PART V

GENERAL ISSUES RAISED BY THE CERMIS MISHAP

1. THE REGULATORY FRAMEWORK – TREATIES AND AGREEMENTS

1.1 Introduction. The Treaty of Washington of 4 April 1949

The North Atlantic Treaty Organization (hereinafter NATO) was established in the period immediately following the Second World War. NATO's principal aim was to create a defensive military alliance between the United States of America, Canada and the Western European countries which had adopted traditional systems of liberal democratic government. In fact, the military side of the Alliance was not unrelated to the objective of reinforcing political and economic ties between the parties to the agreement. NATO was therefore not a military alliance alone but also sought to create a union of states to counter to the collectivist economic system of the Soviet Union and the countries that would later form the Warsaw Pact.

Thus, the concept behind NATO was based on both strategic and economic-political motivations deriving from the so-called Truman doctrine, namely that it was indispensable to use all means to defend European countries from attempts by the Soviet Union to expand beyond the geographical borders drawn at the end of the Second World War.

Such needs were also keenly felt in Europe. On 17 March 1948, the Treaty of Brussels, signed by Belgium, France, the United Kingdom, Luxembourg and the Netherlands constituted the Western European Union (WEU). Founding members of the Treaty of Washington were Canada, Denmark, Ireland, Italy, Norway and Portugal, together with the United States and the signatories of the Treaty of Brussels. The first enlargement of NATO took place in 1951 with the entry of Greece and Turkey. In 1954, the Federal Republic of Germany also joined, and in 1981 it was the turn of Spain. Lastly, in 1999, Poland, the Czech Republic and Hungary, formerly of the Soviet Bloc, were admitted. Beginning in the early 1990s, a series of consultative organizations were created in order to establish permanent relations between NATO, the states of Central and Eastern Europe and the countries that emerged after the collapse of the Soviet Union (North Atlantic Co-operation Council, Euro-Atlantic Partnership Council, Partnership for Peace).

The legal basis for the Treaty of Washington is expressed in Article 5 of the Treaty, which refers to the right to legitimate defense against armed attack.

The purposes laid out in the Treaty are easily understandable in the light of the events of the period in which the Treaty was drawn up. The impossibility of implementing the idea of concentrating the government of the international community in the United Nations and the existence of ideologically opposed blocs of states headed by the United States and the Soviet Union respectively meant that NATO was given very precise aims. The principal aim of the Treaty of Washington was to guarantee the maintenance of peace and security of the signatory countries through the creation of a security system in exercise of the rights recognized by the United Nations (Article 5). While each individual party to the accord subject to armed attack was left free to react independently, the system permitted recourse to legitimate collective defense pending measures taken by the Security Council to put an end to such armed attack. NATO was therefore established primarily in order to constitute a system of collective self-defense, under which armed attack against one of the members is considered an attack against all of them, and consequently each of them shall have the right to take such action as it deems necessary to intervene to stop the attack and restore peace and security, in accordance with the conditions provided for by the Charter of the United Nations (at the request of the party that has been attacked).

Concerning the geographical scope of the mechanisms provided for in the Treaty of Washington, Article 6 limits the application of collective self-defense mechanisms to the territories of the signatory countries, although this area has certainly been enlarged not only in terms of geographical reach but also in terms of the type of intervention used: it now includes the territories of non-NATO members and intervention of an economic, social, and humanitarian nature designed to prevent conflict rather than intervene militarily, all part of a « soft security » approach.

From the very start, NATO had an integrated military structure, topped by the Military Committee composed of the chiefs of staff of the member countries. The Committee has the task of coordinating military activities in peacetime and of drawing up plans for integrated defense to be submitted to the Council or to the Defense Planning Committee. The Council and the Planning Committee decide how the available armed forces are to be used. The possibility of there being emergency situations requiring an immediate military response has led to the drafting of a set procedures for military response to external attacks, as part of the wider « strategic doctrines » adopted by the Alliance.

The drafting of the strategic doctrines, i.e. the set of rules which establish the operating procedures for military intervention of NATO forces against external attacks, is entrusted to the Military Committee. The strategic doctrines express the political and military orientation of the Alliance. An analysis of the strategic doctrines reveals the evolution of NATO. A crucial element in the strategic doctrine of Rome (1991), for example, is the idea of local crisis management, considering that the possibility of a nuclear confrontation with the Soviet Union and the Warsaw Pact countries is no longer a threat, and of the use of NATO forces in UN missions. In 1999, on the occasion of NATO's 50th anniversary, a new strategic doctrine was launched. This envisaged definitive detachment from the United Nations and provided for the possibility of setting up operations managed independently by NATO, without requiring prior authorization from the Security Council.

This new strategic doctrine introduces the possibility of intervention outside the « NATO area », in a particularly broad interpretation of security which goes well beyond the classic notion of armed attack against one of the member nations, as provided for by Article 5 of the Treaty of Washington, and it may well take the form of « soft security » intervention, as mentioned above, designed to prevent conflict or to permit post-conflict reconstruction. The 1999 strategic doctrine reaffirms that a threat for parties to the Alliance that justifies their intervention might well arise from local crises, such as territorial disputes, the breakdown of states, serious violations of human rights or a mass exodus of refugees.

The Treaty of Washington contains only a few clearly established obligations. Most of the obligations deriving from membership of the organization require implementation by the individual signatories. In other words, the Treaty is a sort of framework agreement since it constitutes the legal basis for a range of activities designed to implement the provisions of the Treaty itself. This is very common in treaties, especially in the context of international organizations, where it is thought preferable to reach agreement on the fundamental principles underlying the general areas of the treaty while delegating the implementation of such principles to later agreements. This insures great flexibility in determining the rights and obligations of member countries and in the choice of instruments with which to tackle individual situations as they arise.

1.2 International law

During the course of its activities, the Committee frequently made reference, among other things, to both customary and conventional international law concerning numerous aspects of the cooperation between states within the framework of the North Atlantic Treaty Organization and, more in particular, in bilateral and multilateral relationships between the allied countries.

There are, of course, various types of international treaty: on the one hand, a number of multilateral conventions such as the aforementioned Treaty of Washington dated 4 April 1949, which constituted the Atlantic Alliance, and the Status of Forces Agreement (SOFA – London, 19 June 1951), concerning the status of the armed forces deployed by the Alliance within individual states, lay down the general principles which govern particular cases of fundamental importance in the relationships between Alliance members, and in some cases also refer to the rules of customary international law. On the other hand, a whole range of agreements, conventions and understandings – generally drafted by governments on a bilateral basis – are designed to enable implementation of the conventions of a more general nature or to regulate the technical aspects of such conventions. (12)

Particularly significant for the activities of the Committee were the SOFA, which governs the status of the allied armed forces, and the Protocol of Paris dated 28 August 1952, on the Status of International Military Headquarters set up pursuant to the Treaty of Washington. There are also numerous bilateral agreements: the Basic Infrastructure Agreement (BIA) of 20 October 1954, signed between Italy and the United States, concerning the use of infrastructure located on Italian territory; the Italy-USA Technical Agreement of 30 June 1954; the Memorandum on the infrastructure of the Aviano airbase, dated 14 May 1956; the Memorandum of 30 November 1993 on the use of the Aviano base, with the relative Technical Agreement of 11 April 1994; the Memorandum of Understanding (referred to as the « Shell Agreement ») on the use of installations-infrastructures by US forces in Italy, signed on 2 February 1995 by the Italian Ministry of Defense and the US Department of Defense. The last of these agreements is particularly interesting since it establishes the procedures to be used for drawing up or updating the relative technical arrangements for each installation ceded to US forces under the BIA.

Along with other agreements between Italy and the United States, the Memorandum of Understanding between the Minister of Defense of the Italian Republic and the Supreme Headquarters Allied Powers Europe (SHAPE), concerning the provision of logistical support to external forces in transit or temporarily based on Italian territory in compliance with the 1045 plan, « Joint Endeavour » of SACEUR, is also relevant. It was drawn up on 14 and 15 December 1995. Following this Memorandum, a further three agreements were to have been drawn up for army, naval and air forces (according to statements made during the hearings, only the first two have been signed).

As noted, the SOFA, signed soon after the war, governs the status of the armed forces of the members of the Atlantic Alliance. Among other things, it regulates a number of fundamental aspects of the relationships between Allied countries, such as the apportioning of jurisdiction between the receiving State and sending State over allied personnel who commit offenses. As will be examined in greater depth later, on the basis of customary international law, the SOFA provides for the exemption from jurisdiction of the receiving State for offences committed during the performance of official duties (Article VII, paragraph 3; such offences are also governed by Presidential Decree 1666 of 2 December 1956, which contains the rules pertaining to the application of Article VII of the SOFA). This regulation seeks to guarantee that military personnel who commit offenses while carrying out their duties shall be judged by their country of origin and not by

(12) For the texts of some of the agreements signed within the framework of NATO prior to 1990 and for some interesting essays concerning the regulation of NATO military bases in Italy, see Camera dei Deputati, Servizio informazioni parlamentari e relazioni esterne, Le basi militari della NATO e di Paesi esteri in Italia (with contributions by RONZITTI, MOTZO, MARCHISIO and POLITI), Rome, 1990, p. 147 ff. For a broader analysis of NATO, see also the more recent CANNIZZARO, "N.A.T.O.", Digesto delle discipline pubblicistiche, vol. X, UTET, Turin, 1995, pp. 52-75.

the country in which the offense was committed. However, the same treaty also establishes that the receiving State may ask the sending State of the person who has committed the offense to waive its right to exercise primary jurisdiction (Article VII, paragraph 3(c)). The SOFA also contains an important provision concerning the allocation, between receiving State and sending State, of the cost of satisfying claims for damages caused during the performance of official duties (Article VIII). As will be seen in greater detail further on, all these aspects emerged during the Cermis affair.

It should be borne in mind that at the time of the Cermis tragedy and, especially, after the decision of the court martial in the United States to acquit those responsible for the tragedy, much criticism was leveled both in Italy and in the countries of some of the victims against the terms of the SOFA and in particular against the exemption from jurisdiction. It was argued that in certain cases the principle of immunity from jurisdiction could be unjustly transformed into immunity from responsibility (we return to this subject in section 2.1 of this part).

We have pointed out that there are numerous agreements implementing the general conventions, which for the most part have been signed by the executive branches of government on a bilateral basis. These are agreements of a highly technical nature concerning the use of installations and infrastructures located in allied countries. For the purposes of the activities of this Committee, the agreements signed between Italy and the United States are naturally most relevant.

The Cermis tragedy accelerated the process of negotiating amendments and updating these bilateral agreements with the United States, terminating with the report by the Tricarico-Prueher Commission in 1999 (see section 6.1 of this part below).

The issues addressed by international treaties are thus of various types. Particularly significant for the work of the Committee was the information concerning: the structure, organization and use of military bases of the NATO members (see following section); in matters concerning civil and criminal jurisdiction over members of the armed forces of Allied countries and, generally speaking, the status of the armed forces stationed and operating in foreign countries, as well as the responsibility at the international level for military personnel of the receiving and sending States. The relevant provisions of the SOFA were also examined in order to determine damages, payment procedures and the party responsible for payment (see below, sections 2.1 and 2.2 of this part). Considerable attention was also paid to the amendments and proposed amendments to the agreements in these areas (see chapter 6 of this part and Part VI below).

1.3 The structure, organization and use of military bases of NATO member

The Committee thoroughly investigated the nature and the role of the international agreements concerning the organization and use of military bases and installations of NATO member states, especially as determined by the bilateral agreements between Italy and the United States. The information received both from the Prime Minister's Office (which, as has already been stated, made public some documents that had previously been confidential, such as parts of the 1954 BIA), and the information received from the military authorities consulted proved to be extremely useful.

The information reveals a complex, highly technical legal situation that for the most part is the result of agreements between military authorities that in the past had been implemented even without formal procedures to amend domestic legislation. In relationships between states party to a military alliance, agreements are frequently signed in order to implement other agreements reached previously in which explicit reference was made to further international regulations concerning details or technicalities. Legislation concerning details or technicalities is almost never subject to formal amendment procedures for reasons of the practicalities of international relations. The fact that the parties in a earlier treaty may agree to authorize the competent government authorities to reach further agreements mainly concerning details or technicalities or the implementation of the terms agreed upon in the initial agreement means that the agreements reached at a later date may well be drawn up in a simplified form. As we know, agreements drawn up in simplified form, unlike more formal treaties requiring approval by the head of state or, when necessary, ratification by Parliament (articles 80 and 87 of the Constitution), become effective with the signature of the plenipotentiary alone. Nor can it be maintained that agreements in simplified form do not enjoy the necessary publicity since, from 1984 onwards, all agreements signed by Italy (and therefore also those in simplified form) have had to be published in the *Gazzetta Ufficiale*.

In this context, the Memorandum signed on 2 February 1995 concerning the use of installations and infrastructures by US forces in Italy was particularly important during the hearings. In the Memorandum it is acknowledged that « it is advisable to have a single Technical Arrangement providing implementing procedures for each installation and/ or infrastructure, and that it is necessary to arrive at a procedure defining the proper way to return infrastructure ». To achieve this, the parties agrees to negotiate Technical Arrangements for each installation and/or infrastructure within the framework of the principal agreements signed. A Model Technical Arrangement is attached to the Memorandum, of which it forms an integral particolo

The Model Technical Arrangement confirms that until now the military bases used by the United States in Italy have been subject to a dual form of control by both US and Italian military authorities. The commanders of the bases are Italian military officers, but they do not have effective control over the activities carried out by the United States, since their responsibility is limited to deciding the number of flights and flight schedules and providing air traffic control services. Military control over the personnel, equipment and the type of activities that are carried out by the United States is entrusted to the US commander. As concerns base personnel, the Model Technical Arrangement refers to the regulations contained in the SOFA.

