APPEAL PROCEEDINGS FOR THE AIRCRAFT ACCIDENT IN CAGLIARI (FEB 2004)

The confirmation of the verdict in the first degree of justice: commentary regarding the motivations

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The motivations provided by the Court were published in a short record time and showed several errors, contradictions and assumptions without any reference with the relevant ATM Regulatory framework. The main cause for errors, contradictions and wrong assumptions that came up is likely to depend upon the very limited time taken to consolidate the motivations themselves by the Court experts.
The major considerations dealing with both ATCOs assumed responsibilities and the Court poor specialist knowledge are summarized in the following topics:

1. failure to provide the pilot with the necessary information regarding the orography of the territory
2. provision of ambiguous instructions/clearances to continue the descent not below 2500 ft.
3. usability of radar signals
4. generic blame: responsibility of the Air Traffic Controller
5. limited knowledge of national and international aviation regulations by the Court

1. FAILURE TO PROVIDE THE PILOT WITH THE NECESSARY INFORMATION REGARDING THE OROGRAPHY OF THE TERRITORY

With regards to the formal aspect and in accordance with the law such attribution, firstly, is based on an erroneous assumption, which was repeated many times in the motivations of the first degree and also from the appellate judge: that the **Directive 41/8880/AF.O of the DGAC (*Civil Aviation Authority - CAA),* containing additional prescriptions to the Visual Approach** procedure**,** was an order "*erga omnes"* and not – as in fact it was – a direct note, for each specific area of competence, to various aviation parts. The so-called additional conditions relevant to the night-time Visual approach issued by DGAC, and in force at the time of the event, were in fact made known to the users (pilots) by means of a **note** addressed to all Airport local authorities (DD.AA.CC.) and, for an appropriate diffusion, to all the airspace users and regularly published on AIP-Italy not explicitly citing the text but making reference to the number of the regulation, only.

This serious misunderstanding by the judges, probably due to the lack of knowledge of aeronautical language and literature regarding the subject, induced the Court to deem that "*there were no recognisable difficulties of knowledge for the air traffic control personnel, which was institutionally tied to the same agency in charge of the publication in AIP-Italy and that, moreover, had easy access to those regulations which were to be applicable before they were known".*

In reality, the contents of the mentioned **Directive 41/8880/AF.O,** both for the acquisition methods of orographical information on behalf of the pilots (slides, briefings, etc.) and for the publication methods of the regulations contained in the same ("*they must be included in the operational manual of the company, amongst the flight operational regulations, and be dealt with when recurring training is being delivered"*) allow the aviation people understand that those rules are intended exclusively for flight crews and have no reason to be extended to the air traffic controllers since their content cannot directly be

managed nor checked by the latter. This is really true that a NOTAM regarding the content (as erroneously considered by the DGAC) has never been issued up to now and today, more than 6 years from the accident, there is no longer trace in AIP about this directive (not even through any indirect reference).

In addition, another glaring repeated oversight by the Court - the military air traffic controllers did not have nor they have a dependant/binding relationship with the Agency in charge of publishing the AIP (ENAV - Società Nazionale di Assistenza al Volo).

It is known to all the aviation operators that the Supervisory Agency for military ATS Provider is the Italian Air Force itself. Even though it coordinates with ENAC (Ente Nazionale Aviazione Civile - formerly named DGAC) to maintain operational standard procedures, the Italian Air force autonomously issues provisions to its employees (see published ATS Operational Manual).
As proof of what hereby is affirmed, recently, in light of the unsupported verdict of the Appellate Court of Cagliari, SMAM (the Italian Air Force Head Quarter) issued a directive that prohibites the issue of Visual Approach clearances by the ATC in Cagliari area, while waiting for the final judgement of the Supreme Court (Corte di Cassazione).

In light of the above matter, it appears to be extremely serious that the appellate judges have apodictically sustained even that *"…omissis…the prosecuted controllers had instead completely omitted such evaluations and, as they in fact had admitted,* ***they consciously refused to carry them out****.,….omissis…*" almost intending [the judges] to configure an intentionally negligent behaviour of the two ATCOs in service.
Analysing **in depth**, it is necessary to have a clear picture of the tasks to be performed by the air traffic controllers (military controllers in the case at hand) in virtue of the precise tasks assigned to them by the relevant national and international regulations. A summary of the same is easily found in the *Air Traffic Service Manual* published by the Italian Air Force, where the objectives of Air Traffic Services and the tasks assigned to Air Traffic Controllers are clearly set out and perfectly in line with ICAO (International Civil Aviation Organization) Annex 11 and DOC 4444.
In reality, the contents of the **Directive 41/8880/AF.O** were binding other aviation people [the flight crew] but not the military air traffic controllers nor the Air Force, acting as Regulator and Service Provider for the airports within its jurisdiction.

