

One of Europe's rare criminal prosecutions of controllers who were working an aircraft which became the subject of a fatal accident occurred in Italy in 2004. Many who are far from the State of Occurrence of this accident and the controversy surrounding the subsequent prosecution will be aware of it.

THE 2004 CAGLIARI ACCIDENT AND AFTERWARDS

The successful prosecution has been seen in Italy and elsewhere as a classic example of how difficult it can be in some countries for a 'just culture' to survive the need to balance safety improvement with the wider need of the judicial system to deliver an equitable interpretation of the law.

In this issue of Hindsight, we have first a summary of the circumstances which led to the accident and the findings and conclusions of the independent investigation into it carried out in accordance with the principles of Annex 13 by the agency responsible, the ANSV (Agenzia Nazionale per la Sicurezza del Volo). This is followed by a summary of the criminal prosecution of two military air traffic controllers which followed and by two commentaries on these prosecutions from an air traffic control perspective.

The accident investigation

by Captain Ed Pooley

This account summarises the findings, conclusions and safety recommendation of the ANSV Investigation carried out under ICAO Annex 13 principles with the sole objective of preventing accidents and incidents and specifically excluding any assessment of guilt and responsibility. It is based on the Final Report of the Agency which was published on 1 July 2009. This was not made available in English translation but a copy of the full report in Italian, an unofficial and partial translation into English and a longer English language summary than provided here may be found on SKYbrary¹

During the evening of 23 February 2004, a Cessna 550 Citation being operated out of Milan by Vienna-based air taxi company City-jet Luftfahrtgesellschaft and flown by a crew of two Austrian pilots was chartered at short notice for a medical mission. A donor heart for transplant had become available in Rome and a suitable recipient was initially located in Catania. During departure from Milan, the Catania patient became unavailable and the flight positioned instead to Cagliari Elmas. There, a three-man medical team was boarded and flown to Rome Ciampino in the early hours of the following day, where the aircraft landed at 0051Z. On arrival, the aircraft and crew were to await the return of medical team with the donor heart.

With the medical team and their 'cargo' on board, the flight departed Ciampino at 0400Z. The flight proceeded uneventfully in good weather conditions and shortly after the aircraft had been cleared to descend to FL 090, it was transferred to Cagliari APP, which passed the destination weather and runway in use – 32. Shortly afterwards, the aircraft was advised that the ILS-PAPA procedure for runway 32 should be expected. This procedure begins at the CARVOR at 5000 feet and involves flying the

256 radial until a right turn is made onto the ILS LOC. The chart used on the following page shows the MSA for the sector in which the aircraft flew was 5700 feet QNH and of course why the procedure required inbound aircraft to first fly to the VOR. When acknowledging this clearance, the aircraft commander who made all radio communications during the accident flight, advised that should the airport be acquired visually, then a visual approach would be requested.

Shortly afterwards, having just vacated FL 100 for the cleared altitude of 5000 feet QNH with 28 nm still to run on track to the CAR VOR from the north east over the sea, the aircraft commander called field in sight. After verifying that the aircraft would maintain own separation from obstacles, Cagliari APP approved the request. The aircraft began turn to the right and began to track towards a 4nm final for runway 32 which was continued until the subsequent impact with terrain. Shortly after this, Cagliari APP called Rome ACC to check the position of the aircraft (because there was no corresponding return on their radar display) and having been advised that it was leaving FL 072 about 22nm from Cagliari, transferred the aircraft to (Cagliari) Elmas TWR with the proviso that descent should not continue