To better understand the allocation of duties between the Italian commander and the US commander of the bases, the provisions of the Memorandum signed between Italy and NATO on 14-15 December 1995 are of particular interest. It establishes that the forces of the Sending Nation (SN) shall abide by the laws of the Host Nation (HN) (Italian law in this case) and that such armed forces shall comply with Italian criminal and civil law and Italian public safety laws. Annex I-D, an integral part of the Memorandum, after defining the Italian commander as the commander of the installation/airbase of the Italian Air Force, who retains his own authority over the entire installation/airbase and represents the Italian Air Force at the local level, specifies among other things that the installation and/or airbase shall be under Italian command, while the commander of the SN unit exercises full command over the personnel, equipment and operations of the SN unit. The SN unit commander shall coordinate all significant activities with the Italian commander. The Italian commander shall inform the SN unit commander of all significant national activities. Should he feel that the activities of the SN unit violate Italian law, the Italian commander shall inform the SN unit commander and shall immediately consult superior Italian authorities for their opinion. In order to perform his duties, the Italian commander shall have free and unrestricted access to all areas of the installation. The Italian commander shall ensure that the SN unit commander immediately halts such activities as may manifestly violate law. The Italian Commander is the official representative of the installation or the airbase and shall perform all liaison activities with the authorities and with local external military and civilian bodies. Article 17 of Annex I-D establishes that the planning and execution of all training/operational activities shall be carried out in accordance with the civilian and military laws of the HN relevant to the specific sector.

Following the Cavalese tragedy, Italian and US authorities adopted and implemented a number of operational flight safety measures, before beginning the negotiations which led to the Tricarico-Prueher Report. These measures consisted of new restrictions on minimum flight altitudes, radio links with air-traffic control in Italian territory, briefing sessions by Italian air traffic control authorities and the use of Italian maps for flight planning. These measures will be examined again below, in section 6.2 of this part.

2. THE PROBLEM OF THE RESERVATION OF JURISDICTION

2.1 The reference regulatory framework

Until the Second World War, there was an important current of thought, supported by part of the relevant case law concerning the legal status of armed forces in the territory of a foreign country, according to which « any public armed force, whether on land or sea, which enters the territory of another nation with the latter's permission enjoys extraterritorial status ». This definition, designed to grant a sort of absolute immunity from the jurisdiction of the receiving State to the armed forces of the sending State and the sending State itself, was superseded in the period following the war. When it was decided to codify a regulatory framework in line with the interests of the various countries involved and with the practice used up to that time, the system contained in the SOFA of 1951 did not hesitate to establish (as can clearly be seen from the preparatory work to the agreement) that:

a) the total immunity of foreign military personnel is not recognized under customary international law;

b) foreign military personnel shall comply with the law of the receiving State and its special regulations governing the performance of their military activities; therefore, they too are « subject to local laws ». In this regard US legislation, and in particular Article 134 of the Uniform Code of Military Justice (UCMJ), has been interpreted to establish that the violation of the laws of the receiving State is also to be considered as a violation of the internal laws of the sending State (13);

c) the receiving State shall exercise jurisdiction over the conduct of the members of a foreign force in its territory should they violate its laws. Such exercise of jurisdiction is generally subject to significant limitations and exclusions where the sending State similarly punishes the same conduct, and the situation is covered by certain circumstances provided for in the SOFA. In some instances, this is further detailed in the bilateral agreements governing the presence of foreign troops on the receiving State's territory;

d) the exercise of exclusive jurisdiction by the sending State for offenses committed by members of its armed forces in the receiving country is in any case legitimate, but only as concerns interests of the sending State which are not directly relevant to the receiving State (treason, sabotage, revelation of state secrets). (14)

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(13) Of considerable interest are the observations recently made concerning the US legal literature on the scope and consequences of application of Article 134 of the UCMJ: "This catch-all provision grants criminal jurisdiction over "all disorders and neglects to the prejudice of good order and discipline in the armed forces" and "all conduct of a nature to bring discredit upon the armed forces" By interpreting Article 134 of the UCMJ broadly, the United States has the ability to deny exclusive jurisdiction to the receiving State for virtually any crime committed by its military. One of the main policies behind the expansion of Article 134 was to reduce the scope of foreign criminal jurisdiction over U.S. forces. By expanding Article 134 to include all, or at least the majority of criminal offences committed by its military force in the receiving state, the United States has been able to retain criminal jurisdiction (albeit concurrent jurisdiction) over its military stationed in foreign countries" (K.C. PRIEST-HAMILTON, Who really should have exercised jurisdiction over the military pilots implicated in the 1998 Italy Gondola Accident?, in 65 Journal of Air Law and Commerce, summer 2000, pp. 619-620).

(14) Concerning the position of certain important members of the Atlantic Alliance on the question of exemption from the jurisdiction of the receiving State of members of the armed forces of allied countries, the conclusions reached in a study of German and British legislation and agreements between Germany and Great Britain are undoubtedly of interest. In particular, the study shows how in certain circumstances the receiving State may further limit its jurisdiction also in cases in which it would have competence under the terms of the SOFA.

These principles and an objective assessment of the interests of the states carried out in accordance with the criterion that recognition of rights in favor of a State's own military personnel should not be requested unless it is prepared to grant the same rights to the military personnel of other States operating on its territory (principle of reciprocity) led to a detailed and complex regulation of the situation described in (c) in order to exclude conflicting and contemporaneous exercise of jurisdiction by the sending State and the receiving State.

This regulation, adopted on the basis of standard criteria, is designed to recognize the priority exercise of jurisdiction by the State of origin of the military personnel or by the receiving State in relation to the interests that are alleged to have been prejudiced in each individual case or to the type of activity (whether or not it involves the performance of official duties) during which the illegal action was carried out. This system introduces criteria to determine the exercise of jurisdiction in order to prevent jurisdictional conflicts and avoid double jeopardy.

This regulatory system derogates from the general principle established in Article 6 of the Italian Criminal Code, according to which anyone who commits an offense in the territory of the Italian State shall be punished in accordance with Italian law. In so far as this inquiry is concerned, it should be pointed out that derogation from the principle of territoriality and the consequent priority of the sending State in the exercise of jurisdiction (except in the case of waiver of such priority by the sending State) is expressly provided for in the reference to unlawful conduct « committed in the performance of an official duty ». Although this only becomes operative after careful examination of the characteristics of each case, this situation appears to be based on criteria which permit a reasonable and balanced reconciliation of the various interests involved in the exercise of jurisdiction of the receiving State in relation to that of the sending State, in accordance with the principles of customary international law regarding the analogous matter of immunity granted to the organs of foreign States present in a host State. This is a long-established criterion in international practice, which rationally uses a reference parameter to evaluate all the various interests of relevance to the exercise of jurisdiction.

This criterion may not be entirely satisfactory, and it may therefore be preferable to adopt a broader, narrower or more precise criterion, as explained below. However, it is not legitimate to argue that the criterion, adopted in the laws relevant to the Cermis incident, is irrational or inconsistent with international practice. This is all the more important in view of the new ways in which State activities are becoming increasingly international, suggesting that an exclusively territorial approach to jurisdiction should be abandoned in favor of more flexible « functional » arrangements, with the attribution of jurisdiction to the State responsible for the function during the performance of which the event occurred. Such a functional approach would be preferable since it means that the sending State is internationally responsible for the actions of its public officials (with obvious implications in terms of the « solvency » of the person who committed the offense and thus of compensation for damages). While a rigidly territorial approach would favor the exercise of jurisdiction of the receiving State, it would limit the responsibility of the sending State, enabling it to elude international responsibility.

We now address the issue of whether or not the activities of the military personnel involved in the Cermis incident should be considered as being performed within the framework of the service for which priority jurisdiction would be exercised by the sending State.

In the case in point, the position adopted by the American government was to include the activities of the Cermis flight of the EA-6B Prowler aircraft (mission EASY 01) of 3 February 1998 within the framework of the duties for which primary jurisdiction would be exercised by the sending State. The United States did so despite the fact that: (a) the flight in question violated the relevant national rules and to those then in force on the basis of the 1993 Memorandum of Understanding and the 1994 Technical Agreement and, (b) the flight was improperly included in a flight schedule for a permanently stationed unit, whose long-term presence in the theater meant that it was fully familiar with the characteristics of the local territory.

Despite being aware of these circumstances, the Italian Government did not hesitate to recognize the « priority » of US jurisdiction, even though it did unsuccessfully ask the United States to waive its primary rights.

The fact that the Italian Government recognized that the offense had been committed during the performance an official duty does not in itself appear to overrule the powers of the Italian judiciary to determine where priority jurisdiction lies. Since the question involved the interpretation of treaties concerning the exercise of jurisdiction, the national courts (not the Government) should have the final say in this instance. Even in the US legal system, where governmental decisions concerning international relationships are binding for judges, it is recognized (section 326.2 of the Restatement of the Law Third on foreign relations) that final interpretive authority lies with domestic judges, even though they are to « give great weight to an interpretation made by the Executive Branch ».

In the Cermis case, however, it was quite clear that the incident had in fact occurred during the performance of « official duty » covered by the priority of jurisdiction in favor of the sending State. In fact, it is significant that the operation had been defined as such by the sending State. This definition and recognition are considered to be significant by most of the national legal systems of the NATO member states: in the United Kingdom, for example, the certificate which specifies that an activity was performed as part of an official duty constitutes sufficient evidence of such status unless the contrary can be proved. Similarly, the courts in Germany are obliged to take cognizance of the content of such a certificate and only in exceptional cases may they override its evidential weight after conducting an analysis of the circumstances leading up to an incident with representatives of the government and the diplomatic representatives of the sending State. In other cases, the certificate (or recognition) issued by the sending State has even stronger value: for example, Turkey considers the certificate issued by the sending State to be decisive, while France (under the provisions of a circular issued by the Ministry of Justice) grants equal weight to such a document used by the sending State if it is rendered and signed (also) by a staff judge advocate or legal officer.

Regardless of the evidential value of the US definition of the operation as a « service rendered in the performance of an official duty », the findings of the inquiry appear to confirm that it was in fact an operation carried out in the performance of an official duty. Despite the uncertainties which emerged from the preparatory work and the position adopted by the Italian delegation (which sought to restrict the scope of the definition of a service rendered in the performance of an official duty), it may reasonably be observed that specific objective circumstances which clearly emerged during the various hearings indicate that flight EASY 01 was carried out in the performance of an official duty. The equipment employed, its characteristics, the authorization required for its use and the specific official identification of the flight indicate quite clearly that it was an official flight despite the fact that it was carried out « outside of the authorized time and space limits » and in violation of the regulations referred to at the beginning of this section. (15)

This assessment is also supported by specific comparative case law involving the NATO Treaty. Further support is provided by court decisions regarding other situations involving identical or similar notions to those used in the NATO Treaty. In the case of an act which can be ascribed to the public function of a state body, the fact that a body has strayed beyond its area of competence or has contravened instructions relative to its activities is irrelevant. In fact, such an act would not be considered to form part of a public function only if the conduct of the foreign body proved, by its very nature, to be completely extraneous to the specific functions of the body or the body is otherwise clearly not competent. This was certainly not the case in the Cermis incident.

Thus, despite some indications to the contrary, the actual circumstances of the Cermis mishap contain objective elements which enable us to consider the actions of the US military personnel as forming part of the performance of an official duty, with all the consequent effects under the provisions of the SOFA.

There is nevertheless still a need – to be satisfied *de jure condendo* - to specify more precisely the circumstances in which an offense can be considered to have been committed in the performance of an official duty. Ideally, such clarification should ideally be undertaken in a unified manner by all the Member States of the EU in joint negotiations with the United States. This even more important in view

(15) See above.

of the extension of EU responsibilities in defense and security matters and the « Communitarization » of the so-called third pillar, at least as concerns the exercise of civil jurisdiction (Article 65 of the EC Treaty), which, as indicated below, strictly depends on the qualification of the activity concerned as an « official duty ». (16)

2.2 Determination of damage, payment procedures and the party responsible for payment

The fact that the operation was performed in the exercise of an official duty, as specified above, is also relevant in determining the damage caused, payment procedures for damages and the party responsible for payment.

The SOFA contains specific provisions regarding the rights of third parties who have suffered damage as a result of operations carried out during the performance of an official duty. It is also known that these regulatory indications are often not expressly followed in favor of other, more simplified means, as proved to be the case in the Cermis mishap.

As specifically regards the exercise of jurisdiction, it is commonly agreed that, in the presence of the circumstances specified above, the sending State, and thus its official body which committed the offense during the exercise of an official duty, may avail itself of immunity from jurisdiction. This position has also been explicitly confirmed by the Court of Cassation concerning the case being examined (Cass., sez. un. civili, 3 August 2000, no. 530, Pres. Vela, Est. Olla, Presidenza del Consiglio dei Ministri c. Federazione Italiana Lavoratori Trasporti – C.G.I.L.). It is precisely on the basis of this supposition that the SOFA establishes special regulations (Article VIII, especially paragraph 5) to specify the means and criteria for immediate payment of damages to any party (of any nationality) on the territory of the receiving State, precisely in order to prevent the aforementioned immunity from impeding full satisfaction of the claim.

