaneously distinct from, but institutionally connected to, the US military apparatus.

1.10 Modifications to Italian criminal and civil law

The institutional duties of this Committee included an evaluation of the adequacy of Italian civil and criminal law. In its consideration of the subject, the Committee paid particular attention to substantive criminal offences and the compensation of civil damages. The analysis was conducted with a view to minimizing the use of criminal law, regarding it as a last resort and preferring other forms of regulatory intervention. Although the Committee developed a number proposed amendments to criminal provisions, it preferred to look for solutions in civil law.

One possible action would be to modify Article 589 of the Criminal Code, which punishes negligent homicide *(omicidio colposo)*.

In particular, legal safeguards in cases analogous to the Cermis accident could be enhanced by incorporating a new aggravating circumstance punishing negligent homicide committed in the course of a violation of flight regulations or the operation of an aircraft, similar to provisions already in force for vehicular traffic and workplace safety.

Similarly, Article 590 of the Criminal Code, which covers negligent personal injury *(lesioni personali colpose)*, could be improved by the addition of a new aggravating circumstance punishing such offences committed in the course of a violation of flight regulations.

In respect of the issue of liability for damages, a matter that was much debated after the catastrophe and prompted the Italian Parliament to pass a special law so the victims' families might receive adequate compensation, the Committee carefully considered whether a more general solution to the problem might not be possible, concluding that this would be preferable to changing criminal law in the manner outlined above.

The Committee therefore favors the introduction of new civil-law provisions establishing compensation for damage caused as a result of the operation of an aircraft, considered to be an inherently dangerous activity. Essentially, the proposal would be to establish a form of objective civil liability associated with the operation of an aircraft.

This solution would mean that the owner of the aircraft (in the case of military aircraft this would be the state to which it belongs) would be held liable for any damage caused and therefore liable for compensation even for accidents caused by chance events or *force majeure*, without the need for ad hoc political decisions, thus enhancing the protection of the damaged parties.

The Committee submits its considerations and proposals to Parliament confident that it carried out its task with full dedication and rigor, thanks to the contribution of all its members. Albeit inspired by different critical objectives, they succeeded in working together in harmony because they shared a sense of deep respect and consideration for the victims, and a common desire to ensure that tragedies such as Cermis will not happen again. This Committee hopes that its efforts have served not only to highlight political and institutional responsibilities at every level, but have also contributed towards the accomplishment of that goal.

APPENDIX

1. THE LEGAL CONTEXT

The legal context for the regulation of operations involving foreign, especially US, military personnel in Italy as part of the NATO presence, and the concession of bases and infrastructures to US forces in Italy

North Atlantic Treaty, signed in Washington in 1949 and ratified by the Italian Parliament with Law 465 of 1 August 1949. Provides for the creation of a mutual military defense organization.

Statute of Forces Agreement (SOFA), signed in London in 1951 and ratified by Italy in 1955 (NATO SOFA Treaty). Establishes general rules regarding the presence of personnel from one or more NATO states in the territory of another NATO state.

Italy-US technical arrangement for air forces of 30 June 1954. Sets out the limits for the operational, training, logistical and support activities that American aircraft may carry out in Italian territory.

Basic Infrastructure Agreement (BIA), a bilateral accord between Italy and the United States signed on 20 October 1954. Regulates the use of bases made available to US forces in Italian territory and is generally known as the « umbrella agreement ». Pursuant to the terms of the BIA, a number of technical and local memorandums of agreement were signed over the years to regulate various aspects connected with the use of individual bases. As regards the Aviano base in particular, a memorandum of use was signed in 1956 and again on 30 November 1993, and a associated technical arrangement on 11 April 1994.

With the aim of proceeding with the revision of the technical arrangements, a memorandum of understanding (MOU) known as the « Shell Agreement » was approved on 2 February 1995 to implement the BIA of 1954 governing the installations and infrastructures available to US forces in Italy. The MOU provides for the drafting and revision of each technical arrangement each base used.