Therefore, it is not understood how such a directive can make the controllers responsible, as long as the Court argued, *"...to punctually verify the* ***capability of the pilot*** *to not only to perform a generic visual approach procedure but to* ***reach that specific destination airport safely****"*

The national and international technical regulations and the legislative provisions that have been in place from post war up to now (including the Navigation Act - aimed at establishing the tasks and responsibilities of the bodies which have been assigned for supplying ATS to civil air traffic in Italy) exclude such a possibility. With evidence in hand, such tasks pertain to specific offices to which regulatory and supervision functions are assigned for the Civil Aviation activities as a whole.

In this framework, it is not possible to understand what kind of power and tools the ATCo has in order to make " …omissis… *the substantial difference existing between a pilot with very good landing skills at Cagliari Elmas and a pilot whose experience is unknown" come up.*
If it was mandatory for controllers - on the basis of specific regulations which are currently nonexistent in the international aeronautic context - to verify the capability, ability and knowledge of a pilot, presumably a novice, through a sort of interrogation conducted by means of the radiotelephony, this extravagant

practice sustained by the judges should, in any case, succumb to specific essential general conditions, such as:

- professional competence of air traffic controllers comparable to the ENAC flight inspectors and possession of the necessary aeronautical licenses;
- instruments and information necessary to state that the pilots have the proper skills to perform the requested operations and that the airplanes being used are properly certified, as well;
- availability of information about the pilot in command of the aircraft (Italian or foreign, it does not make much of a difference) and in relation to his flying experience according to the specific sector of Air Traffic Service being provided.

It's obvious that the reasoning of the Court in this regard is groundless, in light of the diversified authority that the implementing and regulatory laws assign to the Civil Aviation Authority (DGAC, ENAC, Air Force) and the Air Traffic Service Provider (AAAVTAG, ENAV, Air Force). Specifically, the ATCO operational verification to issue the Visual Approach clearance was compulsory and was carried out on the basis of the technical regulations all the controllers must comply with, pursuant to ICAO Doc 4444 and the Air Force Air Traffic Services Operational Manual (that faithfully reiterates them) and this doesn't have nothing to deal with the non-existent regulation that is far outside the ATC scopes, which the Courts have sought to rely on.

It appears that the Court expected a controller, from his "cosy" position on land, to verify that a pilot had all the required certifications before clearing him to start flying any type of procedure and if such certifications were not available, the controller had to inquiry the Civil Aviation Authority to get missing bits of information before he approved the pilot flying any procedures.

In this context, the Court makes reference to authorisations relevant to the day-to-day administrative activities that, for the times and methods of implementation, have nothing to do with the air traffic controllers tasks, featured by immediate reaction times. However - aside from his functional incompetence on the topic - the controller in this case is considered as any office bureaucrat that has a great amount of time before granting an authorisation/instruction and a backup organisation that allows him to verify the paperwork and, hence, certify. The judges are led to believe that such a system perhaps exists in our country, in the scope of Civil Aviation, that make cross checks possible between different professions, differently trained and skilled, governed by different regulations, in order to allow a part to be able to carry out *tout court* verifications regarding the skills of another part, without cognitive instruments at his disposal.

If it was true, a position of unlimited responsibility would arise for controllers with prejudice of the golden rule saying that **the allocation of responsibility within complex organisations must show correspondence between powers and tasks.** *As it is in fact known, the obligation of warranty is a legal obligation to prevent the event (as ratified by the article 40 cpv. of the Italian Penal ACT) which requires a juridical power: it cannot derive, as desired, from the incriminating regulation on the offence of improper omission,* ***sic et simpliciter***, but it requires a previous extra-penal regulation that regulates the powers of the guarantor, in detail and exhaustively. And it is scarcely possible to identify a specific power for the controllers to intervene on the basis of a directive not addressed to them and which content - as other parts, experts, witnesses and the Air Force themselves acclaimed - they didn't know.

However, the Court took it further, inexplicably not recognising (apart from the possible knowledge of the directive) what the public attorney noted and, specifically:

- If it was the DGAC willing to make the content of the directive 41/8880 public, the provisions contained in the same directive would have been communicated to ENAV and the Italian Air Force, that is to say, to the institutional bodies responsible for the Air Traffic Control service

provision;
- that the DGAC should have, consequently, notified such a difference to the ICAO, according to the art. 37 and 38 of the Chicago Convention;
- that the note in question was in any case surpassed, since January 1997, by the note from the DGAC no. 41/231000/M3, as well as by the entry in force of the European technical regulations JAR-OPS, which entirely re-ruled the subject, hence, every Italian limitation for night-time Visual approach would have been no longer valid and – as a confirmation of the aforementioned - in July 2004 the erroneous recall of the protocol number of the note, at that time referenced in the AIP Italy, was withdrawn.

