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 40-45º 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 environmental 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 investigation 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)

(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 aircrews 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.