Memorandum of understanding dated 15 December 1995. This is an agreement stipulated between the Italian Ministry of Defense and the Supreme Headquarters Allied Powers Europe (SHAPE), regarding the supply of logistical support to foreign forces in transit through or temporarily stationed in Italian territory for the purposes of implementing the SACEUR « Joint Endeavour » operation. This memorandum was extended to cover operations in Bosnia and Kosovo, and formed the basis for three sub-agreements that were to be signed by

all three branches of the Italian armed forces. The Army and Navy signed two of the sub-agreements, but the Italian Air Force has not signed the third, which, because it also involved the air forces of the 15 or so countries involved in the operation, was more complex. The failure to sign this sub-agreement has been ascribed to the reluctance of the foreign partners to accept the Italian proposals, which include demands that the others Allies do not always or entirely share, as the Chief of Defence Staff General Mario Arpino stated.

The regulation of flight activities with special regard to low-level and very low-level training flights and aspects relating to flight safety and the social-environmental impact of flights; the principal directives, procedures and manuals

SMA-7, directive from Chief of the Italian Air Staff entitled « *Procedure per la programmazione ed esecuzione delle missioni del traffico aereo operativo* » (« Procedures for the planning and execution of operational air traffic missions »), published in 1982.

SMA-73, directive from Chief of Air Staff « *Addestramento e navigazione a bassa quota* », (« Training and low-level flight »), published by Italian Air Force in 1992. « BOAT » Manual on « *Traffico operativo a bassissima quota* » (« Low-level operational flight »), published in 1992 by Chief of Air Staff and updated in 1997.

BOAT manual Part 2, « *Raccolta informazioni per il volo* » (« Compendium of Flight Information »), updated every six months.

SOP ADD-1. « *Procedura Operativa Standard* » (« Standard Operating Procedure »), published January 1998. Regulations for the planning, programming and execution of flights by units of the Italian Air Force and Allied aircraft stationed in Italy.

SOP ADD-8 « *Procedura Operativa Standard* » (« Standard Operating Procedure »), directive on flights including the AV047 BD route.

SMA/322/00175/G39/ SFOR of 21 April 1997, directive stating that units stationed temporarily in Italy for the purposes of Operation Deliberate Guard « are not authorized to engaged in low-level training activities over Italian territory and territorial waters unless otherwise approved for ad-hoc exercises » (such as the *Cat Flags,* exercises organized by the 5th ATAF over Italian territory which involved the coordinated use of many aircraft).

TR1-151/4464771-4 of 12 December 1990, directive in which the Command of the 1st Air Region (Milan) issued a ban on all flights below 1,000 feet AGL by any aircraft overflying snow-covered mountainous zones.

Message issued by 1st ROC Monte Venda, on 16 August 1997, regarding the mission assignment (ASMIX) that included remarks (RMKS) drawing attention to the interdiction on flights at altitudes of less than 2,000 feet over the Alpine zones of Trentino-Alto Adige.

Document FCIF 97-16 of 31st FW of 29 August 1997, which reports the 1st ROC interdiction.

Pilot Aid Handbook, the manual of the 31st FW.

Marine Corps Order 3500, which sets 1,000 feet AGL as the minimum altitude for navigational training flights in aircraft such as the EA-6B that are not equipped with HUD (Head Up Display).

OPNAVINST, a US document (followed by a number) containing instructions for naval-air (Navair) operations.

NATOPS, Naval Air Training and Operating Procedures, a US document.

2. CHRONOLOGY OF EVENTS

3 February 1998: Public Prosecutors Francantonio Granero and Bruno Giardina open inquiries at the Public Prosecutor's Office of Trento.

4 February 1998: US Command Investigation Board formed in Aviano, chaired by General Major Michael DeLong. The pilot and other three crew members of the aircraft declare themselves willing to face American justice in keeping with the terms of the NATO SOFA (the « London Agreement »). The legal affairs department of VMAQ-3 sends a message to the General Command of the Marines reporting the « misconduct » of the VMAQ-3 commander. Lieutenant Colonel Watters calls a meeting of his officers, informs them of the tragic mishap of the previous day and advises that all the video footage of the flight should be disposed of.

4 February 1998: Institution of the *Commissione tecnica d'indagine dell'Aeronautica Militare* (Italian Air Force Mishap Investigation Board) chaired by Colonel Fermo Missarino.

4 February 1998: First meeting between Prime Minister Romano Prodi and local government representatives.

4 February 1998: Provincial Council of Trento approves motion 139 calling on the Italian government to prohibit all military forces present in Italy from conducting low-level flights over built-up areas.