The mechanism for payment of damages to third parties is designed to be concluded in the shortest possible time and in such a way as to prevent the dispute from undermining defense cooperation and to minimize consequent effects in order to prevent them from affecting political matters. It is with this in mind that both States first carry out independent investigations into the incident and exchange information. The aim here is to establish (for civil liability purposes as well) whether responsibility for the incident is to be ascribed

(16) According to Article 65 of the EC Treaty, "measures in the field of judicial cooperation in civil matters having cross-border implications, to be taken in accordance with Article 67 and insofar as necessary for the proper functioning of the internal market, shall include: a) improving and simplifying: - the system for cross-border service of judicial and extrajudicial documents; - cooperation in the taking of evidence; - the recognition and enforcement of decisions in civil and commercial cases, including decisions in extrajudicial cases; b) promoting the compatibility of the rules applicable in the Member States concerning the conflict of laws and of jurisdiction; (c) eliminating obstacles to the proper functioning of civil proceedings, if necessary by promoting the compatibility of the rules on civil procedure applicable in the Member State."

exclusively to the sending State of the military personnel. The criteria for dividing the costs of the award are naturally different in the two cases.

In the Cermis case, during and after the cooperation in investigating responsibilities and causes, the United States openly and publicly acknowledged its exclusive responsibility for the accident and for the manifest violation by its own military personnel of the regulations governing low-level flights and the normal rules of prudence that should be adopted in such cases. On the basis of these admissions, the US press and public applied pressure to ensure rapid intervention by the US government to provide adequate compensation to those who had suffered damage. In fact, Senator Robb submitted a special amendment to a Senate bill to anticipate and supplement the damages to be acknowledged as payable by the United States under the terms of the SOFA. This sum should have been paid directly, in full and immediately by the US government to the families of the victims. It is highly significant that authoritative mention has been made of « strategic compensation » in the legal literature. (17)

While it is true that the amendment was later dropped, it is also true that it was favorably received by most of the other members of NATO. And it is equally true that the proposal, together with the consent that it obtained both inside and outside the United States legal system, certainly facilitated a rapid and satisfactory solution to the matter of the compensation to be paid to the families of the victims, in accordance with the terms of the SOFA. The SOFA states that 75% shall be payable by the sending State and 25% by the receiving State (Article VIII, paragraph 5), but with different parameters for compensation for damages, which are considerably higher than those paid for similar cases in Italy (this prompted harsh criticism of the normally meager amounts paid as compensation for accidents similar to that of the Cermis tragedy).

The initiative mentioned above also helps indicate a way to improve the legal framework of the SOFA. In the most serious cases, and especially in cases in which foreign military personnel have violated local laws, agreed procedures or the rules of normal professional conduct during the performance of an official duty, the sending State should be liable for all damages (without the 25% participation of the receiving State). Moreover, in such a case compensation should be paid in accordance with the criteria most favorable to the claimant in the legal systems of both the receiving and sending States. The role of the receiving State in these circumstances must obviously be that of (a) ensuring payment of compensation in any case according to the criteria mentioned; (b) facilitating the settlement of the various lawsuits involving the families of the victims and other claimants and (c) investigating and ascertaining any greater liability of the sending State as mentioned above.

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(17) REISMAN and SLOANE, ”The Incident at Cavalese and Strategic Compensation”, in *American Journal of International Law*, 2000, p. 505 ff.

Concerning the last point, the claimant should be able to turn directly to the military authorities of the sending State through the special ad hoc conciliation bodies (as already provided for in the NATO system), using procedures which could be improved further.

3. AMENDING THE ITALIAN CIVIL AND CRIMINAL CODES

In addition to matters of international law, the Committee also assessed the need to amend Italian civil and criminal law in order to guarantee more adequate safeguards in cases similar to that of the Cermis tragedy.

In the opinion of the Committee, certain legislative changes could be made. These are briefly indicated in the following sections.

3.1 Amendment of Article 589 of the Criminal Code or insertion of an Article 589-bis

The first paragraph of Article 589 of the Criminal Code establishes that negligent homicide *(omicidio colposo)* is a criminal offense. The second paragraph specifies the aggravating circumstance of negligent homicide resulting from a violation of the highway code or the laws covering accident prevention in the workplace. Although in the past the provisions of the second paragraph of Article were considered to delineate a separate offense, for over twenty years now the Court of Cassation has clearly considered the second paragraph of Article 589 to be an aggravating circumstance in cases of negligent homicide. (18) It is therefore clear that in order to consider the aggravating circumstance of a violation of flight regulations resulting in negligent homicide, it would be necessary to make explicit provision in the second paragraph of Article 589 (alongside the provisions concerning the highway code and workplace accident prevention).

Another solution would be to provide for a separate paragraph specifying the aggravating circumstance. This could be inserted between the second and third paragraphs of Article 589, and would explicitly refer to conduct which negligently leads to the death of a person through violation of flight regulations.

It is clear that this aggravating circumstance could technically be introduced as a separate offense in an Article 589-*bis* of the Criminal Code, without modifying the provisions specifying the offense and the aggravating circumstances contained in Article 589.

It might be even more effective, and certainly respond more effectively to social need, to introduce a separate offense (again as an Article 589-*bis*) of negligent homicide that did not cover negligent homicide resulting from violation of flight regulations, but rather negligent homicide resulting from the operation of an aircraft. In this

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(18) Cass. Pen. of 26/6/1975, in Cass. Pen. Mass. Ann., 1976, 704; Cass. Pen., Sez.III of 5/7/1976, in Arch. Giur. Circ. e sinistri, 1977, 292.

case, it would be possible to ascertain exclusively the existence of negligence in terms of conduct (and thus of generic negligence – *colpa generica*) in relation to the fact that the death resulted from sole fact of operating an aircraft, rather than having to ascertain that it resulted from a violation of flight regulations (specific negligence – *colpa specifica*). Drafting an Article 589-*bis* in this way would avoid the problems that also arose in relation to the second paragraph of Article 589, which the judiciary resolved by ascertaining that negligent homicide pursuant to the second paragraph of Article 589 did not require a violation of the highway code or workplace accident prevention legislation in particular, but simply a violation of any measure governing vehicular traffic (19) or the failure to provide adequate protection measures for workers. (20)

*3.2 Amendment of Article 590 of the Criminal Code or insertion of an Article 590-*bis

With the same procedures and possibilities for legislative modification of Article 589 or insertion of an Article 589-*bis*, it would also be possible to amend Article 590 of the Criminal Code.

The first paragraph of Article 590 establishes that negligent personal injury *(lesioni personali colposi*) is a crime, while the third paragraph specifies the aggravating circumstance of negligent personal injury caused as a result of a violation of the highway code or the laws covering accident prevention in the workplace. It is therefore clear that in order to consider the aggravating circumstance of a violation of flight regulations resulting in personal injury, it would be necessary to make explicit provision in the third paragraph of Article 590 (alongside the provisions concerning the highway code and workplace accident prevention).

Another solution would be to provide for a separate paragraph specifying the aggravating circumstance. This could be inserted between the third and fourth paragraphs of Article 590, and would explicitly refer to conduct which negligently causes personal injury through violation of flight regulations.

It is clear that this aggravating circumstance could technically be introduced as a separate offense in an Article 590-*bis* of the Criminal Code, without modifying the provisions specifying the offense and the aggravating circumstances contained in Article 590.

It might be even more effective to introduce a separate offense (again as an Article 589-*bis*) of negligent personal injury resulting from the operation of an aircraft.

(19) Cass. Pen. 17/2/1977, in Giust. Pen., 1977, II, 494.
(20) Cass. Pen. of 18/11/1982, in Cass. Pen. Mass. Ann. 1984, 1429.

3.3 *The hypothesis of civil liability for damage caused by flight activities as an alternative punishment independent of the question of criminal liability*

Without wishing to dwell too long on this issue, it is worth briefly noting that regardless of any changes to criminal legislation, it is clear that damage or injury gives rise to a claim for compensation of such damage or injury. It would be therefore be a simple matter to introduce civil liability legislation that provided for the compensation in the event that a legal interest has been harmed as the result of the operation of an aircraft.

This solution, which we feel could easily be included among those concerning the performance of hazardous activities or the responsibility of employers for damage caused by their employees in the performance of their duties, should be considered as an explicit form of « objective liability »: he who benefits from a situation is also liable for any harm: *ubi commoda, ibi incommoda*. In other words, citing Trabucchi, we would have « liability for occurrence, as opposed to liability for conduct ».

This form of objective liability for the operation of an aircraft, which in civil law would not be affected by the preclusion that such a norm would encounter in the Criminal Code, would enable the direct attribution of liability, and the consequent damages, to the party responsible for the flight which caused the damage. If the harm to the legal interest caused by the operation of an aircraft were attributable to a non-Italian aircraft, it would clearly open the way to a civil action for compensation directly from the aircraft's State of origin, without the need to hope for acts of generosity on the part of that State, which may well be dictated by fickle political considerations .

Moreover, there would be no need to demonstrate liability arising out of the way the aircraft was operated. Rather, liability would be linked to the fact of the hazardous nature of flight operations themselves. It would therefore be possible postulate cause for action to recover damages even in the event of fortuitous circumstances or *force majeure*, should this prove necessary.

In this manner, safeguards would be created to protect against any possible defects of jurisdiction. In addition, it would in any case be possible to impose a sanction on an act committed on Italian territory, even when carried out by citizens of another State, who might claim the priority exercise of jurisdiction by their State of origin.

Indeed, if we were to sanction possible objective civil liability for damage caused by the operation of an aircraft (within the terms referred to above) arising in relation to the mere fact that it is a hazardous activity, we would be faced with two possible cases:

a) the flight operations were conducted as part of an official duty;

b) the flight operations were not conducted as part of an official duty.

In the first case, the state of origin of the person who commits the offense would be directly liable for civil damages, regardless of the personal liability of the citizen of the State of origin. In the second case, Italy would have exclusive criminal jurisdiction to ascertain the responsibilities provided for in the first paragraph of Article 27 of the Constitution, as well as the right to take action against the person who committed the offense to obtain compensation for damage under civil law.

In both cases (determining which applied could at this point be left to a sole declaration by the State of origin of the party who committed the offense) the Italian State would have the direct possibility of applying its own laws.

4. REGULATION OF FLIGHT OPERATIONS

4.1 Overview

This section regards low and very low-level flight operations. As this is a multi-faceted issue, it needs to be looked at from a variety of perspectives. This particular section focuses on the regulatory background and the procedures for planning and controlling flights.

To begin with, a brief overview of some of the basic concepts of air traffic in general and operational air traffic in particular is useful, especially since this latter category is directly pertinent to the flights under examination here. It also has to be remembered that various revisions, changes and organizational restructuring have taken place since the incident. In common with other types of air traffic, military flights must follow very precise disciplinary rules that are enforced by the appropriate organizational and operational structures.

The legislation regulating the use of Italian airspace provides for two types of traffic. The first, known as General Air Traffic (GAT), refers to the flights and activities of all civilian aircraft as well as any military aircraft that choose to follow GAT conventions. The second type is known as Operational Air Traffic (OAT) and refers only to military aircraft, which are required to comply with a well-defined but different set of rules. The scrupulous observance of the rules by all parties makes the coexistence of these two different types of traffic possible. They are both carefully and systematically coordinated so that essential flight safety requirements can be guaranteed for all aircraft, regardless of class. Thanks to this careful coordination, the disparate objectives and requirements of civilian and military air traffic can both be fulfilled. Regionally-based civilian bodies attached to the Air Traffic Control Service (ATS) provide an uninterrupted service of traffic coordination 24 hours a day, and personnel from the Italian Air Force Control and Coordination Service (SCC/AM)) work in side by side with their civilian colleagues. Even so, the demands of the two types of traffic are not always compatible. The ongoing task of reconciling the conflicts that arise has been further complicated by the expansion of civilian air traffic, especially commercial flights, the rising number of which has gradually but inevitably led to the creation of new air corridors and assisted routes, and led to further regulations and restrictions being imposed on available air space. The result has been a sharp decline in the amount of space available for military air missions

Aircraft following GAT conventions abide by a set of regulations that have the force of the law and are contained in a series of « Annexes » issued by the International Civil Aviation Organization (ICAO). For some time, GAT has relied on its own systems of flight assistance and various levels of related services including control tower guidance, radar and telecommunication network systems etc., all of them administered by the National Flight Assistance Agency (ENAV), which is part of the Ministry of Transport. The bulk of GAT consists of civilian aircraft activity but, as indicated above, it is also encompasses some military traffic, which must of course comply with the relevant regulations. The option to fly under GAT conventions is chosen as necessary where GAT procedures are compatible with the nature of the flight. Accordingly, military craft will comply with GAT conventions when engaged in, for example, transport missions, regular connection flights and general navigation training missions. These flights may be conducted at any one of a broad range of altitudes, though low to medium-level flights predominate.

For military and technical reasons, Operational Air Traffic does not abide by the ICAO regulations and recommendations described in this report. It does, however, follow highly precise regulations and procedures that the appropriate military bodies have set forth in considerable detail. The purpose of these regulations is to facilitate the accomplishment of the mission goals and the operational objectives of Italian Air Force units. The Italian Air Force is responsible for and in charge of all flight control and assistance services for OAT in Italian airspace. It is also in charge of the installations and services used for this purpose, such as various levels of control and coordination systems, control towers, aircraft approach, search and rescue, and weather forecasting, as well as the radar systems and telecommunication links that form the air defense chain. The Regional Commands (ROC) and, specifically: 1st ROC – Monte Venda/Padua and 3rd ROC – Martina Franca/Taranto, both of which existed before the Cermis incident, had the power to order OAT missions in any section of Italian airspace, provided the aircraft or helicopters involved were under the command of the Italian Air Force; and authorize OAT missions by helicopters and aircraft not under the command of the Italian Air Force.