2. HAVING PROVIDED AMBIGUOUS INSTRUCTIONS FOR AUTHORISATION TO CONTINUE DESCENT NOT BELOW 2500 FT.

According to the Court "*a dangerous situation was generated by the controllers due to the ambiguous and deceptive information regarding the minimum altitude of 2500 feet given before the crossing of the mountainous area*".. Moreover "*the significant distance from the airport when the CIT 124 was instructed not to descend under 2500 feet until further notice by Elmas Control Tower, in addition to the fact that the limitation of altitude was imposed by a non public functional regulation for the management of the procedures and for intra-coordination purposes between Cagliari Approach Unit and Elmas Control Tower - that certainly was not known by the pilot - rendered the instructions objectively ambiguous and deceptive*".
In regards to the above, it is necessary to point out the following: it is true that the responsibility for the control of an aircraft during the approach phase for landing must be transferred from Approach Unit to the Control Tower when the aircraft is in the vicinity of the airport, but is also true that the distance of 26 nautical miles from the area cannot be considered excessive in the operational practice in relation to the speed of that aircraft given that – depending on its speed during the approach phase – it would enter the airspace under the jurisdiction of the Control Tower in a short time frame.

Furthermore - as pointed out by the defence lawyer - the transfer of control from the transferring unit (Approach Unit) to the accepting unit (Control Tower) occurred after the pilot had twice reported that the airport was in sight, therefore, he was handed over to the competence of the Control Tower. The transferring unit only told the pilot the altitude above which, while approaching Elmas, the aircraft would not have interfered with the air traffic that might be existing within the ATZ. It resulted as being perfectly in line with the provisions of the international regulations acknowledged by national regulations where, moreover, it is prescribed that the transfer of the communications must properly occur in order to allow TWR to supply also all the essential pertinent air traffic information (ref DOC 4444, para 4.3.2.1.2).

Therefore, it is not understood how the Court, in this regard, could sustain the analogy between the said situation and what "*completely analogous to that of the last subsection of paragraph 9.1.1.2 of DOC 4444 published in AIP Italy 1-47. According to the mentioned provision, when the pilot reports to have lost his visual reference with the ground during a Visual approach procedure, the controller is responsible to re-establish the separations compatible with the sector minima. In the case under scrutiny, what the pilot said revealed his total unawareness of the mountains against which the aircraft could have crashed while flying at the indicated and acknowledged quota* ".
In this respect, it does not appear credibly sustainable that "*proof has been acquired*" that the pilot expressed any difficulty in continuing navigation and, in this context, had declared to have lost his visual reference, given that the pilot when in contact with the Control Tower, repeated he was proceeding visually and had not been cleared to descend below 2500 ft.

The absence of pilot's perplexity in presence of the instructions, in line with the technical regulations in force, should have represented a sort of "red flag" for the controller. It appears to be an extravagant assumption. Should this statement become a general criterion to be followed, controllers should be alarmed any time pilots do not manifest perplexity, in relation to an instruction given by the ATC, and to consider this "*type of silence*" as ignorance about the procedures and the environment.
In reality, the scene was absolutely calm, and it appears unthinkable that a controller would have to intervene providing detailed information regarding the orography (also unavailable) or regarding the sector minima, already known to the pilot given that he already has the navigation maps on board.

It is not true that the pilot did not know the area he wanted to overfly after the Visual approach had been approved because the pilot had the means to plan, from Ciampino, a direct route to Ledro then Cagliari – and this statements opposes on what stated by the Court.

3. USABILITY OF RADAR SIGNALS

The Air Traffic Controllers were accused of not having properly used the radar signals - although they were not usable to supply assistance as was certified and recognised in two degrees of justice.
Just the sole fact of the controller "*had a look*" at the radar scope, when it represented the aircraft overflying the area of Sette Fratelli as referred by phone in a coordination between the controllers, makes the Court believe that the delicate and complex radar equipment, whose function is strictly connected to the safe management of air traffic, was usable.
The Court maintained – incomprehensibly for the technical experts of the Public Prosecutor and for any aviation operator - that the sporadic radar pulses (remote data from Monte Codi) "*could have, in any case, contributed to give more indications to the controllers that, far from having covered the screen with a newspaper (as, according to the statements of the consultant mr. Fragomeni, they must have done), must have used this information to integrate, somehow, what already in their possession*".