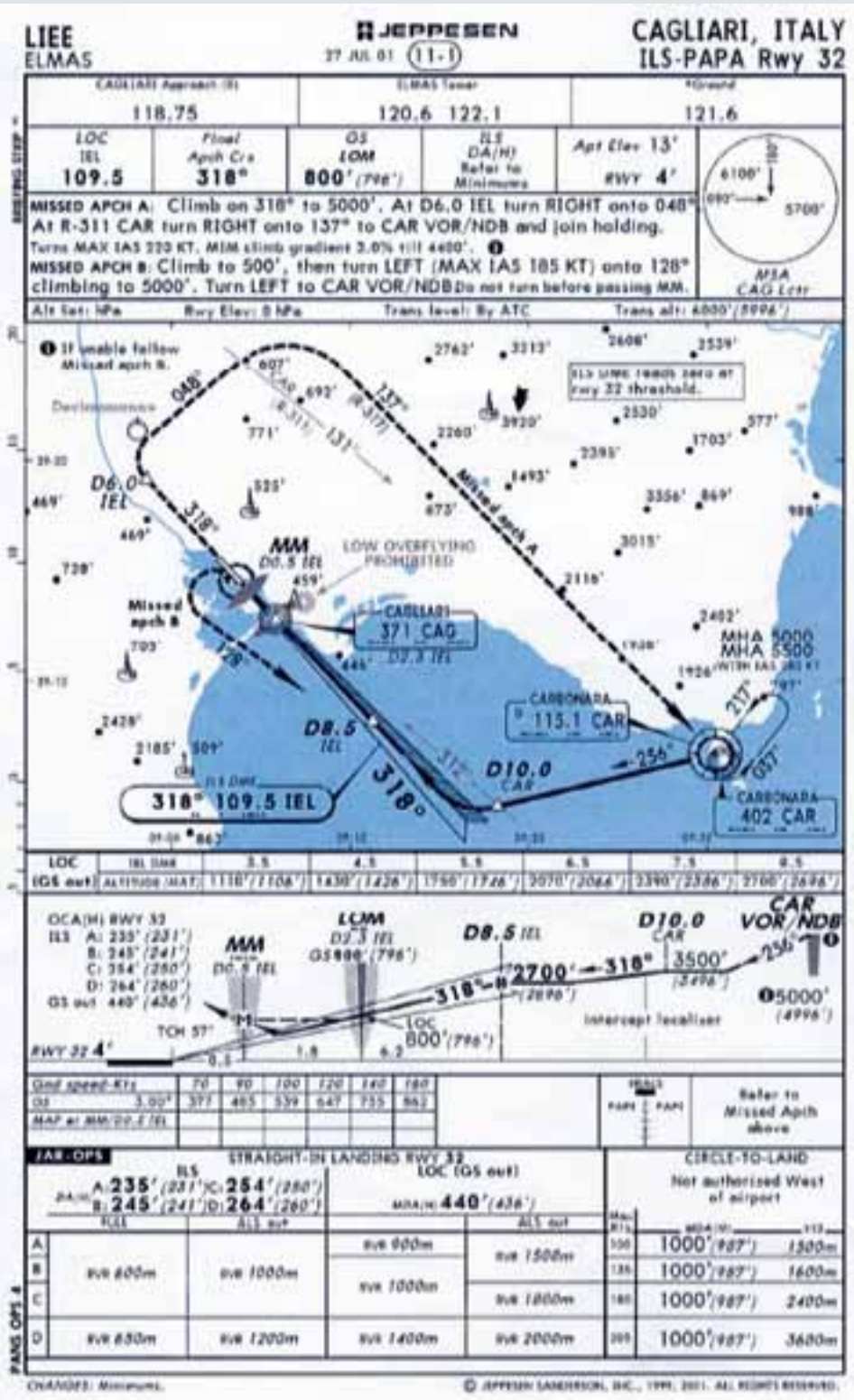
below 2500 feet QNH until approved by TWR.

The aircraft checked in with TWR at 0448Z and were instructed to call on short final. In acknowledging this instruction, the aircraft commander reported their position as 23nm from the Cagliari passing an altitude of 4800 feet. Collision with terrain on track in the Sette Fratelli mountains occurred close to the 3333 feet high summit of Mount Bacumalu in "dark night" VMC just over a minute later. The aircraft was destroyed by the impact and a fuel-fed fire which followed and all six occupants were killed.

The track flown following the approval of a visual approach is shown in red on the topographical chart on page 73, where the point of impact is marked with a black arrow. The track towards the CAR VOR from the north east via

¹ - [http://www.skybrary.aero/index.php/C550,_vicinity_Cagliari_Sardinia_Italy,_2004_\(CFIT_HF\)](http://www.skybrary.aero/index.php/C550,_vicinity_Cagliari_Sardinia_Italy,_2004_(CFIT_HF))

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THE 2004 CAGLIARI ACCIDENT AND AFTERWARDS (cont'd)
The accident investigation

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assumed to be part of the flight crew, although there was no evidence that he played any role in the operation of the aircraft on the accident flight.

There was no evidence of any relevant unserviceability in respect of the aircraft or ground equipment. It was noted that the approach control service for the Cagliari CTR is provided by the Italian Air Force from the military airbase at Decimomannu, located 8.5 nm north west of Cagliari airport and equipped with both Primary and Secondary radar feeds, the former with a 4 second refresh rate.

It was noted that the aircraft had not been fitted with crash protected flight recorders (FDR/CVR) or a GPWS and since the maximum authorised weight of the aircraft did not exceed 5700kg, such equipment was not required. It also considered that "the crew was not particularly familiar with the area around the destination airport" and concluded that the short notice of the requirement to undertake the flights concerned when a duty the following day had been expected would have meant that despite the applicable flight time provisions being met, "the crew (would not have had) an adequate period of rest.....before starting flight activity at night".