It should be specified that when the ROCs were deactivated, their powers were initially transferred for a limited period of time to the Alternate/Mobile Operations Center (COA-COM) at Martina Franca before being definitively transferred to the Air Force Command-Operations Center (COFA-CO) of Poggio Renatico/Ferrara, where they remain to this day.

4.2 Regulations for military flight operations. Low-level flights. Restrictions

Having looked at the general background, we may now turn our attention to the regulations that expressly govern military flights. A basic reference source of rules and procedures for OAT flights is directive SMA-7, issued by the Italian Air Staff, entitled « Procedures for the planning and execution of operational air traffic missions ». Published in 1982 on the basis of earlier directives, the aspects of SMA-7 that are relevant here were updated on 21 February 1996.

The directive specifies:

the control system agencies (air tactics) of the Italian Air Force responsible for the planning, coordination and control of OAT missions and the relevant means of support;

the tasks and responsibilities of the relevant commands and commanding officers;

the methods for planning, coordinating, controlling and executing OAT flights.

The document also specifies a series of obligations:

all Italian military personnel and allied military aircrews stationed on Italian territory and engaged in OAT missions in Italian airspace must apply and comply with regulations;

all OAT missions that commanders consider feasible and necessary to achieve training and operational goals must be included by each unit in the daily flight schedule (DFS);

unit commanders must judge whether an aircrew is suitable for a mission by considering the nature of the mission itself and the crew's level of qualification and readiness for engagement and combat.

The SMA-7 directive also stipulates which operational levels should be in charge of planning OAT flights and overseeing their implementation, and which should be in charge of coordinating the missions and providing air traffic control services. The directive specifies that unit/wing operation offices, base operation centers (BOC) or, at the squadron level, squadron operations rooms (SORs), all of which are recognized planning departments, may draw up a DFS valid for the following day that they must then submit to the ROC responsible for the area. The Air Traffic Control Center (ATCC) within the ROC is responsible for scrutinizing DFSs submitted by the various units. The ATCC seeks to arrange all the proposed OAT missions in sequence, evaluates the feasibility of each mission in the light of air traffic control and air defense as well as flight safety considerations, and assures that the planned flights are reciprocally compatible. Once it has completed this process of verification, known as « deconflicting », the ROC-ATCC (now the COFA-CO) contacts the original unit and assigns the missions by means of an ASMIX (assigned mission message), which effectively authorizes the requested flights.

The SMA-7 directive also provides detailed instructions regarding the methods to be used for composing message and assigning codes for missions and single flights (for example, « BOAT » is used to signify a very low-level operational (OAT) flight).

Another regulatory and procedural reference source is SMA 73, a directive on very low-level navigation training published in September 1992. The document is of key importance for low-level flight and contains important directives for flight units and aircrews. In setting out the limits of the different operational specialties, the directive defines the command responsibilities of the various units involved in a mission and lays down regulations for the activities of aircrews engaged in operational low-level training. It also describes the purposes of low-level flight and sets out rules of conduct. Making full use of the performance capabilities of the aircraft and exploiting the concealment that the terrain offers, even where the level of electronic and infrared disturbance is high, low-flight aircraft enjoy the advantage of being able to penetrate a target area rapidly. Since flight low reduces the length of time a plane is visible to enemy radar, the tactic reduces the probability of interception, thereby reducing the effectiveness of enemy defenses such as conventional anti-aircraft weapons and ground-to-air missile systems.

SMA 73 lays down specifications and definitions regarding: the « minimum separation distance » (MSD), i.e. the minimum distance that must be maintained between the aircraft and the surface of the ground or water during missions at an altitude below 2,000 feet above ground level (AGL) or average sea level (ASL); very low-level flight, which refers to fixed-wing aircraft with an MSD of less than 2,000 feet; and « very-low operational level » flight, which comprises fixed-wing aircraft at an MSD of less than 500 feet in daylight and 1,000 feet at night. Before the mishap, the minimum MSD was 500 feet AGL.

SMA 73 also contains a number of general regulations, such as meteorological restrictions (the rule being that low-level flights must not be conducted in cloud and the ground must be always directly visible), and regulations of a more specific nature that are intended ensure full compliance with national legislation regarding the training of aircrews. These more specific regulations include instructions on how to conduct pre-operational training flights in selected tactical areas that are dedicated to the purpose and subject to special constraints and limitations. SMA 73 also sets forth the responsibilities and tasks of the various levels of command from the Defense Staff and major units to smaller units and squadrons. In particular, flight commanders are specifically instructed to:

monitor the training of their crews with particular regard to flight safety;

set the MSD for low-level flights on the basis of each crew's experience;

ensure compliance with the specific directives for the various types of aircraft.

Finally, the directive recommends that every effort should be made to avoid causing disturbance to the civilian population unless strictly necessary for the accomplishment of the training objective, and suggests that other routes using an MSD above the minimum should be used wherever appropriate.

The general regulations set forth in SMA 73 are supplemented by the instructions contained in the BOAT manual, published in October 1992 and updated to 31 October 1997. The updated version of the manual was provided to the USAF unit in Aviano. The manual forms part of the regulations issued by the Italian Air Force with the intention of striking a balance between the need to allow aircrews to reach the necessary level of training and the need to ensure flight safety and minimize the disturbance caused to the civilian population. All military and civilian air traffic subject to OAT regulations must strictly comply with the rules in the BOAT manual, which contains information, either directly available to the Italian Air Force or supplied to it, that is deemed absolutely necessary for pilots and crews carrying out or planning very-low-level OAT activities. At the same time, the manual also serves as a quick guide to low-level flight in Italy, and provides a useful and suitable reference source that should ensure that low-level missions are responsibly planned and carried out in conditions of absolute safety.

The manual states that the regulations and directives it contains « shall be applied to all national aircraft and military aircraft belonging to allied air forces that are authorized as Operational Air Traffic to carry out very-low-level flights over Italian territory and territorial waters under visual meteorological conditions (VMC) ». It specifies that allied aircraft may carry out low-level flights in Italian airspace provided the Italian Air Staff has issued prior authorization in the form of an annual concession granting « diplomatic clearances » for overflight and using Italian airport facilities. This requirement does not apply to allied aircraft carrying out low-level missions as part of previously planned exercises, i.e., in the course of joint exercises with Italian Air Force units, nor for allied units stationed in Italy, which must, however, submit their low-level training requirements to the Air Staff each year.

Every low-level mission must be examined and its route approved by the relevant Regional Operations Center (ROC, now the COFA-CO). The manual, however, also specifies that allied aircraft authorized to carry out low-level OAT activities must comply with current national legislation, and that crews from other nations may not fly such missions without first having received a briefing on low-level procedures. The primary task of the body/command that organizes activities (i.e., international exercises) is to make sure that foreign air crews receive a full briefing on all aspects of flight in Italy. The briefing must also lay particular emphasis on the measures adopted to minimize the disturbance caused by noise, the need to avoid prohibited and sensitive areas, and the obligation to abide by the restrictions and directives in the Notices to Airmen (NOTAMs). The organizing body is also under obligation to ensure that foreign crews are supplied with fully updated versions of the national directives for low-level flight. In the particular case of the EASY 01 mission, the briefing duty and the responsibility for providing the necessary updates belonged to the 31st FW, which was the organizing command for the low-level OAT mission in which the VMAQ-2 squadron took particolo

The airspace available for low-level operational air traffic is divided into « BOAT » zones. The zones, which may be located over the land or sea, are areas in which low-level Operational Air Traffic (BOAT) flights are usually authorized and carried out. Each designated zone contains: flow corridors through which aircraft may fly in one of two directions (on even-numbered days the flow of traffic is in one direction, on odd-numbered days it is in the opposite direction); transit corridors through which aircraft can move from one zone to another or enter into controlled air space; zone and corridor entrance and exit points for which ground-board-ground communications are established with the traffic control bodies (SCC/AM) to report on positions.

The minimum flight altitude, minimum meteorological conditions (visibility must be at least 5 kilometers) and maximum speed (up to 450 knots) all vary from zone to zone. The 450-knot limit can be exceeded in some exceptional cases during the execution of authorized missions. For instance, during certain training exercises it is permitted to exceed the limit for a brief period of time over a short section of route to allow the military craft to zero in on a pre-established point on the ground to simulate an attack on a target (the target, too, is simulated). The target-destination that the attack aircraft, flying at a safe altitude, have to reach must be located well away from inhabited areas and, in any case, away from areas not suitable for overflight. It should be noted that it is prohibited to pass over those areas marked on the AMI-CNA map of Italy (scale 1:500,000, published by CIGA) or on the ICAO-CAI map as urban centers. (21)

The directives also recommend that the greatest care be taken when plotting routes to ensure that aircraft do not overfly mountainous zones (duly listed in the BOAT manual) where the danger of avalanches exists. The BOAT manual also contains timetable of weekly activities (Monday to Friday, excluding holidays) as well as a list of areas that are entirely off-limits, or subject to limitations and restrictions as indicated in the NOTAMs. In particular, the manual lists those areas that, being thinly populated, have been designated as « dedicated » or « tactical ». Provided all essential precautions have been taken, these areas may from time to time be used exclusively for exercises and certain forms of advanced training (such as very-low-level operational flights). Before the Mount Cermis incident, the minimum altitude for the execution of these special types of flights ranged from 250 feet (about 80 meters) in « tactical » areas to 500 feet (about 160 meters) for the rest of the Italian national territory, save certain areas where the minimum was 750 feet (about 240 meters). The minimum altitudes for helicopters were lower.

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(21) The minimum flight altitude for population centers remains 1,500 feet when flying within one nautical mile of the center.

The manual also specifies areas that are off-limits or subject to severe restrictions such as the airspace around hospitals, industrial plants, prisons, sectors designated for hang-gliding and ultra-light-weight craft, national parks and nature reserves. The manual also indicates the position of all known vertical and horizontal obstacles, electricity lines, cable car installations and lines. The BOAT is a comprehensive compendium of information and news to be consulted along with other relevant publications. The section containing permanent warnings and procedures to be followed is updated every six months by means of NOTAMs.

Another important document that merits attention is SOP ADD-01 a standard operating procedure dealing with « Regulations for the planning, programming and execution of flight activities by Italian Air Force units and allied aircraft based in Italy » issued by the Martina Franca COA-COM on 1 January 1998 and, with effect from 5 January 1998, substituting and annulling the SOP of 1st ROC ADD25 issued in January 1996. The document is essentially a consolidated text that draws together directives issued at a central level and encompasses the regulations and procedures to be followed for plotting flight paths, publishing them (which is done by the COA/COM), planning flight activities and their execution. SOP ADD-01 clearly state that the use of CNA-AM maps of Italy, scale 1:500,000, published by CIGA, is obligatory when drawing up a flight plan. It also states that the flight paths must be geographically distributed in all directions and that they must be congruent with the flow corridors indicated in the BOAT manual. It should be recalled that all GAT and OAT activities must be included in a DFS containing a primary plan, « Alpha », and an alternative, « Bravo », which must be submitted by a certain hour to the COA-COM one day before the intended flight. All the missions contained in the DFS must be examined by the ATCC-AM, which is responsible for communicating, before 20:00 hours, an assignment/authorization message (ASMIX). The originating body (the squadron operations office or BOC) must contact the ATCC-AM and reconfirm the DFS at least 30 minutes before the estimated time of departure (ETD). At the hearing on 30 March 2000, the Chief of the Italian Air Staff, General Andrea Fornasiero, discussed all the publications mentioned so far in this report. At the hearing, General Fornasiero described very-low-level flight as an essential part of the training and professional skills of aircrews, who must always be combat ready. He said low-level flight was a difficult skill, especially when conducted at the high speeds demanded. All parties, from the aircrews to those in charge of administering and controlling low-level flights, must proceed with the utmost care and fully consider all aspects of safety and the territory below so as to cause as little distress as possible to the civilian population. For this reason, it is necessary for each link in the entire chain of command to have detailed directives dealing with the regulation of low-level flight. As already noted in this report, these directives apply to all military aircrews, whether Italian or foreign, that operate in Italian airspace.

Another relevant publication is SOP ADD-8 in the version updated to 15 July 1991, which contains a compendium of the standard approved air routes, including those for the Aviano base and therefore also the AV047 route followed by the EASY 01 mission.

As General Fornasiero pointed out at the hearing, a whole series of additional temporary restrictions also exist in respect of training by foreign aircraft in Italy as well as transitory restrictive provisions imposed at a local level by the relevant regional commands (such as, for example, a ban on overflight of Alpine areas during the period when the risk of avalanches is greatest). These restrictions include:

message TR1-151/4464771-4 from the Command of Air Region 1, dated 12 December 1990, sets the minimum altitude for all flights in mountainous zones for the period 1 November to 30 April or, in any case, in the presence of snow cover at 1,000 feet AGL. This directive was included in the Pilot Aid Handbook of the 31st FW.

message from 1st ROC-Monte Venda regarding an ASMIX dated 16 December 1997 which includes a note, contained in the remarks (RMKS), reminding aircrews of the ban on flights below 2,000 feet in the Alpine zones of the Trentino-Alto Adige Region. The ban was also included in FCIF 97-16 of the 31st FW dated 29 August 1997.

A brief reference to the training activities of other NATO/WEU air force units stationed in Italy during the Balkans crisis completes this survey of the regulations on low-level flight. As the Chief of the Italian Air Staff pointed out in his hearing, the start of air operations in the former Yugoslavia and, more precisely, the start of Operation Deny Flight in the skies above Bosnia-Herzegovina in the first half of 1993, made it necessary to draw up a specific set of regulations to govern the training activities of allied air force units that were either stationed in Italy or simply operating in Italian airspace, since most had little or no familiarity with the local environment.