February 1998, in the days following the accident (no date available): Brig. General Bowdon is appointed by Major General Ryan to carry out an internal investigation into the conduct of VMAQ squadrons.

5 February 1998: first communication from the Minister of Defence Beniamino Andreatta, delivered to a joint session of the Defense Committees of the Italian Chamber of Deputies and the Senate.

5 February 1998: the President of the Province of Trento, Carlo Andreotti, requests the Conference of the Regions in Rome to support his attempt to keep the case under Italian jurisdiction.

5 February 1998: Major General Ryan convenes a meeting of all VMAQ officers at Cherry Point, and accuses the entire Prowler community of flouting regulations.

6 February 1998 Major General Ryan relieves Lieutenant Colonel Watters of his post as commander of VMAQ-3 for having engaged in low-level acrobatic flight contrary to regulations on 3 April 1997 on the same route where the tragedy occurred and of having made a private video recording of his flight.

9 February 1998: the President of the Province of Trento, Carlo Andreotti, calls on Prime Minister Romano Prodi and Defense Minister Beniamino Andreatta to make public all the directives regulating military flights and to detail the initiatives they have taken and intend to take.

11 February 1998: Defense Minister Beniamino Andreatta announces that he has issued instructions to double the minimum legal altitude for low-level flights as a precautionary step.

18 February 1998: Italy asks the United States to waive its priority of jurisdiction.

19 February 1998: the Italian Minister of Justice Giovanni Maria Flick responds to queries regarding jurisdiction rights.

20 February 1998: the Military Court of Padua (Chief Prosecutor Maurizio Block; Deputy Prosecutor Sergio Dini) opens criminal proceedings against unidentified Italian military personnel to ascertain whether any party is guilty of failing to carry out the necessary controls.

February 1998: pursuant to Decree Law 325 of 27 August 1993, the Italian government sets aside a sum of 100 million lire for the families of the Cermis victims The United States underwrites funeral expenses (5 million lire per victim). The victims' families and the only person to survive the accident retain lawyers on an individual and/or national basis. At no point is a single defense team formed. The families of the non-Italian victims will fight their case directly in the United States.

Late February 1998: The Italian Air Force Investigation Board presents its conclusions to the Public Prosecutor in Trento, Francantonio Granero, and the head of the Italian Air Force Flight Safety Board General Vincenzo Camporini.

10 March 1998: the US Command Investigation Board presents its report.

13 March 1998: the Minister of Foreign Affairs, Beniamino Andreatta informs the Province of Trento that he has banned flights over Val di Fiemme.

16 March 1998: turning down the request of the Italian government, the United States announces that it wishes to exercise its primary jurisdiction.

25 March 1998: low-level flights are reported in Margone di Vezzano and Forgaria, but the reports turn out to be unfounded. As the Italian Air Staff confirms, the flights concerned were conducted at the regulation altitude.

27 March 1998: the President of the Province of Bolzano, Luis Durnwalder, enjoins the Minister of Defense Beniamino Andreatta to extend the ban on military flights to include Alto Adige.

27 March 1998: the Province decides to involve also the Minister of Foreign Affairs, Lamberto Dini.

April 1998: an internal inquiry is held by the US military to discover which superior officers were responsible for the Cermis incident. At the conclusion of the inquiry, four officers face disciplinary sanctions.

14 April 1998: the Center of Naval Safety decides not to institute an AMB investigation.

16 April 1998: proceedings are opened against Colonel Durigon by the Public Prosecutor's Office of Trento on two charges of neglect of duty: failure to fulfill the duties set in national and NATO law, and failure to fulfill the duties as defined in the staff organization schedules dated 1 August 1994.

20 April 1998: trial opens in Camp Lejeune (North Carolina) of the four Marine Corps officers The positions of captains Seagraves and Raney are separated.

22 April 1998: the President of the Province of Trento, Carlo Andreotti, and the head of the provincial tourist board, Councilor Francesco Moser, are received by the US Ambassador to Italy, Thomas Foglietta.