It was confirmed that prevailing ICAO provisions for the provision of Air Traffic Services were unambiguous in making the safety of aircraft from impact with terrain or obstacles the complete re-

LEDRO, from where the ILS procedure would have commenced, can be seen as a thin blue line

The Investigation established that the handling pilot for the flight had been the First Officer who had been occupying the left hand seat as part of supervised line training to prepare

for promotion to Captain. The aircraft commander occupying the right hand seat was also the Director of Flight Operations and Chief Training Pilot for the aircraft operator. It was also found that an additional recently-qualified pilot of Italian nationality had travelled on the three flights. Since this person appeared to have been on duty, he was

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- the lack of any ground lights in the area of the Sette Fratelli mountains would have precluded the possibility of achieving effective visual separation from the terrain because as a result the area would have appeared as a uniform “flat black colour”.
- The Cagliari APP radar display would not have provided continuity of radar returns from the aircraft.

The cause of the accident was stated as “the conduct of the flight to a significantly lower altitude than the prevailing MSA which was insufficient to maintain separation from terrain during a visual approach at night in the absence of adequate visual references”. Seven contributory factors were identified, five of which concerned the actions of the pilots, one the absence of contouring on the proprietary charts provided for the flight crew and one the absence of a TAWS on the aircraft.

Seven Safety Recommendations were made, two to ENAV and one to ENAC on 14 July 2004 and four more in the Final Report, variously addressed to ENAC, ENAV, the Italian Air Force, the Civil ANSP and EASA. One of these was a restatement of the earlier one to ENAC concerning TAWS which had not been actioned at the time of publication. 5

sponsibility of the aircraft commander unless radar control service was being provided. When compared to State requirements for night visual approaches, the Investigation concluded that “AIP Italy in force at the time of the accident would....appear to contain additional conditions (for such approaches) compared to the international provisions of ICAO Doc 4444”.

It found that the documentation extant at the time covering the circumstances under which visual approaches could be conducted was contrary to ICAO provisions, not all available in English language in the Italian AIP and ENAV requirements often required reference to documents in Italian which were “difficult to obtain” and were open to misinterpretation.

Whilst the ANSV Investigation was in progress, the parallel Judicial Investigation decided to organize a flight in an aircraft of the same type as that involved in similar flight conditions in order to determine the in flight visibility in relation to the claim by the aircraft commander to have visually acquired the airport at the point he did and to determine any relevant limitations to the radar cover feeding the displays at Cagliari APP. An ANSV Observer travelled on this flight and the Final Report of their Investigation notes that it was found that:

- visual acquisition of the airport was not possible as claimed when receiving approval for the visual approach.

The judicial aftermath

by Carmelo Starrantino and Marcello Finocchiaro, EUROCONTROL

The fact that two Italian Air Force air traffic controllers were convicted of negligence and failing to exercise a sufficient duty of care during the course of providing air traffic service has become quite widely known. However, how this came about is less well understood. What do we know about the court judgments? How could the Italian legal system reach the conclusions that it did?



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ample of how difficult it can be to sustain a 'Just Culture' which will support risk management in a safety-conscious industry that is also compatible with the wider public interest in the proper administration of justice.

The two military controllers who had been on duty at Decimomannu and who provided Cagliari APP service to civil traffic were both charged with multiple manslaughter and air disaster for contributing to the death of all 6 occupants of the accident aircraft. The Italian legal process requires that a case of this sort is determined initially in the local criminal court but this judgment may then be referred to an Appeal Court and the determination of the Appeal Court may then be referred to the Supreme Court. This is what happened in this case

The trial before the court of first instance

On 17 March 2008, the Criminal Court of Cagliari sentenced them to two years' imprisonment suspended and to pay, jointly, an interim compensation amount of € 75,000 for civil liability and court costs.

Pilot error was accepted by the Prosecutor and the Court Judge as the immediate cause of the accident. They

concluded that because the pilots had not appreciated the topography of the area surrounding Cagliari, they had erroneously considered it devoid of fixed obstacles.

In addition, the Court also found that the controllers, through their negligent conduct, had made a substantial contribution to the event. Thus the Judge upheld the Prosecutors argument that there were sufficient grounds for finding that there had been concurrent negligent action involving both the pilots and the controllers.

This negligence was qualified as general and specific:

- General in terms of the infringement of standard expectations in terms of diligence, skillfulness and prudence
- Specific in respect of breaches of operational rules, in this case involving those concerning visual approaches, the lack of separation from obstacles and misleading instructions relating to descent.

The Court concluded that the controllers had violated the rules concerning visual approaches, disagreeing with what was affirmed by the Public Prosecutor's experts who had considered that the behavior of the controllers

This article tries to explain (but not excuse) the rationale that led to the controversial findings/outcomes. It reflects the reality under the current Italian legal system and provides a classic ex-

complied fully with the provisions of ICAO Annex 11 Rules of the Air, ICAO Doc.4444 PANS-ATM and other applicable technical rules and air traffic regulations in force.