As a result of these operations, the volume of training and operational flights began to increase in tandem. The commitment demanded of the allied air forces since 1993 is worth noting (and was mentioned by the Chief of Defense Staff in his testimony): up to 600 aircraft were stationed in Italy and, at the most intense moments of the crisis, 21 Italian airports were used for some 200,000 missions. Whenever new units were deployed to Italy, training activity would increase while live operations continued apace. The natural result was a general increase in flight activity, with an inevitable impact on the environment.

Aware of the environmental repercussions of the increase in activities, the Chief of Air Staff imposed further restrictions on the hours during which activities could be carried out, the number of flights that could be authorized and flight altitudes, which were not to be lower than 500 feet by day and 1,000 feet at night. In the wake of the Cermis incident, even more restrictions were imposed. The legitimacy of these restrictions, which are dealt with in section 6.2 below, was confirmed by the Tricarico-Prueher Commission.

It should also be noted that in the second half of 1999, with the conclusion of the air campaign in Kosovo, the number of allied aircraft stationed in Italy diminished significantly, and the overall volume of activities consequently fell to an insignificant level.

In the meantime, however, mainly as a result of the stricter altitude limits, Italian Air Force units were left with fewer opportunities to carry out all the special activities that low-level training demands. To compensate for the fact that these types of training activities were not allowed in Italy, the Italian Air Force sought agreements with the air forces of other countries (Canada, Egypt) to allow it to use their airports and airspace instead. The cost of this solution is certainly not negligible, nor does it eliminate the need for units to carry out some of their training in Italy, however limited, because the aircrews still have to have a sufficient familiarity and confidence with the mountain areas of the country.

It is also necessary to recall the content of message SMA/322/00175/639/SFOR dated 21 April 1997, which has been examined in the various judicial inquiries into the catastrophe and analyzed in some detail in the present report as well. The question of whether it was appropriate to consider the message an important documentary source has raised some doubts because it does not appear to provide any unequivocal information regarding the applicability of specific restrictions. In the message, the Air Staff reports to the upper echelons of the NATO chain of command on the outcome of a meeting which had examined a variety of issues pertaining to the allied air units stationed in Italian bases as part of Operation Deliberate Guard. A number of options were discussed at the meeting, and an agreement emerged which might apparently, and even plausibly, be interpreted as constituting a proposed directive to lessen the socio-environmental impact of military flights by withholding authorization for low-level training activities over Italian territory and territorial waters by allied units participating in the Operation DG. As we know, divergent opinions and interpretations emerged about whether those measures were supposed to be prescriptive or not. The Chief of Defense Staff and former Chief of Air Staff General Mario Arpino made an authoritative statement on the subject at his hearing on 31 May 2000. Recalling that the issue had arisen owing to concerns not about flight safety but rather noise pollution and the objections of the civilian population, he specified that the message should be considered « not as an order but as a request which, therefore, had no prescriptive significance for the NATO authorities to which it was addressed, and still less to the national bodies to which it was forwarded merely as a matter of information ». General Arpino explained that he knew about the message since it was he who had instructed the Defense Staff to call the meeting that had led to its being issued and added, by way of clarification: « This is the crux of the matter: there was no interdiction, none was ever imposed. We did ask for a prohibition, but this was never expressly done ». At another point in his testimony, he declared: « A request was made not to authorize more missions of that type, but no one said they must not be authorized ».

As far as the United States was concerned, and as noted above, the message does not appear to have been mentioned in the report of the Command Investigation Board (chaired by General DeLong), nor did the Board give any indication of being aware of its existence.

Further, no sign, trace or evidence of the message has hitherto been found to exist in the records of the US Commands in Italy, the 31st FW, or the Marine VMAQ squadrons at the Aviano base. This suggests that the message is unlikely to have been received by these units because it was never transmitted in the first place by their superior commands (if they possessed it themselves), nor does it seem to have been transmitted down the US national or NATO chains of command.

4.3 Planning, executing and controlling flight operations

Taken together, the regulations described in this report constitute the makings of handbook for proper flight planning. As the Chief of the Italian Air Staff, General Fornasiero, pointed out, the flight activities of a unit may be dictated entirely by the training needs of aircrews either to get or keep them in a state of combat readiness, or else dictated by the demands of real operational engagement or preparations for operational engagement. Each unit submits its specific training requirements to the body in charge of coordinating flight activities. Italy's armed forces have been restructuring, and at the time of the Cermis incident the command and control activities as well as the duties which had previously been the responsibility of the ROCs of the 1st and 3rd Air Regions were all temporarily concentrated in the hands of the 3rd ROC of Martina Franca until the COFA-CO of Poggio Renatico assumed complete control of all flight activities. As for the procedural process for authorization, proposed flight activities are entered into the DFS that each Italian and allied unit in Italy prepare if authorized to do so. The 31st FW had always regularly followed procedures for the flights by the squadrons for which it was directly responsible, and was doing so at the time of the incident. The same procedures were adhered to when the 31st FW issued a DFS that included a request for training flights of a national character for the VMAQ squadrons of the Marines, who were temporarily stationed in Aviano for the purposes of Operation DG.

To prevent conflicts in the flight paths planned by the various units, the complete map of air traffic and air defenses was (and still is) verified by a special body At the time of the incident, this was the Martina Franca ROC, whose responsibilities have since been assumed by the COFA-CO of Poggio Renatico. Once it completes its task of verification, the COFA-CO sends an ASMIX to the units from which the flight requests originated. The ASMIX contains salient information on each flight: its name, route, the type of aircraft, and the estimated time of departure and arrival.

With respect to the execution of live operations, a distinction must be made between national and NATO requirements.

In the past, ROCs, acting through ATCC-AM centers, were in charge of national operational missions and national operational-training activities, and the COA/COM was in charge of planning and control. After the organizational overhaul of the armed forces, all these functions were transferred to the COFA-CO of Poggio Renatico, and there they have remained.

NATO activities, on the other hand, are controlled differently. NATO operational training, especially during the Bosnia operation, was, and still is, controlled by the 5th ATAF, which is responsible for carrying out planning and control activities through the Combined Air Operation Center (CAOC). As long as the originator of a flight request is a NATO body, it will be authorized by means of a special Air Task Order, which is a message containing the necessary information for the planning and execution of the mission. All activity originating from or administered by the CAOC is forwarded to the agency in charge of controlling the national chain of command and is therefore interested in being kept informed (in the past the COA/COM; now the COFA-CO of Poggio Renatico)

As regards the execution of the mission, the originating agency will check the Air Task Order, using its NATO or national chain of command and control to do so. In the case of a NATO mission, including but not limited to those relevant to Bosnian operations, the « tactical control » of air forces was managed by the 5th ATAF through the CAOC, with the assistance of all available facilities, including radar systems, visual ground control, AWACS and satellite links. The 5th ATAF's task was to issue flight orders on a daily basis to the relevant units, then oversee and check the implementation of the orders. The orders could refer to actual missions in a theatre of operations or training missions that were specifically preparatory for future operations in Bosnia. What these activities had in common was that they were all NATO-related. It is worth mentioning in this regard that the 5th ATAF was not responsible for running training missions that did not form part of DG. The 5th ATAF was not responsible for receiving or assessing any non-DG mission requests, nor was it entitled to issue any authorization for the same, regardless of the steps it did in fact take to block requests for training flights by disactivating the related function of its information system.

During the phase of execution or, more accurately, during the actual flight, a mission establishes and usually maintains radio contact with the controlling agencies in the relevant areas. Once an initial radar identification has been made and the aircraft trace is matched with that of the mission and marked as « friendly », the aircraft will generally proceed along its route without the radar operator necessarily maintaining positive control. When this happens, the radar continues to record the trace of the aircraft automatically, though not in mountainous zones where the lie of the land is such that it is often impossible to maintain regular and secure radar readings after the initial identification. Mountainous areas generally constitute a very real obstacle and limit the effectiveness of ground-based radar stations. Indeed, they can sometimes cause difficulties even for AWACS. It is not always possible to maintain constant and accurate control over the flight altitude of an aircraft picked up by airport radar unless the radar station is specifically located at a point from which it can scan the area in question.

4.4 Considerations

Overall, the regulations examined appeared to be remarkably accurate, clear and exhaustive. They are very precise and detailed where needed and can be deemed substantially valid, effectively covering the necessary areas relating to flight procedures and rules in general and in their various aspects. Considered as a complete body, the rules constitute a system of measures that are appropriate to the task of planning, plotting, executing and controlling aerial missions, with special regard for low-level training flights, while at the same time fulfilling fundamental and essential safety requirements from every point of view.

The various parameters set by the relevant authorities in respect of the type of aircraft, flyover areas and other factors were also found to be satisfactory. The specific restrictions and parameters regarding altitude limits were adequate from a safety perspective and afforded protection to the air crews and the craft. The safety standards were also sufficient to avert danger and the risk of harm to people and property in the surrounding environment.

The altitude limits imposed before the Cermis incident might have been considered appropriate, in that they were based on a fair and acceptable compromise between aircrews' training requirements on the one hand and the demands of safety and the need to protect the civilian population from the environmental impact of flights on the other. It has been established that the decision to increase the minimum flight altitude in some areas was based not on safety considerations, for these were already full addressed, but rather on reducing excessive noise pollution and the environmental impact in general. The decision to raise the minimum altitude levels in certain areas was essentially made in order to accommodate the demands of the civilian population.

The validity of the current rules was also confirmed by the elements that emerged during the hearings. An examination of the current rules demonstrates that all Italian and allied aircrews had access to all the information they needed for planning and carrying out missions of the type under consideration in conditions of complete safety. The 31st FW was properly supplied with the BOAT manual, SOP ADD-1 and other relevant documentation and was therefore in possession of all the information needed for the essential and preventative instruction of its own squadrons as well as the VMAQ squadrons, although the latter had to document themselves, taking the initiative to request all necessary assistance in a timely manner.

The procedures for requesting missions, drawing up daily flight schedules, the process of approval and authorization for training and operational activities appear to be similarly straightforward and clear, both for the national and NATO chains of command. The duties of the structures and bodies throughout the process of drafting flight requests, forwarding them and subsequently verifying their feasibility and confirming and assigning a mission were equally well-defined. The procedures for controlling flights during the execution of a mission were both straightforward and simple. Naturally, the sufficiency of the procedures for flight control largely depend on the quality and capabilities of the equipment available. We found these to be satisfactory both from a general safety perspective and with respect to « procedural » checks, i.e. checks carried out by means of ground-air-ground communications to report at key points of the mission, to pass on urgent, material or important information and to call for assistance if required.

While there is little doubt that the rules for flight safety themselves are valid, the ability to maintain constant monitoring of compliance is inadequate or lacking owing to the inadequacy or absence of the necessary resources. While in flight, apart from brief radio contact with air traffic control to report on its position and any other relevant eventualities, or else establish communications with agencies in charge of air defense (for the purposes of identification where possible), the position and altitude of aircraft are largely outside the real-time control of ground authorities. Similarly, it is not possible to reconstruct the route and parameters of a completed flight.

As the Chief of Defense Staff observed, only a limited number of Italian Air Force tactical aircraft are able to use instruments that record salient flight data, and the information that is gathered is used exclusively for post-mission analysis and training purposes.

Air defense radar has only a limited ability to detect low-level flights and, as it does not work well in mountainous zones, sometimes even fails to detect aircraft at higher altitudes. The civilian radar network, which is designed for airspace control and other functions, is different but has its own limitations. Even the AWACS-based system does not easily lend itself to the type of control required unless the AWACS aircraft are specifically assigned the task of monitoring a particular sector of special interest. This type of monitoring is not practicable, however, because the AWACS aircraft belong to the NATO fleet and may not be redeployed from their primary function just to satisfy national needs. Although the acquisition of an AWACS capacity is one of the priorities of the Italian Air Force, as the Chief of the Italian Air Staff stated during his hearing, it is unlikely to come about in the near future owing to a lack of funds.

As the current situation is likely to persist, one possible low-cost solution that would provide a monitoring system for the flights in question, might be to install an onboard system based on the global positioning system (GPS) technology similar to the antitheft satellite devices fitted in many automobiles. Obviously, the appropriate authorities and governing bodies would be responsible for developing and evaluating this idea.

With respect to flight regulation, however, it is simply not enough to introduce better devices and improved standard procedures for low-level flights, nor even to make sure that aircrews are fully aware of the regulations and the obligation to comply with them. It is also necessary to pay due attention to the problem of regulating conduct and, consequently, dealing with factors relating to individual behavior. In other words, the necessary task of laying down regulations cannot be deemed complete until the regulations have been so comprehensively assimilated by the relevant parties that they constitute a cultural value that is underpinned by the sense of professionalism of the personnel who deal with the sensitive issue of safety, personnel who generally speaking are highly qualified individuals, whether aircrews or commanders at various levels of the military hierarchy

The Cavalese mishap demonstrated that the rules governing low-level flight in Italy were completely irrelevant to the EASY 01 mission of 3 February 1998 because, as the Chief of the Air Staff pointed out in the course of his hearing before this Committee, that flight along contravened a number of regulations. Indeed it would be extremely difficult, and probably impossible, to devise a system of rules different from those now in force that could prevent such a mishap from occurring given that the conduct of that particular flight was utterly irregular in the most negative and reprehensible sense possible.

When classifying accidents ascribable to human actions, a clear dividing line separates errors of judgment about aircraft performance from states of necessity and acts of indiscipline. High-ranking authorities of the Italian Air Force told the Committee that acts of flight indiscipline that lead to harm or give rise to situations of danger were extremely rare nowadays. They stated there was scarce opportunity for indiscipline thanks to the careful selection procedures, the training that crews receive, the complexity of the aircraft themselves which deliver not just high performance but also greater reliability, and the fact that most operations do not give crews much chance to become distracted or indulge in improvised diversions. For the most part, accidents caused by human error originate from misjudgments made while flying the aircraft caused by the less-than-optimal psychological or physical conditions of the pilot or aircrew and/or special environmental conditions. Rarely has an accident been caused by an display of individual ego for its own sake, in violation of and counter to all forms of training.