On the basis of what technical rule can it be affirmed that the controllers, having the certainty (assumed from a few pulses from the radar) that the aircraft was flying over the area of Sette Fratelli, should have communicated to the pilots, which had not reported any problems, an alarm regarding the descent to an altitude below the level of the mountains in the area, is not known.
The declarations of the air traffic control expert, mr. Fragomeni - cheated by the Court for having represented in a realistic manner how the observations from an unreliable sensor should not be used - is perfectly correspondent to the usability of the system according to the provisions of the national and international regulations that are taught to the controllers right from the Training Centres.

Radar systems, just like any other equipment essential for public safety, must be used in ATC only after being tested, approved and subject to periodical checks performed by duly authorised personnel/equipments. **To believe that a dangerous and less-than-perfect use is possible**, as the Court appears to sustain, **finds no correspondence in the modus operandi on a worldwide level**.
Also because the "*certainties*" apparently deriving from the approximate position from a "*glance"* at a couple of radar signals (over Sette Fratelli) were made known by a controller merely for information purposes to a third part (Rome ACC) and not to the user of the service (pilot), the latter situation being absolutely forbidden by the technical regulations in force.
And the attribution of fault profiles casually connected to the misconduct carried out, consistent with not supplying the pilot with information regarding his position deduced only from two radar pulses (in presence of published non-operative state of the radar) can be categorically excluded in virtue of the counterfactual criterion. Substituting, in fact, the controller's behaviour with the one deemed necessary by the Court, the controller should have supplied the mentioned information. Nevertheless, if the

airplane position shouldn't have been resulting coherent (due to misalignment of the radar map or to other technical reasons) to the actual position with respect to the mountains and the aircraft had crashed into the mountains, **in this case the controller's conduct, not complying with the national and international regulations on Visual Approach and in violation of the technical regulations in use by the radar, would have been negligent and punishable.**
Lastly, we underline that in relation to the alleged non-disclosure of information, that has been sustained more than once by the defence lawyers: "*the controller ignored that the Cessna was headed straight for Sette Fratelli, expecting that the pilot, as it may sometimes happen, if he had a mountain in front of him, he wouldn't necessarily have passed above it, given that he could also go around it, even because the pilot's action could not have been assumed from the radar that didn't show the orography for sure".*

4. GENERIC BLAME: RESPONSABILITY OF THE AIR TRAFFIC CONTROLLER POSITION GUARANTEED BY THE ATC

The Court underlined, more than once, the alleged generic blame of the controllers which would be founded on an extended function or responsibility, for all flight activities, given to them to refuse the requests made by the pilot in lack of the necessary verification relevant to the knowledge of the pilot (in the case at hand the orography of the area) and his skills.
In the above scenario, which was improperly compared to the accident in Cagliari in 1979 (in part recognised by the same judges) it is understood that in any case the "air traffic controller", as the only person responsible for the safety has - aside from the operational manuals and technical provisions which regulate the use of the delicate equipment (such as the radar) - an unconditional obligation of intervention in situations of danger perceived on the basis of a sort of *intuitus personae.* Specifically, it is not understood which instrument the controller would have used to reveal a situation of danger:

- additional conditions to the Visual Approach Standards that he did not have to follow nor to know?
- unserviceable radar to provide the pilot with assistance and in any case not available to separate the aircrafts from the obstacles except in the case of radar vectoring?
- intuition about the difficulties of the pilot (never declared) in continuing with his own navigation by visual means chosen by the same pilot?

Therefore, the calm behaviour and lack of signs of uncertainty in regards to the instructions received should have been also understood by the air traffic controller - in the eyes of the Court - as a sign of distress.
The posthumous reconstruction through regulations shaped on a model agent, the only person fully responsible for the safety of the flights, equipped almost with divination skills, bring the magistrate to erroneous conclusions.
The real agent whose conduct is under accusation is "**the air traffic controller**" and not the "**flight controller**" as generically understood.
It is an essential distinction to be made, in order to distinguish the different functions: not approximately connected to any situation of danger, even not recognised in flight, but to the air traffic management. The difference is so important that the air traffic controller is responsible to separate an aircraft from obstacles on ground only when the he is providing radar vectoring functions.

But the load of accusations as built by the Public Prosecutor in the two degrees of justice, and integrally agreed by the preliminary hearing judge firstly and subsequently by the Appellate Court, is fallacious given that it is the outcome of a serious misunderstanding regarding the professional identification of the accused Air Traffic Controllers. This evidence comes up when the Judging Board, in supporting the obligation that arises in the controllers' hands from their position of responsibility and, therefore, from

the fact that the law attributes to specific parts the role of guarantors of specific interests that cannot be protected by their superiors, explicitly refers to the consolidated Italian system of justice.