The divergence of opinion between the subject matter experts and the Judge was based on the application of specific Italian rules introduced in 1991 by the DGAC (Civil Aviation General Direction). These rules, only applicable in Italy, were enacted through domestic directives No. 41/8879 and 41/8880.¹

For years the existence of these rules was unknown to many pilots and controllers and it wasn't until 1996 that they first appeared in the Italian AIP. Their application in respect of the controllers was a very controversial aspect of the First Instance Judgement. On the one hand, the Public Prosecutor's Experts affirmed that their insertion in the AIP only made them binding on pilots. The Judge on the other hand, was of the opinion that in order for this rule to be applied only to the pilots, it had to relate to a "potestative right" on their part that put them in the position of being able to determine their applicability. Instead, however, he decided that as the controllers had the power to approve or refuse a visual approach to IFR traffic, they too were 'receivers' of the AIP rules.

According to the experts, the relationship between pilots and controllers, with reference to the compliance with technical rules, is founded on a so-called "fidefaciente" statement of the pilot, who is responsible for the consequences that follow from what he states. This view leaves it to the Regula-

tor determine the validity of statements made by pilots rather than the ANSP, because the latter has neither the tools to verify their correctness nor any power of sanction.

ATC's 'Position of Guarantee'

With reference to the crucial issue of the duty to provide separation from obstacles, the Judge affirmed that, because of the prevailing topography in the area of the accident, the controllers had to be more prudent and strictly comply with what was stated in the additional AIP Italy rules. The Judge also ruled that the controllers had to verify the ability of the pilots to address the challenges associated with a night visual approach in the presence of relevant terrain and the possibility of impact during such an approach. Furthermore, controllers were responsible for checking that the pilot was adequately trained, equipped and informed as, in the opinion of the Court, controllers had a "position of guarantee" in respect of the pilot/crew, which involved being proactive in preventing possible aircraft impact with the terrain.

The Court also took into account the nationality of the pilot in command and the Judge took the view that it was easy for the controllers to deduce that he was not aware of the surrounding obstacles. Moreover, according to the Public Prosecutor, the Cagliari APP controller had a specific duty to intervene if an aircraft appeared to be exposed to a dangerous situation, even though its pilot had placed himself in the situation due to his own intent or negligence.

In this case the controller knew that the Citation was heading to Cagliari and might overfly the high terrain of the

Sette Fratelli. It was considered that this view was supported by analysis of the telephone conversations which had taken place between Elmas TWR and Cagliari APP and also by the few traces from the APP radar display which showed that the aircraft was in the area of the Sette Fratelli mountains². In the opinion of the judge this was a very significant matter which strongly affected the position in law of the two controllers.

According to the Judge, if an intervention of the controller is appropriate in order to advise a pilot of the risk of entering prohibited airspace, then the same importance and necessity must be accepted in similar situations such as this accident scenario. That is the controller has a duty to alert a pilot to a potentially unknown (to the pilot) risk.

A further element of negligence noted by the judge was the instruction given by the Cagliari APP controllers to the crew to "...continue not below 2500 feet, further descent with Elmas Tower...". The Minimum Safe Altitude (MSA) in the Sette Fratelli area was 5700ft and in the view of the Court the instruction may have misled the pilots into believing that it was safe to descend to 2500ft in an area where the height of the surrounding mountains was over 3000 ft. In addition, in the opinion of the Judge, the descent instruction might have led the pilots to think that the 5700ft MSA was not related to the topography of the area but to the needs of air traffic management and the prevention of aircraft crossing the protected departure and arrival routes of other airports in the vicinity.

1- In effect these directives represented an additional requirement to the provisions of ICAO PANS ATM applicable to pilots of all aircraft undertaking the carriage of passengers or goods for the purposes of Public Transport. The first one (41/8879) specifically prohibited the use of visual approaches at night for general aviation traffic but not for the commercial air transport, category of which the accident flight was an example. The second one (41/8880) then set six pre-conditions to be satisfied by flights permitted to make a night visual approach as follows including that an alternative instrument approach procedure should be unavailable.

2- One of them admitted to have noticed on the Monti Codi radar monitor that the Citation was en route towards Cagliari crossing the "Sette Fratelli" zone. The controller assessed that the contact was 'weak' and not usable for the provision of radar assistance – which in any case was unnecessary for the ongoing (visual approach) procedure. However, when it was clear that the accident had occurred and it was necessary to locate the wreckage, he was able to use the information to inform the search and rescue activities.

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The judicial aftermath

So, according to this Court, there had been a violation of the controllers' duties of prudence, diligence and skilfulness. Furthermore, because they had failed to provide a timely alert to the pilot after a misleading descent instruction, they had acted in a grossly negligent manner.

The court of appeal

On 18 March 2010, the Cagliari Court of Appeal essentially upheld the judgment of the Lower Court, whilst also finding further evidence of negligence.

The Appeal Judges affirmed that the controllers were aware of the 'dangerous' position of the accident aircraft thanks to the information they had received from Rome ACC, which had controlled the first part of the flight. They then did not provide essential information on the topography of the terrain, thus violating one of the duties set down in the Italian DGAC Directive No. 41/8880.