The Cermis incident was a clear and, unfortunately, catastrophically extreme instance of flight indiscipline. Not only did the crew involved act in direct conflict with their training background, but they also demonstrated complete disregard for any ethics of flying and clearly lacked the balance, seriousness, rectitude, self-control and self-discipline which, along with proper training, are the defining characteristics of any truly professional pilot whether military or civilian.

Even though the pilot had proper training and instruction, during the EASY 01 mission he and his crew displayed a lack of discipline. In what must surely count as an exceptional and aggravating factor, the pilot was also the acting commander of a team of men who were themselves suitably qualified. Low-level training flights of this kind are conducted by crews and pilots who have undergone diverse and tough selection procedures, have succeeded in passing a sequence of demanding examinations and assessments that measure their progress, gauge their level of instruction, their technical and professional skills and evaluate other important qualities such their psychological and physical strength and behavioral predisposition.

This holds for all pilots and crews of modern air forces, especially those professionals qualified as « combat ready », who have reached such a high level of preparation and maturity that there can be absolutely no doubting their reliability and credibility. No air force can afford to be tolerant of those who stray from the path of professional conduct and indulge in ostentatious and utterly unjustifiable acts of bravado for their own sake.

The US CIB that conducted the inquiry into the mishap found no particular defects or oversights in the Italian organizational structure, nor any failure by the relevant bodies to fulfill their functions of monitoring flight discipline either in general sense or with particular regard to the EASY 01 flight. But, as we have seen, the CIB did uncover supervisory shortcomings by the US authorities during the preparatory phases of the tragic flight.

Indeed, this failure of supervision was judged to be the weak link in the US chain of command. The investigation highlighted the need to arrange supervisory functions more effectively by creating a new high-level authority, a recommendation made by General Tricarico during his hearing. General Tricarico, whose remarks on the subject met with full approval, declared: « While instruction, knowledge of the rules, and the length of the period of service in Italy are all essential factors for the correct planning and execution of a mission, it is also true that individuals and aircrews must be helped to avoid mistakes. To this end, it is essential to ensure ongoing supervision which must be carried out at several levels to guarantee that information is passed to aircrews and those in charge of the various operating sectors and that it is clearly documented. In short, while supervision must focus on the planning and execution of individual activities, it must be based on the knowledge, experience and sense of responsibility of an entire organization.

While it is true that nothing and no one can ever guarantee complete protection from reckless conduct by a single pilot in flight, it is also true that the best prevention is the adequate supply of information and supervision, and that this can be secured only if the commanding officer takes direct responsibility.

It was also noted in the course of the hearings that the Italian Air Force had committed itself on a national scale to improving the organization and increasing the powers of the Flight Safety Board, which is the agency responsible for dealing with all issues regarding flight safety for the armed forces and government-operated aircraft. The Committee also gathered details about the activities conducted as part of the ongoing investigations, about the inquiries into accident reports and accident prevention. The Committee also took stock of the thorough and continuous effort of flight units to refine and monitor preventative measures, an effort that is evident from the number of spot checks and surprise inspections they carried out.

The task of commanding is of fundamental importance and inseparable from flight safety. In view of the vigilance, alertness and rigor that the exercise of authority demands, command action will be all the more beneficial and effective at averting risk if it is performed scrupulously, attentively and incisively during the preparatory phases. This can be accomplished through education, supervision and control, and by the judicious and timely adoption of measures contributing to the achievement of ever higher standards of professionalism. Authentically professional standards will be reflected in the manner in which an organization delivers its services and succeeds in dedicating full attention to the systematic, meticulous and effective observance of the various regulations in force, whether they refer to technical and logistical matters or flight discipline during operations or training.

As far as Italy and the Italian Air Force are concerned, the command structures in charge of the various Air Force units paid particular attention to the problem of enforcing observance of flight regulations and various other questions relating to flight safety, the need for vigilance in command and the supervision and control of the conduct of aircrews. The documentation released by General Fornasiero at his hearing on 30 March 2000 and the evidence given to the Committee by other military authorities were proof of the special commitment of the Italian Air Force to dealing with these issues.

The files include several directives issued by the Chiefs of the Defense Staff on the subject of the « prevention of accidents through the enhancement of the quality of command ». They also include similar recommendations issued by the Air Staff to Air Force units, which are periodically reminded of their duty of scrupulous observance of current regulations on military flight activities and noise pollution. The directives also draw particular attention to the objections and protests of civilians and local authorities.

As regards the United States, the US component of the Tricarico-Prueher Bilateral Commission drew inspiration on how to improve prevention, supervision and command activities from these very directives. The US members of the commission recognized the essential validity of the recommendations, which they therefore adopted as the basis of the measures that the Tricarico-Prueher Report would later submit in the form of a joint proposal for improving flight safety and enforcing proper flight conduct in Italian territory.

5. LOW-LEVEL FLIGHT

5.1 Low-level flights and their impact on the civilian population

Low-level flight operations affect the north-east of the country more than elsewhere, especially Trentino-Alto Adige, where the flight paths pass both over mountain zones and built-up areas in the valleys.

For the purposes of this report, we shall limit ourselves to looking at the phenomenon of low-level military training flights by Italian allies and the Italian Air Force itself, which have long been a source of public concern in the affected areas.

Training activities by military aircraft, unlike acrobatic air displays, are not intended to be spectacular and because of this are treated with greater diffidence. Military flights are a major concern for the civilian population and have elicited protests from local authorities.

As regards accidents and dangerous situations, the statistics indicate that a considerable number of reports have been filed regarding a wide range of different types of military and non-military helicopters and fixed-wing aircraft whose performance levels are generally low.

For the most part, the causes of such incidents have been related to technical, meteorological, environmental and, of course, human factors. Fortunately, the number of incidents ascribable to intentional misconduct, aggressive behavior or recklessness is small.

The question of the impact that low-flying aircraft have on the civilian population is neither new nor exclusively Italian. Between 1987 and 1989, owing to political contingencies, an increase in the number of low-level flights between West and East Germany led to around 100 incidents. In 1990, this prompted the newly reunified Germany to raise the altitude limit for low-level NATO flights from 150 to 300 meters. In the same year, Belgium, in a bid to counter the excessive noise generated by low-level flights, also banned low-level flying by NATO aircraft, though it left the minimum altitude for its own military aircraft at 80 meters. In short, the problems of safety and environmental impact are relevant elsewhere in Europe as well.

Trentino-Alto Adige has, unfortunately, also experienced other destructive incidents besides the Cermis disaster. Two of these mishaps, which were similar in nature, jeopardized the security of civilians. The first occurred on 30 August 1961 when an aircraft belonging to the French Air Force sliced through the drive cable of the Mont Blanc-Aguille du Midi-Punta Hellbronner cablecar installation causing three gondolas to fall and killing six people. The passengers in the other gondolas, which remained suspended in mid-air, had to wait an entire night before they were rescued. The second accident, frequently referred to by the Committee, did not cause any deaths. On 27 July 1987, an Italian Air Force aircraft cut through the cables of the Falzarego installation, but the gondolas were parked in their stations. The two members of the aircrew parachuted to safety to the banks of the Cellina river. The number of protests and the level of public interest at the time was low. It took the catastrophes of Ramstein (8/26/88) and Casalecchio del Reno (12/6/90) to prompt more widespread and energetic protests against acrobatic flying and training flights in general.

As regards the environmental issue, a search through newspaper archives turned up a protest dated 13 February 1995 from the International Commission for the Protection of the Alps (CIPRA), which refers to noise pollution and the two/three million overflights a year in the Alpine area, including high-altitude flights, low-level flights, hang gliding, paragliding and helicopters. According to CIPRA, the noise pollution was especially damaging to wildlife.

The Cermis mishap marked a watershed between two periods: the first was marked by isolated protests and muted expressions of concern; and the second, which can be dated from the catastrophes of Ramstein and Casalecchio, saw a wave of indignation and growing demands for safety and respect for the environment.

In carrying out its inquiry, the Committee remained constantly aware of the great impact (emotional and otherwise) that the Cavalese catastrophe and the phenomenon of low-level flying has had on the Italian public.

The reports and testimonies compiled by the Committee paint a picture of life in the Alpine valleys that was been massively disturbed by the continuous overflight of military aircraft at low and very low levels. At the same time, the Committee found that local people maintained an essential faith in the institutions responsible for guaranteeing their safety and health. The Carabinieri, to whom the reports and complaints later passed on the Committee were originally made, were singled out by local authorities and citizens as a point of reference and trust. Giorgio Fontana, a former mayor of Cavalese, personally witnessed an aircraft flying under cableways in October 1981, is the author of two official complaints, one of which was ignored and the other denied by the military command. In a statement, he declared: « The main failing was upstream in the process, because it was here that those who had the power to raise the alarm and intervene in time to avert a disaster demonstrated their total indifference ». Mr. Fontana recalled that locals, especially those dwelling at the bottom of the valley who were most exposed to low-level flights, were fearful of the supersonic bang. He also noted that since 1998, the number of overflights had increased. He remarked that the negative response to his second complaint from of military authorities , who denied the existence of flights over Cavalese, « upset us, and made us look like idiots ».

An unfortunate tendency to underestimate the phenomenon emerged along with evidence of a growing divergence of opinion between military and civilian institutions, and between the military and local people. As Werner Pichler, representative of the *Comitato 3 febbraio*, pointed out: « In reply to a question raised by Councilor Sergio Vanzo, the local government declared that it was aware of the fact that aircraft were flying below the cables of the cable car, but since it had already lodged a formal protest and, unfortunately, received no response, it was reluctant to lodge further complaints. This was the reply we got from the Town Hall. » Mauro Gilmozzi, Mayor of Cavalese, took it upon himself to voice the disappointment of the local institutions. He noted that « the disasters waiting to happen are not just those resulting from low-level flights, but rather any accident for which the cost of compensation is lower than the cost of the preventative action that might be taken. » Mr. Gilmozzi added: « The flights that took place over and over again, mostly during the three summer months (the troublesome flights were always in summer rather than winter), were for the most part national, legal, authorized and at the agreed altitudes, and so it was not possible to lodge protests because they would have done little good. » He continued: « When we made appeals against these flights, which passed half way up the valley and produced enormous noise, causing anxiety and alarm among local people, we were always met with a response along the lines of: 'There is noting illegitimate here; we must measure the needs of defending the State against the fears of local inhabitants, who are, perhaps, kicking up a fuss over nothing.' Gilmozzi pointed out, however, that « in our area, flying at an altitude of between 300 and 600 meters means flying half-way up the sides of the valley, waking up children, rattling windows and scaring the people who live there »

The testimony of 14 Italian eyewitnesses submitted to the Camp Lejeune investigators enable us to get some idea of the emotions of those who, though unaware of what had happened, witnessed the very low-level flight. On 3 February, Barbara Demattio was babysitting in Castel di Fiemme. The Prowler passed so close to the balcony outside the window of the house in which she was staying that she could not even see its full wingspan. « The windows shook and the child immediately woke up and started screaming, » she recalled. Demattio reported that she had managed to see the rest of the flight and even saw the gondola swinging after the impact. « I did not see the impact itself because the jet was obscuring my line of vision, but I did notice immediately that one of the three cables of the cable car was missing. » Marco Vanzo, a hang-glider, recalled how he was with a friend near the Cavalese sports ground, « when I saw a military jet coming towards us. To avoid the hill we were on, which is called Colle delle Streghe, the aircraft had to bank sharply to the right until it was flying at an angle of 90 degrees perpendicular to the ground. We were afraid that it was going to hit us. » The other witnesses include Andrea Mover, 16, who was at home in San Michele d'Adige, Mario Bleggi (on the outskirts of Ciago), four skiers on the slopes of Lusan, Giuseppe Ciresa in Salorno and Moreno Vanzo, who was working on the roof of a house in Capriano. All witnesses reported being very afraid at the time. Siglinde Dejaco, who was skiing with her son on the Lusan slopes, recalled that she had been so alarmed that she instinctively threw herself down in the snow to avoid being hit. Patrizia Pichler also felt so threatened when the jet flew over the ski slope that she curled herself up in a ball. She remembers fearing the plane would smash into the village church. Alfred Oberhauser, 26, a native of Lusan, saw the plane fly over his village at so low an altitude that, « for a moment I was afraid it was going to crash. » Giuseppe Ciresa confirms that the plane flew low over built-up areas. He recalled how he was stopped at a traffic light in Salorno when he saw the plane pass directly overhead. Moreno Vanzo declared: « The military jet passed over my head while I was in the center of the town, and for a moment I had the impression that it was going to end up in Lake Stramentizzo. »

Apart from the eyewitness accounts gathered by the Committee, reports in the aftermath of the tragedy demonstrated that this was no isolated episode. The first act of the Association of Victims' Relatives, set up in July 1998, was to report the occurrence of new violations by military jets after 3 February. These violations were confirmed by the Carabinieri and municipal police officers. Reports came in from all over Trentino and Alto Adige of recent overflights by military jets. Jets were reported being seen over Margone di Vezzano headed in the direction of the Dolomites of Brenta, over Val di Non, Rovereto, Lake Garda, and so on. The last complaint of a low-level flight over Cavalese dates back to October 1998, and sparked reaction from Hons. Detomas, Olivieri and Schmidt, three parliamentary deputies from Trentino. The fears of the local population were voiced by the local governments of the area, including the government of Alto Adige, which has some experience in this field, having filed its first complaint as far back as 27 June 1992. On 27 March 1998, not long after the Cermis mishap, the President of the Provincial Government of Bolzano, Luis Durnwalder, called on the Minister of Defence Beniamino Andreatta to extend the ban on military flights to include Alto Adige.