5 May 1998: Captains William Raney and Chandler Seagraves give evidence.

26 May 1998: the Public Prosecutor's Office of Trento requests the committal for trial of seven people: the four members of the air crew, the commander of the VMAQ-2 squadron Lieutenant Colonel Richard Muegge, the Operations Duty Officer of the 31st FW, Colonel Mark Rogers and the Commander of the of 31st FW at Aviano General Timothy Peppe.

4 June 1998: Prime Minister Prodi and the Minister of Defense Beniamino Andreatta meet the US Ambassador Thomas Foglietta.

8 June 1998: a press release from the Ministry of Defense in Italy announces that the United States will promptly discharge its responsibility to pay 75% of damage awards.

10 June 1998: meeting held between members of the Provincial Government of Trento, the local council of Cavalese and Funivie Alpe Cermis SpA., the company that owns the cableway involved in the accident.

15 June 1998: the US court martial in Camp Lejeune starts hearing depositions.

June 1998: the President of the Province of Trento, Carlo Andreotti, and the head of the provincial tourist board, Mr Vecli, travel to Washington for three meetings: at the Pentagon, the US Department of State and the Italian Embassy.

July 1998: reports come in of military flights over Torbole and Alto Garda.

3 July 1998: Lieutenant Colonel Rodgers, a US military judge, brings his mandate to a close and recommends that captains Ashby and Schweitzer should face a court martial, and all charges against the other two members of the crew dismissed.

9 July 1998: the US Senate announces its intention to make $20 million available to the families of the Cermis victims.

10 July 1998: at the end of the preliminary hearings, the Commander of Marine Corps Forces, Atlantic, General Peter Pace, confirms Lieutenant Colonel Rodgers' decision to dismiss charges against Captains Seagraves and Raney and sends captains Ashby and Schweitzer for trial by court martial.

13 July 1998: the Province of Trento presents itself as an aggrieved party before the inquiry undertaken by the Trento Public Prosecutor's Office.

13 July 1998: the examining magistrate at the court of Trento, Carlo Ancona, decides not to proceed for lack of jurisdiction.

21 July 1998: Hons. Mantovani, Nardini, Pisapia and Valpiana, members of the Chamber of Deputies, present Bill 5146 demanding the institution of « A Parliamentary Committee of Inquiry into the Cermis Tragedy ».

3 August 1998: in Camp Lejeune, Robert Nunley appears before a military judge and the preliminary hearing into the Cavalese tragedy takes place. Captains Ashby and Schweitzer refuse to file guilty or innocent pleas. The judge strikes out the charge of « negligence in service » and sets 7 – 18 December 1998 as the dates for the trial of Captain Ashby and 4 – 15 January 1999 for Captain Schweitzer.

6/8 August 1998: after a hearing chaired by Lieutenant General Pace, Commander of Marine Corps Forces, Atlantic, the safety officer, Major Max Caramanian, and squadron commander, Lieutenant Colonel Muegge, are found guilty of dereliction of duty for failing to ensure that information on flight restrictions was passed on to VMAQ-2 pilots.

9 August 1998: General Pace relieves Lieutenant Colonel Muegge of his command and sends a letter of reprimand to the chief safety officer of the squadron, Major Max Caramanian, but absolves his « number two » Colonel John Koran III.

30 August 1998: Captains Ashby and Schweitzer are charged with obstruction of justice.

1 September 1998: a press release from the upper echelons of the Marines describes the two pilots as « a disgrace to the Armed Forces » and condemns their conduct as « unbecoming an officer and a gentleman. »

1 October 1998: the president of the Province of Trento and the prefecture of Trento report the sighting of one military jet above Fondo, four above Molina di Ledro and two above Cavalese.

6 October 1998: after a copy of the documentation compiled by the Trento Public Prosecutor's office is sent to the Military Court of Bari, which has jurisdiction over the Air Traffic Control Center of COA/COM, formerly the 3rd ROC of Martina Franca, which at the time of the tragedy was under the command of Lieutenant Colonel Celestino Carratù, the Military Prosecutor in Bari, Giuseppe Iacobellis, opens a criminal investigation against unknown parties on charges of breaching Article 117 of the military criminal code.

7 October 1998: the Trento Public Prosecutor's Office sends the Military Prosecutor of Padua a copy of the request to commit Colonel Orfeo Durigon, Italian commander at the Aviano airbase, for trial on charges of failure to perform an assigned responsibility (Article 117 c.p.m.p.).