The Appeal Judges surmised that the controllers' failure to provide useful information for a safe and efficient conduct of the flight was also a violation of ICAO Annex 11 paragraph 2.2 (d). They also found that the defendants had violated the technical rules of air traffic control because the manner of the transfer of control prior to landing had infringed the Italian Air Force "Ordine di Servizio" No. 102, which stated that the transfer of responsibility from APP to TWR in the case of an aircraft approaching to land must take place when the aircraft was in the proximity of the airport. In this case, the transfer of the control took place when the aircraft was 26 nm from the runway.

According to the Judges, the transfer of control to Elmas TWR should have taken place when the aircraft was between 5 and 10 nm on final approach. They

cited the instance when during the night of 23 February (the day before the accident) the same aircraft had landed at Cagliari Elmas to pick up the medical team involved in the heart transplantation, had been cleared for a visual approach procedure only when it was 10 nm away from the airport, notwithstanding that on this occasion it came from the North and so was overflying an area without obstacles. Furthermore, before the transfer to Elmas TWR, the APP controllers had informed the pilot about its position, (as seen on radar), about 7 miles far from the runway. This contrasted with the accident flight only a few hours later when no such position information was provided.

The supreme court of cassation

The judicial proceedings came to an end with the decision of the Supreme Court of Cassation, which delivered its judgment on 10 December 2010 and upheld the previous two judgments.

Unlike the previous judgements, the verdict of the Supreme Court did not mention the DGAC Directive No. 41/8880, but focused instead on establishing the nature of the ATC role with reference to the separation between the aircraft and terrain or obstacles. The Judges affirmed that controllers have a 'policing' function, whereby they are managers and administrators of pilots, on whom they impose discipline, through clearances, which are administrative instructions, in order to ensure the safe, orderly and expeditious flow of air traffic.

'The Position of Guarantor' in the protection of 'Goods'

In the opinion of the Court, regardless of any technical ATC rules, the duty of controllers to separate the aircraft from terrain and obstacles and the duty to do everything possible to ensure a safe

flight, is based on their 'guarantee position' towards aircraft occupants.

According to Italian statute law, there are some very important 'goods' or interests (in this case human life) which, by their nature, require an enhanced protection without which they could not continue to exist. The principle applies to situations where the legal system – given the incapacity of the owners of the 'goods' to ensure complete protection – deems it necessary to determine a threshold of advanced protection, establishing a 'guarantee position' in the hands of third parties who, through proactive behaviours, can support the enhance protection of these fundamental 'goods'.

Given the existence of this principle, the Court considered that the controllers – within their competences aimed mainly at managing the regular flow of air traffic departing, landing and en route – must act proactively to try to eliminate or at least reduce the risk of an aircraft accident once they notice that an aircraft is in a 'dangerous' position.

Pursuant to Article 40 (par.2) of the Italian Criminal Code which states: "Not to prevent an event that is a legal obligation to prevent is equivalent to causing it", it was considered that it was irrelevant that ICAO Annex 11 paragraph 2.2 does not include prevention of collision of obstacles as a function of air traffic control in the circumstances which prevailed in the accident. The judges reasoned that the controller, as well as the pilot, has to be considered as a 'guarantor' in order to ensure the safety of navigation and in general in order to avoid aviation disasters.

The determination of Negligence

The Supreme Court also addressed some of the specific 'negligence' aspects related to the case. The Judges

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took the view that the controllers' conduct was negligent, incompetent and careless because they did not promptly appreciate the abnormality and danger of the pilot's route and underestimated the existence of conditions which could be thought of as non-standard and improper for the safe conduct of aircraft navigation. They considered that the element which characterized the specific culpability of the controllers concerned a violation of the provisions of ICAO Doc 4444, PANS ATM, paragraph 4.3.2.1.1 where it is stated that "the control of an arriving aircraft shall be transferred from the unit providing approach control service to the unit providing aerodrome control service when the aircraft: a) is in the vicinity of the aerodrome...". So, in the opinion of the Supreme Court, the visual approach clearance has to be provided only when the aircraft is in the proximity of the aerodrome.³

ATC Authority and 'Clearance'

Another important aspect examined in the Supreme Court's judgment concerned the nature of a 'clearance'. The Court tried to associate the ATC 'clearance' for a night visual approach with the normal 'administrative' qualification system existing in Italy. According to this principle, the power to grant a permission (to proceed) presupposes that the person who issues the permission must verify that the necessary (safety) conditions are in place. In the absence of such conditions, the person should not issue the 'clearance'. A statement from a pilot confirming the existence of all the necessary conditions should not be the basis for issuing of a clearance which is dependent upon them being satisfied because a pilot's perspective might not always

be sufficient to meet every legal requirement.