On 4 February, the day after the accident, the Provincial Government of Trento approved motion no. 139 calling on the Italian Government to bar all military forces present in Italy from carrying out low-level flights over built-up areas. On 5 February 1998, the Conference of the Presidents of Regions and Autonomous Provinces declared that « defense policy considerations must not override the rights of local communities ». On 9 February, the President of the Province of Trento, Carlo Andreotti, urged the Prime Minister Romano Prodi and Minister of Defence Beniamino Andreatta to make all ordinances regulating military flights known « to all Powers operating them ». He also asked the Minister to notify the military powers in question of the initiatives that need to be taken and, if necessary, « arrange specific meetings to verify the state of implementation of the measures taken ». On 13 March, Minister Andreatta informed the Province of Trento that he had outlawed flights over Val di Fiemme and had doubled the minimum safety altitude. Cavalese is at the center of the prohibited area, which extends as far northwards as Bolzano. The minimum safety altitude for the entire area of the Alps was set at 2000 meters, compared with 1000 feet for the rest of the national territory.

Even so, the overflights did not stop. The first reports of low-level flights over Margone di Vezzano and Folgaria on 25 March 1998 turned out to be unfounded. The reports in fact referred to flights which, as the Italian Air Staff determined, took place at regulation altitude. In early July, however, reports came in of flights over Torbole and then Alto Garda. Local protests were forwarded to the Ministry of Defence. The Provincial President, Carlo Andreotti, alerted the Ministry that low-level flights had taken place on 1 October 1998 over Fondo and built-up areas in Upper Val di Non. More precisely, a dispatch from the Trento prefecture spoke of three jets passing over Fondo, four over Molina di Ledro and two over Cavalese. Mrs Dora Zanna told reporters: « I was feeding my child – I live in a second-floor garret apartment in the center of Fondo – when everything started to vibrate.

When the windows suddenly started shaking terribly, I thought it was an earthquake. I looked out the window and saw these black airplanes heading straight for my house, as if they were going to crash into it. They must have just missed hitting the rooftop. They did this twice in a row: it was sheer madness. And it's not as if we weren't used to it, they had passed overhead the year before as well. But they had never before come down to the rooftop level. » Other witnesses spoke of a trail of exhaust fumes left behind by the two jets. Protests, though more muted this time, continued. The last group of complaints referred to a fighter which flew over the built-up area of Mattarello, a village in the district of Trento, on 7 April, and two F16s or Tornadoes that made low-level flights over Ceole on 27 September 1999.

In the course of their inquiries, both the Committee and the Public Prosecutor of Trento found that the Italian Air Force felt that the many reports filed in the past were made too late and, above all, were too imprecise. The Air Force argued that this made its investigative work too demanding, and explained that since it could not base its investigations on objective evidence, it was forced to doubt the credibility of the complaints. This points to an evident need to ensure that the monitoring of flights by Italian and foreign military aircraft over Italian territory is careful, thorough and subordinate to a comprehensive and continuous system of command backed by instruction in accident prevention. The regulations governing flight operations also need to be assessed not only to guarantee safety, but also to reduce noise pollution and environmental impact by as much as possible and thereby safeguard the well-being of local communities.

Regarding the necessity for low-level training flights, both the Chief of Defense Staff and the Minister of Defence, Beniamino Andreatta, expressed the opinion that, « low-level flying is recognized at all levels as a training prerequisite, and is closely tied to ensuring flight safety. It is an incontestable fact that in any profession, training is synonymous with security, especially if the profession involves a high level of specialization such as the piloting of a fighter jet. This generally accepted principle forms the basis of the aviation activities of all the NATO states, as well as those of other countries that are not members of the alliance. »

All the same, it seems clear that if the specific safety requirements of military flight operations are to be successfully reconciled with civilian safety, strict controls must be in place to enforce compliance with rules and regulations, and the authorities must be willing and able to prosecute anyone who contravenes them.

6. ANALYSIS OF ACTIONS TAKEN AFTER THE DISASTER: JOINTLY-AGREED MEASURES AND THE TRICARICO-PRUEHER REPORT

The following sections deal with the revision of flight rules and procedures in Italy, the measures introduced directly after the Cermis mishap, and the measures introduced at a later stage as a result of the conclusions and recommendations put forward in the report of the Tricarico-Prueher Bilateral Commission This is followed by comments on aspects that seemed to merit particular attention.

6.1 Measures adopted after the incident

Very shortly after the mishap, the Italian and US authorities introduced a series of measures with immediate effect, some of which referred to operational practices, others to flight safety. The most noteworthy were those that: introduced new restrictions on minimum flight altitudes; set forth new rules for the maintenance of radio links with Italian air traffic control; stipulated the use of Italian charts for flight planning; and instituted pre-flight information briefings with Italian air traffic control. For the purposes of examination, it is useful set out the complete the list of measures as they appeared in the Tricarico-Prueher report.

As a first step, with the intention of safeguarding civilians, Italian government authorities tightened the rules on low-level flying by imposing further limitations. The minimum altitude for flights over the entire Alpine region, which had been 2,000 feet (approximately 600 meters) above ground level, was raised to 13,000 feet (approximately 4,300 meters) above average sea level for an area extending about 30 km around the town of Cavalese, delimited by specific geographic co-ordinates. Meanwhile, the minimum altitude for the rest of the national territory was doubled, excepting training zones over the sea. The previous minimum altitude of 500 feet AGL for low-level flying in Italy was increased to 1,000 feet. The minimum for other selected areas, used exclusively for operational low-level training flights, was increased from 250 to 500 feet.

It should be said in respect of these restrictions that they were devised and imposed for the sole purpose of reducing the environmental impact of low-level flights. From a safety perspective, the previous limits were already adequate.

A review was also made of the tactical training areas and other areas set aside for low-level training activities. The review took account of the population density of the areas in question and the aim was, once again, to reduce the distress to the local population by as much as possible.

At the same time, it was also stipulated that during low-level flights aircraft had to remain in radio/radar contact with Italian flight controllers as much as possible.

In the past, radio/radar contact consisted for the most part of sending position reports from a few significant points along the flight route, sufficient to insure that flights were proceeding as planned. The new requirement, therefore, is not only innovative but also marks a general improvement. The fact that this new obligation exists, however, does not mean it is always feasible to keep track of an aircraft for the entire duration of its mission, because the topography of certain mountainous zones makes constant radio and radar contact impossible.

The Italian Air Force has nonetheless taken steps to enhance the effectiveness of its flight monitoring systems wherever possible. As the present Chief of the Air Staff explained during his testimony, the Air Force has introduced a system for handling reported sightings of military planes from anywhere in the country. In this way, citizens who believe they have witnessed unlawful flight maneuvers have the opportunity to help make sure they do not recur. The aim of the system is to accord real credence to reports of violations. As we have seen, the effectiveness of reports and complaints in the past was limited by the difficulty of gathering objectively verifiable evidence. Thanks to the new methodology, complaints are forwarded more rapidly, and so the subsequent investigations are made with less delay.

A directive to enhance the reliability of reports was drawn up and introduced on the basis of the experience gained in recent years. The directive provides for a new channel layer of reporting based, where possible, on more reliable evidence backed by substantiated detail from citizens or law enforcement agencies who report military flights that they believe to be in violation of the regulations. The United States authorities introduced a series of modifications to their procedures after the mishap, seeking to ensure their aircrews are fully aware of any altitude restrictions in force. The modifications can be summarized as follows:

the formalization of control procedures to ensure the accurate distribution of flight information by obligating commanders to sign the relevant Flight Crew Information File (FCIF);

the systematic checking of procedures by introducing a « read-and-initial » procedure for crews to demonstrate that they have read the FCIF (so that pilots are not allowed to fly unless their signature is on the FCIF), and by means of periodic spot checks to ensure that updates and variations are properly observed;

the introduction of obligatory and standardized instructions on low-level flight by means of special briefings for any crew that is about to be deployed;

the formalization of standard operating procedures that include greater detail on local rules and regulations. The purpose of this is to ensure that commanders and crews are better informed than they have been hitherto of the procedures, regulations and any updates made to them.

The measures outlined above are all essential if we consider that, in addition to the gaps they contained, the previous procedures were followed infrequently or not at all. Procedures for certain aspects simply did not exist. Rather than mere modifications of existing regulations, then, the new measures are entirely innovative and have rectified various lapses and omissions in the USMC, and, particularly, the VMAQ-2 chain of command. Taken together, the omissions and defects of the old system contributed considerably to the failure of VMAQ-2 to discharge its duties of supervision as it should.

To enhance aircrews' familiarity with the routes they fly, while also paying heed to the risks and dangers of flights, the following measures were also taken:

only aircraft belonging to the 31st Fighter Wing permanently stationed in Aviano are authorized to engage in low-level training flights. New criteria for the planning and execution of these flights by the 31st FW were set down;

US aircrews must use Italian maps on a scale of 1:500,000 as their source of information when planning flights. They are also required to undergo special briefings on low-level flights from Italian air traffic controllers and, before any mission, must certify that they have looked over all the material in the briefings and are aware of all pertinent limitations and warnings set out in the relevant NOTAMs.

Without examining the question of whether it was correct to restrict low-level activities to the 31st FW alone, we can say that the other measures were necessary and appropriate. It should be noted that Italian regulations (i.e. the BOAT manual and SOP ADD-01) already stipulated the use of navigation charts on a scale of 1:500,000 published by the Italian Air Force's Cartographic Information Center (CIGA) rather than those published by the International Civil Aviation Organization – Italian Alpine Club (ICAO-CAI).

Finally, to improve the administration of operations by American commanders, the US authorities decided to:

hold obligatory briefings for wing commanders before any deployment to make certain that they have full details about what sort of training activities are planned and how frequently they will be performed;

have the Marine Corps Command formalize an « operational risk management » (ORM) procedure, in keeping with the current practice of other armed forces, which will include an ORM assessment for each flight that will be submitted for approval to the appropriate level of authority in the chain of command;

examine the mission flight recorder after every low-level mission to ascertain that the regulations and restrictions were complied with. This examination must be carried out by third parties (i.e. outside the aircrew's unit).

As they are designed to amplify the factors contributing to general safety during training, the measures above can be considered as constituting an apt response to and an improvement on previous practices.

6.2 Subsequent measures: the Tricarico-Prueher Report

The Italy-US Bilateral Commission

One year after the Cavalese catastrophe, the need to review the adequacy of international and domestic laws on flight operations and safety by US military forces operating in Italy prompted the United States and Italy to institute bilateral talks on the issue. At a summit meeting in March 1999, the Italian Prime Minister Massimo D'Alema and the US President Bill Clinton concurred on the need to carry out a joint review of the existing measures, rules and procedures regulating low-level flights in Italy with a view to assuring maximum safety during US training flights. Accordingly, on 9 March 1999, the Italian Minister of Defense and the US Secretary of Defense, acting with the mandate of their respective leaders, instituted a Bilateral Commission whose task was to consider what corrective steps might be taken to enhance flight safety, determine whether these steps proved adequate to their purpose and then decide whether further steps were necessary. The commission had to ensure that American operations were rendered compatible with safety requirements while bearing in mind the shared obligations and commitments that NATO membership entails. The commission consisted of two delegations of ten members. The Italian delegation was headed by General Tricarico, the American delegation by Admiral Prueher. The commission began work on 15 March 1999 and produced its final report on 13 April.

Conclusions of the Tricarico-Prueher Bilateral Commission.

The commission recognized that while the rules and procedures regulating low-level training flights in Italy must guarantee safety, they must also accommodate the necessity for military units to be operationally ready at all times and allow pilots to maintain their professional skills. The commission also recognized that the rules and procedures must be compatible with NATO obligations and bilateral commitments. With these prerequisites in mind, the commission drew a number of conclusions, the principal ones of which we can summarize thus:

the primary guarantor of flight safety is unit/command leadership that demands thoughtful, disciplined adherence to proven procedures;

operational training, including the safe conduct of low-level training, in the environment in which forces will be operating is necessary to maintain unit readiness and aircrew currency in support of potential bilateral or NATO missions. Although US units do not deploy to Italy for the purpose of acquiring low-level flying proficiency, they must be able maintain proficiency while deployed to Italy. Consequently, Italian Defense Staff will take into consideration, on a case-by-case basis, the training requirements of US units;

operational and safety procedures were in place and were sufficient at the time of the accident, but knowledge of and adherence to those procedures were incomplete. Of primary significance is that there was no established system to verify that deployed squadrons received and read all relevant flight-related information.

The Tricarico-Prueher Commission further concluded that the US command and control relationships before the incident were complicated and somewhat unclear, and may have contributed to an environment in which insufficient emphasis was placed on familiarity with and adherence to established flight procedures. The US had since reviewed and modified command and control relationships of US squadrons deployed to Italy, clarifying host-tenant relationships. Among these modifications were those to operations order (OPORD) 4247 issued by the US Commander in Chief Europe (CINCEUR) regarding the participation of the USA in the NATO Stabilization Force (Operation Joint Force), and by the Memorandum of Agreement (MOA) dated 2 December 1998 between USAREUR and USAFE regarding the role of the 31st FW. In particular, it was noted that before the accident, the VMAQ squadrons deployed to Aviano took their orders from COMSTRIKEFORSOUTH (CSFS) when acting under the NATO rather than the US chain of command. CSFS had oversight for NATO tasking, but responsibility for US-related activities, including training missions, appeared to lie with CINCEUR This US command structure was not sufficient to provide adequate oversight. After the Cermis mishap, it was decided that as far as operational tasks were concerned, units stationed in Aviano (including the VMAQ squadrons) should be accountable to MARFOREUR (a component of EUCOM). At the same time, the modifications to OPORD 4247 further established that:

host units will provide all deployed units with comprehensive information regarding all flight procedures and regulations;

all deployed units will follow host unit procedures when these procedures are more restrictive than Host Nation or service procedures;

host units and deployed units will establish written agreements for procedures for both training and operational missions.