October 1998: the latest report to date of a low-level flight over Cavalese, which prompted an inquiry by three deputies from Trentino, Hons. Detomas, Olivieri and Schmidt.

End October 1998: the new US Consul General Ms Ruth Van Heuven, personally informs the President of the Province of Trento, Carlo Andreotti, that President Clinton has authorized the release of the $ 20 million in earmarked special funds for the victims' families.

10 November 1998: a new trial of Captains R. Ashby and J. Schweitzer opens at which they face charges of obstruction of justice for having tampered with the videocassette containing a recording of the flight.

4 February 1999: the court martial of Captain R. Ashby, accused of responsibility for the Cermis disaster, begins.

4 March 1999: Captain R. Ashby is acquitted on all charges of causing the Cermis accident. An request is made to drop all charges against Captain J. Schweitzer.

5 March 1999: Hons. Paissan, Boato, Crema, Leccese, Galletti and Detomas of the Chamber of Deputies present Bill n. 5785, demanding the « Establishment of a Parliamentary Committee of Inquiry into the Cermis Tragedy. »

9 March 1999: in the wake of an agreement between the Italian Prime Minister Massimo D'Alema and US President Bill Clinton, a bilateral body, known as the Tricarico-Prueher Commission, is established and appointed the task of carrying out a critical appraisal of the laws regulating flight operations over Italian territory with the aim of establishing new safety criteria and enforcing greater compliance with the essential principles of flight safety.

10 March 1999: Prime Minister Massimo D'Alema speaks about the incident.

11 March 1999: Hons. Mussi, Ruffino, Spini, Schmid, Olivieri, Basso, Camoirano, Caruano, Chiavacci, Gatto, Migliavacca, Malagnino, Ruzzante, Settimi, Gaetano Veneto, Carboni and Di Bisceglie of the Chamber of Deputies present Bill, n. 5803 calling for the « Institution of a Parliamentary Committee of Inquiry into flight safety during military training and the responsibility for the tragedy that occurred in Cavalese on 3 February 1998 ».

11 March 1999: Bill n. 3882 calling for the institution of a Committee of Inquiry is presented in the Senate on the initiative of Senators Russo, Spena, Cò and Crippa.

15 March 1999: the US court martial recommends the dismissal of charges against Captain Schweitzer.

15 March 1999: the Tricarico-Prueher Commission officially starts work.

22 March 1999: General Leonardo Tricarico, military advisor to the Italian Prime Minister, announces the start of talks for the transfer of some of the low-level flights by the Italian Air Force to Egypt and Canada.

22 March 1999: Hons. Paissan, Boato, Leccese, Galletti, and Crema present Doc. XXII n. 50 calling for a parliamentary inquiry.

23 March 1999: the US Senate votes to appropriate $ 40 million for the families of the Cermis victims The vote will be overturned at the end of the same month by Congress.

23 March 1999: Hons. Romano Carratelli, Molinari and Angelici submit Bill no. 5844 for the « Institution of a Committee of Inquiry into the Cermis catastrophe ».

23 March 1999: Hons. Olivieri, Carboni and Schmid present Doc. XXII no. 51, calling for a parliamentary inquiry into the incident.

29 March 1999: Captain Schweitzer pleads guilty to obstruction of justice and plea-bargains with the court.

2 April 1999: the US court martial rules that Captain Schweitzer should be dismissed from the Marines.

7 April 1999: reported sighting of a fighter jet flying above Mattarello, a built-up area near Trento.

7 April 1999: Hons. Romano Carratelli, Albanese, Molinari and Angelici present Doc. XXII n. 52 calling for a parliamentary inquiry into the incident.

7 April 1999: Hons. Fontan and Gnaga present Doc. XXII n. 53 calling for a parliamentary inquiry into the incident.

13 April 1999: the Tricarico-Prueher Commission publishes its final report.

28 April 1999: Captain Schweitzer obtains immunity from further prosecution to allow him to testify against Captain Ashby.

10 May 1999: Captain Ashby, convicted of obstruction of justice, is dismissed from the Marines and sentenced to six months' imprisonment.