In terms of this general principle, the issuing of a clearance by a controller must therefore always be preceded by a check carried out by the same person and this is demonstrated by the fact that a such a check is also necessary in case of "silence/assent" or "fidefaciente statement" when, by the deadline for its release, the competent authority can always require the receiver (the pilot) to clarify or to produce additional documents, and in their absence the releasing body (controller) should deny the clearance request.

On the contrary, the lawyers acting for the controllers argued that it is not practicable to place the current air traffic controller clearance responsibilities within the standard 'administrative' framework. The authorisation implicit in a clearance should not be considered as an 'administrative' act that can only produce effects if the recipient is willing to comply. Rather, they argued that an ATC 'clearance' doesn't have any coercive power to impose specific behaviour on the recipient. The pilot in command is in reality not bound to unthinkingly comply with a clearance but is able to deviate from it in the interests of safety. So therefore a 'clearance' cannot be considered as an 'administrative' act but as an instruction in the wider sense.

The Supreme Court also dealt with a matter not covered by ICAO concerning the presumed duty of the controller to issue clearances not only for the requirements of safety, but also in response to pilot requests to expedite traffic (e.g. for short-cuts, direct routings) and flight efficiency (fuel, time)

reasons. Notwithstanding that ICAO Annex 11 paragraph 2.2 obliges ATC to maintain a safe, orderly and expeditious air traffic flow, the Court stressed that when ATC provides a clearance it should not be influenced by any requests from a pilot to reduce the duration of the flight or the fuel consumption because these are private economic interests of aircraft operator. The decision-making process of the controller must be guided by and prioritise the primary requirement to preserve flight safety.

The Court opined that since a clearance does not have mandatory status in all circumstances, it can and should be followed only if it is safe to do so. The objective of a clearance can be evaluated only in association with safety considerations and never autonomously. On that basis, the Judges concluded that controllers must comply with their professional duty concerning the obligation to ensure both the regular flow of air traffic and the safe operation of aircraft.

Conclusion

In Italy at least, there is a need for the judiciary and aviation professionals to be more aware of each others perspectives on criminal prosecution and operational issues connected with ATM. This case exemplifies how international aviation provisions are subject to the interpretation of Judges, given that the administration of justice is a prerogative of each State acting alone. It is nowadays widely acknowledged that an improved dialogue and a mutual understanding between the Judiciary and specialist professionals is the only way to make progress and move forward in terms of Just Culture development. **S**

3- After the Court of Appeal judgement the Italian Air Force suspended the visual approach procedure at domestic airports and ENAV did the same after the Supreme Court judgement. Nowadays, the Air Force permits the visual approach procedure only for military aircraft. On the civil side, ENAC has drafted a new procedure but so far it is not in effect.

THE 2004 CAGLIARI ACCIDENT AND AFTERWARDS (cont'd)

Air cops and mountain tops

by **Alberto Iovino**

In my opinion, the controllers acted correctly. But my opinion is not the point here. The point here is what happened in Court afterwards.

At all stages in the legal process – trial, intermediate appellate and last resort – the various Courts recognised the primary responsibility of the flight crew, including their statement that they had visual contact with the airport from a position and in environmental conditions which, as it was demonstrated, did not allow for it. Nevertheless, they also unanimously blamed the two controllers for having contributed to the accident.

Conviction was based on two main lines of reasoning, respectively addressing specific and generic guilt.

On the one hand, the magistrates performed their own analysis of the operational rules and procedures the controllers were supposed to apply and, contrary to the opinion of expert witnesses who included a pilot and a controller, came to the conclusion that there had been significant error and negligence.

On the other hand, they assigned to air traffic control the role of policing air navigation. This may not be an easy con-

cept to understand, and it may be even harder for people familiar with different legal cultures. In simple terms it means that, besides and beyond specific duties and procedures, controllers are deemed to hold a general responsibility to guarantee the safety of those who fly.

The first line of reasoning is obviously difficult for someone who is familiar with aeronautical matters to agree with. Whilst our job, as any other human activity, is not one hundred percent free of 'grey areas', none of us would doubt that the objectives of the air traffic control service as prescribed in Annex 11 do not include prevention of collision with terrain, or that a professional judgment is required to determine whether a radar is fit for operational use and that if it is not, whilst intermittent information would might aid search and rescue, it could not be employed in service provision. You read the meaning which was attributed by the Courts to words and actions and you know that it is unreal and that no pilot would understand it that way either – OK, never say never, but you can see that mental processes applied to words and actions came from a different world, when the world in which the accident occurred should be taken properly into account.

Still, and even though culture is always a factor, this appears in the first place as an individual issue. By that I mean that a different judge might have followed a different approach and may have taken more notice of

testimony, because, although subject matter experts know less about law than judges, they are far better able to understand and explain what happened in its proper context. In a different cultural environment, many more judges might have been of that different opinion but nevertheless, in the one we currently have, it can still be a one-to-one match in court and it is up to the defence lawyers to play it at their best.