The relationship between VMAQ-2 and the 31st FW at the time of the accident was conducted on the basis of a « host-tenant » relationship, but lacked formal guidelines describing the obligations and responsibilities of each unit. After the mishap, the 31st FW was given a larger and more visible leadership role. This greater role was confirmed in the Memorandum of Agreement (MOA) of 2 December 1998 between USAREUR and USAFE. The memorandum specifically assigned the 31st FW the task of liaising between the Italian installation commander and USAREUR. It also specified that all flight activities should be supervised by the Deputy Commander of Operations of the 31st FW, who would be the sole point of contact with the Italian Air Force for the management of operational issues at the Aviano base. According to the Tricarico-Prueher Commission, the limited but well-defined restructuring envisaged in the MOA between USAREUR and USAFE and the recommendations for a designated US authority would facilitate the creation of a workable system for overseeing deployed units and forestalling confusion in the operating chain of command.

The Tricarico-Prueher Commission also found that:

command and control arrangements between Italy and the United States are regulated by numerous bilateral and multilateral agreements including the North Atlantic Treaty, the NATO SOFA, the 1993 MOU relative to Aviano and the supplementary technical arrangement of 1994. These agreements set down the basic command and control agreements and affirm Italian sovereignty over its airports and airspace. The modified procedures for the coordination of tasks and responsibilities between Italy and the United States spelt out the powers of Italy to enforce flight safety rules;

the corrective measures for flight operations and safety introduced immediately after the Cermis incident were fully appropriate to ensuring the safety of flights by American forces in Italy. Once they have been supplemented by the recommendations of the bilateral commission, and then institutionalized and standardized throughout Italy, the measures will make US flight operations even more consistent with Italian safety requirements and the shared NATO commitments and obligations;

an important objective of the post-accident regulatory changes has been to establish a clear line of accountability for the quality control in flight planning. This objective is central to the proposal to establish a Designated US Authority at each airbase in charge of disseminating comprehensive information to American units in Italy, coordinating with the Italian Base Commander, receiving certifications from unit commanders attesting that their air crews are both mission-ready and aware of the regulations in force in the relevant zone.

In addition to the measures introduced by CINCEUR and the American military, the commission made a series of recommendations designed to ensure that air crews operating in Italian aerospace comply with the procedures. The new measures standardize procedures and emphasize the need for Italian approval for all operations inside its sovereign air space.

We should also note that the Bilateral Commission examined the situation obtaining at the time of the accident from a variety of perspectives: legal, procedural, operative, training-related and organizational. It focused on the responsibilities of the United States and, in common with the Command Investigation Board (CIB), its conclusions highlighted supervisory errors in the chain of command. With respect to the investigation into this specific aspect and the inquiry into the chain of command in general, the CIB limited itself to making some rather brief and generic observations regarding possible failings, notably that the US chain of command was too complicated, unwieldy and imprecise (for national and NATO operations alike). The Tricarico-Prueher Commission, on the other hand, looked at the same issue in more detail and produced an in-depth examination of the pertinent issues. The commission learned from US sources that the body with command authority over VMAQ-2, namely CSFS, was responsible for oversight for NATO tasking, but not operations of a national character, including training. It turns out that responsibility for US operations apparently resided at CINCEUR level. The adverb « apparently » is symptomatic of the absence of transparency. It signifies that other levels or authorities might, or might not, also have been involved, and leaves open the possibility that CSFS might have had some part to play, albeit a marginal and certainly unclear one. In any event, on the US side it was established that the structure of relationships within the US chain of command in the period preceding the mishap was insufficient to guarantee adequate oversight surveillance and control, a conclusion shared by the Bilateral Commission.

It was also possible to establish even more clearly that the relationship between the VMAQ-2 squadron and the 31st FW was based on customary « host-tenant » practices, but lacked the basis of a formal agreement for the division of responsibilities and lacked guidelines that set out the obligations of each squadron/unit and the reciprocal relationships between different units. On the basis of the evidence gathered in the course of further investigations and the verifications and the disclosures that they led to, the Tricarico-Prueher Commission was able to pinpoint and define a series of measures aimed at rectifying the defects in the US system of organization and eliminating other aspects capable of causing uncertainty or ambiguity. So, although the measures introduced in the immediate aftermath of the incident were already considered adequate, the Bilateral Commission consolidated and reinforced them further with these other improvements.

Recommendations of the Bilateral Commission.

After investigating the issues within the scope of its mandate, the Tricarico-Prueher Commission underscored the close link between flight safety and professionally conducted flight operations. The Commission concluded, as did the US Marine Corps Command Investigation Board, that the accident was caused by aircrew error, and that supervisory error occurred within the aircrew's chain of command. Accordingly, the Bilateral Commission provided seven recommendations (together with details and explanations), which are briefly summarized below.

New procedures for US low-level flight training

Low-level training flights (referred to as very-low-level flight [2000 ft. AGL and below], or « BBQ », in the BOAT manual) must follow the following procedures:

in accordance with current bilateral and NATO agreements, US units permanently based in Italy shall be authorized to carry out low-level missions up to the maximum limit of 25% of authorized weekly flights; i.e., those certified by the Designated US Authority with the agreement of the Italian base commander;

non-permanently based units will be authorized to carry out low-level flights only within the context of exercises authorized by the Italian Defense Staff and where such flight activity is in keeping with the objectives and procedures of the exercise itself; or when necessary for training aimed at carrying out air operations for which the units in Italy are based, and when certified by the Designated US Authority and authorized by the Italian Defense Staff;

units based on carriers and amphibious ready groups will be authorized to fly low-level flights only when certified and approved in accordance with pre-established procedures, and shall in all cases require authorization from the Italian Defense Staff.

An extremely important feature of the Tricarico-Prueher recommendations is the decision not to allow any further low-level flights over Italian national territory by the foreign air force units (including US units) unless they are permanently based in Italy. Exceptions to this rule are possible, but they must be approved by Italian authorities, who will decide on a case-by-case basis. Moreover, even units that are permanently stationed in Italy have had such flight activity significantly restricted. In addition, as the Chief of Defense Staff noted in his hearing before the parliamentary Committee, units temporarily stationed in Italy that have been authorized to carry out low-level flights may not in any case do so over the Alps.

Designated US authorities

It was agreed that a US commander (for example the Commander of the 31st FW at Aviano) will be appointed at each Italian airbase as the Designated US Authority responsible for overseeing and monitoring compliance with American and Italian flight safety regulations. US units may conduct flight operations only after receiving certification from this authority. The following specific arrangements have been put in place:

US unit commanders will be responsible for certifying to their Designated US Authority that unit aircrews are qualified for their assigned operational and training missions;

the Designated US Authority will review and submit the daily flight schedule to the Italian airbase commander, certifying that the mission has been planned consistent with Italian flight regulations;

the Designated US Authority will coordinate with the Italian base commander to ensure the local procedures are consistent with Italian flight safety regulations;

the Designated US Authority will provide comprehensive information regarding US and Italian flight regulations to all local US units;

the Designated US Authority will certify to the Italian base commander those units that are qualified to perform low-level training.

Liaison and/or exchange officers

It has been agreed to assign Italian and US liaison and/or exchange officers with selected US and Italian units to optimize the flow of information and facilitate communications. The Italian liaison and/or exchange officers will assist US units in understanding Italian flight procedures, assure the complete and efficient flow of information and ensure that the units concerned receive the relevant Italian publications and materials.

Flight Safety Board

It has been agreed to appoint US flight safety representatives, who will receive indoctrination briefings from by Italian flight safety officers and will then meet periodically as a Flight Safety Review Group with the Italian Flight Safety Board Representative to discuss issues related to regulations, special circumstances and sensitivities inherent to the Italian flight environment. The US Flight Safety Representatives will review annually the findings and recommendations of the Italian Flight Safety Board with US units located in Italy.

Flight information web site

There are plans to build an information archive using Internet-based technology to give near real-time access to the most current theatre-specific information to aircrews prior to deployment.

Finally, two other recommendations were made for the periodic review and institutionalization of the new procedures. The first recommendation is that the procedures should be open to review in order to ensure that all relevant factors are considered and incorporated. The second is that the new procedures should be taken into consideration during the current review of bilateral agreements between the USA and Italy, to be formalized as technical arrangements so that the agreements may better reflect the real needs of the two countries.

To summarize briefly, the critical review of the rules and procedures for the execution of training and operational activities by US forces based in Italy carried out by the Bilateral Commission led to the conclusion that while the rules and procedures in force at the time of the Cermis mishap were adequate with respect to flight safety, the level of awareness and compliance by United States personnel was incomplete and therefore defective. For example, there was no system in place to ensure that US units deployed to Italy had received and read all the information pertinent to flight activity. The corrective operational and safety measures introduced by the US authorities after the incident are analogous to those that the Italian military had already introduced, and were appropriate to creating an additional margin of safety. The corrective measures included a series of new restrictions on minimum altitudes, a requirement for radio contact with Italian air traffic control agencies, the suspension of flights by air force units not permanently stationed in Italy, the use of specific charts for flight planning and the holding of preflight briefings with Italian air traffic controllers.

The inquiries carried out by the Bilateral Commission also confirmed the existence of weaknesses and confusion in the American chain of command and control at the time of the incident In particular, the Commission concluded that there were failures of communication between the Aviano-based 31st FW and squadrons temporarily posted to Italy such as the VMAQ-2 Squadron, and between the VMAQ-2 and the military commands to which it reported. This lack of clarity generated confusion about the guidance and oversight responsibilities of the authorities in charge of the units, the responsibilities and obligations of the units themselves, and the relationships between the various units in matters pertaining to operational and training activities.

The Bilateral Commission also found that US authorities had since reviewed and modified the command and control relationships of American units deployed, or about to be deployed, to Italy by clarifying host-tenant relations and instituting the consequent corrective measures.

The Bilateral Commission also underscored the validity of the measures adopted on both the Italian and American sides, and put forward its own recommendations. From an organizational perspective, one of the most important recommendations was for the appointment of a Designated US Authority to each Italian airbase hosting US units. The Designated Authority will be responsible for certifying that the flight activities of US units in Italy are planned and carried out in full compliance with current Italian regulations and laws. The new system has helped better define and strengthen the role of the Commander of the 31st FW with regard to temporarily deployed units. The Commander's level of involvement, and hence level of responsibility, has become more substantial and visible. The new figure of the Designated Authority has not impinged upon the clear prerogatives and powers of other commands, nor altered the nature of the relationship between the US military and the Italian base commander. The issue of responsibility was touched upon frequently and is evident in the details of some of the measures introduced, and was an issue especially relevant to all US personnel, aircrews and pilots stationed Italy. The measures laid considerable stress on the need to make US personnel more responsible for their actions by obliging them to keep abreast of new developments and information on flight activities, and ensuring that they are constantly aware of the fact that they are based in Italian structures, operating in Italian airspace and therefore subject to rules accepted by both countries, who recognize the absolute sovereignty of Italy.

Another important novelty was the appointment of liaison officers, especially Italian officers posted to US units, and the introduction of joint activities for the exchange of information regarding flight safety.

The Bilateral Commission presented its recommendations in a precise and detailed manner, and they were implemented by means of the revision and/or the drafting of detailed formal proceedings that supplemented existing rules and measures introduced after the incident. The adoption of the Commission's recommendations tightened the existing regulations and procedures for US flight operations in Italy, especially low-level flights, adding clarity, substance and incisiveness.

The hearings held by this Parliamentary Committee found that the Tricarico-Prueher recommendations had almost all been implemented by the military authorities, and will be taken into account in future technical arrangements. In their simplified version, technical arrangements, which are subject to international law, may be considered obligatory and binding regardless of their approval by Parliament.

The hearings before the Committee engendered the feeling that the Tricarico-Prueher report, which was largely the result of the proposals of the Italian delegation, filled a number of gaps that had remained in spite of the adoption of regulations to deal with them. Even so, certain aspects still have to be cleared up, a task that may be accomplished during the drafting of the technical arrangements, which will take on board the recommendations made by the Tricarico-Prueher Commission. We refer, for example, to the system of categorizing flights. The specification of spatial and temporal restrictions and the characteristics of flights underscore the importance of establishing whether aircraft that fail to respect the recommendations of the Commission are on « official duty » as defined by the SOFA. It is also important to establish the status of US military aircraft that are present in Italy as a result of NATO membership but operate outside NATO planning procedures while operating under US rather than NATO command. Obviously, a response to the effect that this sort of exemption to Italian rules cannot be contemplated will have important consequences both as regards the question of responsibility and the exercise of civil and criminal jurisdiction over the parties responsible. It is therefore clearly necessary to establish what is meant by « official duty » in this context.

There is also a clear need to arrive at a better definition of the powers of Italian commands to intervene, impede and even suspend US activities if a mission fails to comply with the limits and operational conditions described above. It is to be hoped that Italian commanders will be granted sufficient and immediately effective executive powers of intervention because this is the only way to make them responsible for enforcing compliance with flight regulations and affirm Italian sovereignty over Italian airspace and territory.