13 July 1999: the Military Prosecutor of Bari recommends the dismissal of charges against Lieutenant Colonel Carratù.

26 July 1999: the Military Prosecutor of Padua recommends the dismissal of charges against Col. Orfeo Durigon.

27 September 1999: reported sightings of two F16s or Tornadoes flying at low-level over Ceole.

13 October 1999: parliamentary bill submitted by Hons. Olivieri and others for the payment of compensation « in favor of the victims' families and the survivors of the Cermis disaster. »

13 October 1999: Captain Ashy is released from prison one month early for good conduct.

18 October 1999: Hons. Valdo Spini and others present a bill recommending the payment of « Compensation for incidents on Italian territory involving armed forces operating as part of NATO. »

19 October 1999: The Chamber of Deputies sets up a Committee of Inquiry to shed light on the causes of the incident and determine responsibility for it, as well as to assess the adequacy of the laws regulating flight training missions by national and Allied forces and to verify the procedures and systems of control. The Deputies present for the vote numbered 331; 226 cast a ballot and 105 abstained. Votes in favor were 215, votes against 11.

21 December 1999: approval of Law 497 containing « Arrangements for the payment of compensation arising from the Cermis cableway accident in Cavalese on 3 February 1998 ».

25 January 2000: the Italian cabinet appoints Councilor of State Domenico Cacopardo to calculate, settle and disburse compensation for damage arising from the Cermis accident.

1 February 2000: charges are dismissed against Colonel Durigon and the documentation is returned to the Trento Public Prosecutor.

8 February 2000: Prime Minister Massimo D'Alema signs a government decree providing 3.8 billion lire to the heirs of the accident victims plus compensation of 1.5 billion to the one survivor, gondola operator Marino Costa. Under the terms of the SOFA, the United States will reimburse Italy 75% of the total.

25 March 2000: the examining magistrate of the Bari Military Court orders the dismissal of charges against Lieutenant Colonel Carratù.

26 April 2000: the decision to drop the case brought before the Court of Appeals of Richmond (Virginia – USA) by attorneys representing some of the families of the non-Italian victims of the accident ends the question of compensation, which has now either been already paid or soon will be.

3. GLOSSARY

2nd MAW	Second Marine Air Wing
5th ATAF	Fifth Allied Tactical Air Force (based in Vicenza)
31st FW	31st Fighter Wing
ACP	Allied Communications Procedures
AEROROC	*Comando Operativo di Regione Aerea* (Air Region Operational Command)
AGL	Above Ground Level
AIRSOUTH	Allied Air Forces – Southern European Command (based in Bagnoli)
AFSOUTH	Allied Forces – Southern European Command (based in Bagnoli)
AM o AMI	*Aeronautica Militare Italiana* (Italian Air Force)
AMB	Aircraft Mishap Board
AMI-CNA	Air navigation chart prepared by the Italian Air Force
ASMIX	Assigned mission
AOM	All Officers Meeting
AOR	Area of Responsibility
ATAF	Allied Tactical Air Force
ATCC	Air Traffic Control Center
ATO	Air Task Order
ATS	Air Traffic Service
ATRIMS	Air Training and Readiness Information Management System
AV047 BD	Aviano Low Level Route Number 047
AWACS	Airborne Early Warning and Control System
BIA	Basic Infrastructure Agreement
BOC	Base Operation Center

BOAT	Low Level Operational Air Traffic
BuNo	Aircraft Buro Number (followed by serial number)
Capt	Captain
CAOC	Combined Air Operation Center
CAT FLAGS	Name of air exercise (in preparation for Balkans operations)
CHUM	Chart Updating Manual
CIB	Command Investigation Board
CIGA	*Centro Informazioni Cartografiche Aeronautiche* (Aeronautical Cartographic Information Center)
CINCEUR	Commander in Chief Europe
CINCSOUTH	Commander in Chief Allied Forces Southern Europe,
CO	Commanding Officer
COFA-CO	*Comando forze aeree- centro operativo* (Air Force Command – Operation Center)
COA/COM	*Centro operativo alternato/mobile* (Alternate/ Mobile Operations Center)
COCOM	Combat Commander
Cockpit G meter	Meter for measuring gravity forces during flight
COMAIRSOUTH	Commander Allied Air Forces Southern Europe
COMMARFORLANT	Commander US Marine Corps Forces Atlantic;
COMSTRIKEFORSOUTH (CSFS)	Commander Striking Forces South
CNA-AM	*Carta di navigazione aerea- Aeronautica militare* (Aeronautical navigation chart – Italian Air Force)
CONUS	Continental United States – indicates line of command for forces based in the United States
CTR	Airspace managed by airport control tower
ATC	Air Traffic Control
DG	Deliberate Guard – NATO military operation
DGOC	Deliberate Guard Operations Center
DL	*Decreto legge* (Decree Law)
DOD	Department of Defense
EA-6B	Type of aircraft involved in the Cermis incident (also called « Prowler »)
E3D	Aircraft equipped with radar systems for long-range identification of other aircraft
EASY 01	Code name of mission
ECMO	Electronic Countermeasures Officer (the EA-6B Prowler has 3 ECMO positions)
ELINT	Electronic Intelligence