REF

The second way of reasoning, even though individuals are always a factor, is broadly cultural and one against which there is in the end no other real defence but a cultural change, possibly induced by legislative action. In a scenario as intrinsically permeated with hindsight as that of criminal justice, if you are held responsible as the last line of defence when something goes wrong, it is automatically your fault just because it did and all that is left to discuss is the extent to which you are responsible and whether you acted with intent or otherwise.



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is currently head of ATS Operational Procedures Unit of ENAV Italy. Formerly an airline employee for 8 years, he became an ATCO in 1997, working as tower, approach and area controller.

This is the picture we are looking at. In my opinion, the arguments and conclusions of the Courts are all in all wrong. But my opinion is not the point here. The point here is that the Court evaluated facts from another perspective.

Since the final verdict in this case was handed down, action has been taken with the aim of modifying both the national technical regulations which adopt the ICAO Annexes, and the Air Navigation Code. Taking part in these activities, I was more than once faced with the view that the risk of prosecution was in the end just a professional risk. Controllers, it was said, are well paid to perform challenging tasks and should accept the possibility of unwanted

sharing of ideas and experiences, often proactively, sometimes following accidents and their casualties. Air navigation is a complex system where roles are defined and duties detailed and it is in the unquestionable public interest that such roles and duties are adhered to. And it works.

When a controller sits at his working position, he must be confident that what he is asked to do is what he was taught. Where criminal verdicts say this is not (entirely) true, there is a problem for the system, even before than for individuals. Other duties are added, to perform which no standard procedures are made available, so that each controller is eventually required to con-

The law is the law and nobody should think that one can be dispensed with it by simply following technical professional rules. Nevertheless, there is a general interest in the integrity of all complex and highly specialised systems like air navigation, which has to be recognised and pursued through the law, rather than against it. Evolving a shared awareness of this necessity is a step that many advanced societies still seem unwisely hesitant to take.

This is a sad story. Six people died, people with families and children, a well known cardiac surgeon and a promising junior in that field. Incidentally, the heart was recovered,

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ed consequences for them arising from their actions, thus accepting equality before the law. Arguments against that thinking are often perceived as a quest for licence to kill. I tend to see it a different way.

Controllers are hired through selective processes. They are then subject to extensive ab initio and recurrent training on the operational rules and procedures which they are required to strictly comply with. Such rules and procedures have been developed worldwide over decades and are continuously revised and refined through the mu-

tinuously assess what his responsibilities are and how he should fulfil them. I believe this constitutes a serious safety issue, whose public relevance goes far beyond the otherwise legitimate concern of single controllers about potential judicial outcomes. Neither should the solution be to use the verdicts of the Criminal Courts as a reference for developing operational procedures, since this would put each country out of the global aeronautical community and the common standards and practice which such verdicts often widely contradict and ultimately, bring that community to an end.

unusable, among the debris spread over an area of almost seventy thousand square meters; the patient, a 52 year old man, had to wait a few more weeks for the availability of another one. Though this transplant was initially successful, he did not make it. Sad stories are part of life and it is no use saying anything about the pain of those who suffer them. Whilst other sad stories are bound to be told, we must try however we can to ensure that the very same sad story does not have to be told again, to make the telling a little, just a little, less sad. 5



If it had happened in your country, what would the judgment have been?

by **Marcello Scala**

The judgement in the criminal trial did not follow expert advice provided to the Court which completely rejected any controller responsibility but found instead that the controllers were culpable. As a consequence, there were outcomes, direct and unforeseen, in the aviation domain.



Marcello joined the Air Force in 1989 as an officer. Here in he got the rating-specialization of ADI-TWR, APS-RAD-TCL, APS-RAD- PAR, ACS-RAD, OJT and SPV. He left in 2005 the Air Force with the rank of major and was hired in ENAV where he has been working as ACS-RAD-TCL, ACS-RAD and OJT. In 2002 he graduated in law. Since 2009 he has been collaborating with ANACNA and from 2012 he is the director of the Legal Affairs Committee.

The Judges, after an analysis of the facts presented, found that the conduct of the controllers acting as agents for the provision of air safety amounted to imprudence, negligence, malpractice, non-compliance with the rules on common experience and those regulating specific matters.

The Court sentenced the controllers to two years imprisonment and also found them liable for damages and compensation, although these were paid by the ANSP, the Italian Air Force, as their employer.

The ATS given by Cagliari APP had been a non-radar approach control service (procedural approach control). At the time of the accident the personnel on duty were one radar controller, responsible for the radar room, one non-radar approach controller and one air traffic control assistant.

Even though the Judges accepted that the accident was largely due to the pilots' loss of situational awareness during descent, the Court considered that the part played by the air traffic controllers was equally fundamental.

I will now discuss the judicial reasoning which led to the convictions. In respect of the controller as a professional and taking precedent into account, the Courts who heard the case – and the Supreme Court in confirming the judgement – took the view that a controller is responsible not only for the avoidance of collisions between aircraft as described in Doc 4444, but must also actively seek to prevent any type of aircraft accident. In Italy, a controller is seen as an agent with a general responsibility to act as a guarantor of flight safety, clearly a role which greatly exceeds that of a controller's professional responsibility.

Effectively, the judgement confirmed the legal position of a controller as that of policing air navigation role with responsibility for multiple air space users – pilots. He has to give "orders" based on this responsibility whilst taking into consideration also a multitude of other variables that don't lie within his area of professional responsibility.

The concept of the controller as an air navigation policeman has to be understood with the following connotations:

- all that a controller usually does during his shift on duty should be aimed at achieving the primary objective of the air navigation safety;
- his function is to protect public interests.

In law, the Court had considered the controllers' to be:

- (1) careless and not in compliance with expected competence in giving the night visual approach clearance so far from the landing runway
- (2) responsible for failing to verify the awareness of the pilots of the surrounding terrain and not communicating, in any way, useful information about it;
- (3) responsible for having introduced ambiguity when issuing the descent restriction of 2500 feet¹.

Taking into consideration the technical rules, especially the international ones, the Court considered that the Chicago Convention under which ICAO had been established did not intend to limit the full and exclusive sovereignty of each State, but to facilitate the highest possible level of uniformity between the contracting States.

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Specifically, the Court considered that the Convention did not lay down any rule limiting the extent of responsibilities of controllers and neither was it competent to modify national regulations. It defined only the international obligation for every contracting State to conform to the standard regulations and notify the ICAO of differences.

However, the Judges also stated that the determination of the general function of guarantee is based on not only legal grounds, but that these were also supported by ICAO Annex 11 where it says that the duty of ATS is to provide advice and information to facilitate a safe and efficient flight². In my opinion, this reasoning amounts to a re-codification of the Annex with an extended meaning so that the Court changed, and stretched, the real logic of the rule³.

Referring to the responsibility for the disaster the Court stated that the controllers could have prevented the disaster if they have provided the appropriate information to the pilots⁴. In the judgement it was stated that, following the precedent set in earlier cases, the circumstances of the accident led the Judges to be confident that different conduct of the controllers could, with a high level of probability, have prevented its occurrence.

Although the professional advisers to the Prosecutor didn't identify any fault on the part of the controllers in terms of their conduct and considered that it was in line with the applicable procedures, the aforementioned judgment assumption was, in accordance with universal legal process⁵ the entire prerogative of the Judge.

As a result of this judgement, there has been a loss of understanding as to what conduct is expected from controllers in such situations. It now appears that professional people not only have to adhere with their professional rules but must also demonstrate a degree of proactive intervention in the interests of safety which conform to the concept of a general guarantee.

The operational consequences of the judgement were as follows:

- Just after the publication of the reasons of the judgment, the Italian Air Force suspended clearances for visual approach until such time as the Regulator for civilian air traffic establishes revised procedures. The reasoning was that although the conduct of the controllers was in line with the prevailing procedures, the conviction of two of them indicated that the procedures they were working to were wrong.

- After a while ENAV⁶ also suspended the issue of clearance for visual approaches
- Although a draft revision is now ready, the application of the visual approach is still suspended;
- The aviation domain in Italy suffered a loss of confidence in the legal system.

However, the problem is not, obviously, just one of the ATC obligations which must be accepted when issuing clearance for visual approaches, but with the wider implications. What is the correct conduct that a controller has to comply with in order to be considered without any fault? If the judgement in this case continues to be upheld this is an important question for the determination and compliance with procedures.

As understood by the judgement, a controller is given a general responsibility for the safety of an aircraft in flight, acting as a form of guarantor. Respecting this model, where does the controller find how to be compliant with the conduct that, "ex post", could be expected?

What is, in a legal system based along these lines, the certainty of the professional rule?

The question needs to be asked: is a professional domain that follows rules that do not guarantee protection from prosecution should an accident occur better than one in which this uncertainty doesn't exist? I don't think that uncertainty supports any type of national interest! **S**

1- This restriction was prescribed by Air Force procedures in the event of heavy operational traffic in the ATZ.

2- 2.2 (d) The objective of air traffic services shall be to provide advice and information useful for the safe and efficient conduct of flights.

3- The general function of guarantee and its evaluation: the objective is to establish if what happened was caused by the agent due to not compliance with duty of diligence, prudence and expertise; an evaluation done ex post by the Court. Because of this line of reasoning there is a loss of certainty in the professional rules; something unacceptable for all high skill professional jobs.

4- Crime of omission (cp 401I).

5- The judge, under Italian legislation, is the Expert of the Experts – peritus peritorum – which confirms that he determines his judgement after considering the opinions of appointed subject experts, but that these are provided only as a support to him.

6- The Italian Civil ANSP.