ENAV	*Ente Nazionale di Assistenza al Volo* (National Flight Control Agency)
ETD	Estimated Time of Departure
EUCO	Europe Commander in Chief
FCF	Functional Checkflight
FCIF	Flight Crew Information File
FS	Fighter Squadron
FW	Fighter Wing
GAT	General Air Traffic
GIP	*Giudice per le indagini preliminari* (examining magistrate)
HUD	Heads Up Display
IFF	Identification Friend or Foe
IFOR	Implementation Forces (for Dayton agreement)
INFO	Information – indicates address of message sent for informational purposes
INS	Inertial Navigation System
ITAIRSTAFF	Italian Air Staff
KFOR	Kosovo Forces
Kts	Knots (1 knot = 1.852 km/h)
JAG	Judge Advocate General
JAG AN	Judge Advocate General of the Navy
LAT	Low Altitude Tactics
LAO	Local Area Orientation (Flight)
LtCol	Lieutenant Colonel
MAF	Maintenance Action Form
MAG	Marine Air Group
MAGTF	Marine Air-Ground Task Force
Maj	Major
MARFOREUR	Marine Corps Forces- Europe
MARFORLANT	Marine Forces Atlantic (USA)
MSD	Minimum Separation Distance
MSL	Mean Sea Level
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NAEW	NATO Airborne Early Warning (Aircraft)
NATO	North Atlantic Treaty Organization
NATOPS	Naval Air Training and Operating Procedures Standardization
NOTAMs	Notices to Airmen
NIMA	National Imagery and Mapping Agency (US)
ICAO-CAI	International Civil Aviation Organization-Club Alpino Italiano
OAT	Operational Air Traffic
ODO	Operations Duty Officer
OPCON	Operations Control
OPORD	Operations Order

OPNAVINST	Operating Navair Instructions (followed by number, e.g. 3710 7Q)
Ops O	Operations Officer
ORM Form	Operational Risk Management Form
Pod	Container for electronic countermeasures equipment
PT	Point (as in a specific point on a low level)
FP	Flight plan
DFS	Daily flight schedule
RadAlt	Radar Altimeter
RMKS	Remarks
ROE	Rules of Engagement
ROC	Region Operational Command (or Center)
SACEUR	Supreme Allied Forces Commander in Europe
SAR	Search and Rescue
SCC/AM	*Servizio coordinamento e controllo -Aeronautica Militare* (Coordination and Control Service – Italian Air Force)
SFOR	Stabilization Forces
SHAPE	Supreme Headquarters Allied Powers Europe
SMA	*Stato Maggiore dell'Aeronautica* (Italian Air Staff)
SOFA	Status of Forces Agreement
SOP	Standard Operating Procedures
SOR	Squadron Operations Room
SPINS	Special Instructions
STANAG	Standardization Agreement
TA	Technical Agreement, technical arrangement
TACON	Tactical Control
TLC	Telecommunications
TOT	Time on Target
TPC	Tactical Pilotage Chart
T & R	Training and Readiness
UCMJ	Uniform Code of Military Justice
USAF	United States Air Force
USAFE	United States Air Force Europe
USAREUR	United States Army Europe
USMC	United States Marine Corps
VMC	Visual Meteorological Conditions
VMAQ-2	Marine Tactical Electronic Warfare Squadron 2
VNAV	Visual Navigation