Specifically, the Court - in recalling the judgements regarding the subject - cites not only the case for the air accident of Capoterra on 14th September 1979 (in itself not very befitting as pointed out above) but, incredibly, explicitly recalls the decision of the Supreme Court regarding the accident at the airport of Verona Villafranca on 13th December 1995, when under accusation was the exercise of responsibility of the "air traffic officer", a DGAC employee , which was responsible for the omitted control.
The main cause of this inadequate argument lies, in our humble opinion, in the fact that the appeal Court, probably the first judge, had no knowledge about the profession and duties of the air traffic controllers.
The Court, in fact, refers to the journalistic figure of the **"*flight controller*"** and not to the **air traffic controller** thus giving him a 360° responsibility for any source of danger that indistinctly may regard a flight.
The judges, in our opinion, are unable to understand that our profession is defined in the entire world, as that of an ***air traffic controller*** in order to distinguish the functions: not generically connected to any situation of danger, even not recognised in flight, but related to the management of air traffic.
So much so that the ATC, specifically, is responsible to keep an aircraft separated from obstacles on ground only when he's controlling a flight during the radar vectoring phase.

Not to mention, in this deformed vision, that the Court also attributes the responsibility to the Air Traffic Controllers about controlling the on-board documentation and the proper stowage of goods on the airplane so enlarging, outside any limits, their functions and responsibility about a flight (pg. 76, 2nd paragraph of the motivations).
The seriousness of this improper mixture between the tasks of the Air Traffic Controllers (both ENAV and Air Force employees) and those which DGAC - ENAC employees carry out under the directives of the local Civil Aviation authorities (that perform a distinct supervision and control activity on the airport operations, clearly of a technical and administrative nature) leaves the level of knowledge of the aviation sector in the hands of the Judges thus showing the need to assign the trials that require a very specific competence in complex national and international aeronautical regulations, to "new" specialised sections of justice (as ANACNA has been claiming for decades).

5. LIMITED KNOWLEDGE OF NATIONAL AND INTERNATIONAL AVIATION REGULATIONS BY THE COURT

The Appellate Court of Cagliari – notwithstanding the repeated references made by the defence lawyer to the fact that the controllers had scrupulously complied with the international regulations concerning the Visual Approach procedure – more than once sustained, referring to the alleged additional conditions for the night-time Visual Approach procedure that the self-determination of the Italian State, with its unlimited sovereignty, is not subjected to any international and/or community laws.
According to this extravagant view, ICAO has no power to dictate provisions nor rules to individual Member States in relation to the management of their airports and flight systems, and even less so the European Union. Who reasons in this way - in our opinion - demonstrates to not have sufficient knowledge:

- about the ICAO functional mechanisms;
- about the differences between standards and recommended practices;
- about the acknowledgement of the technical Annexes in force, due to a legislative provision (art. 690 of the Italian Navigation Act);

- about how the framework of the aviation legislation fully respects the European regulations that rule the ATM as it changed over the time;
- about the different lines of dependency between military controllers and civilian controllers.

The Court has sustained many times that: "*it is not true that a pilot, when he requests a Visual approach, exclusively assumes the responsibility for the flight guaranteeing separation from obstacles*". In another part of the sentence it's also read: "*It is true that when a pilot requests a Visual he does so given that he is able to separate himself from obstacles, but it cannot be sustained that the repetition of the pilot's statement <<yes, I am capable of separating myself from the obstacles>>, is sufficient for the controller to feel free to issue any clearance under the exclusive responsibility of the pilot. The controller, notwithstanding any pilot's responsibility, is not forced to issue any Visual approach clearance, especially at night when visual approach rules are much stricter*".

These are the arguments that cannot be debated, in an International Civil Aviation environment, given that they are based on technical regulations misunderstood and rewritten by the judge without possessing the necessary knowledge.

Such a weird criterion in judging, however, has been announced when totally opposing on the final findings of five super-experts. The same experts have been tasked by the Public Prosecutor and their results didn't match with the Judge's opposite conclusion but they were totally respectful of the technical regulations in force. It all left us at a complete loss.
What is the competence of an ordinary judge (without any specialisation) in interpreting the scope of the technical regulations, is not understandable, so far.

Rome, 25th June 2010

Legend:
ACC: Area Control Centre
AM: Aeronautica Militare Italiana - Italian Air Force
ENAV: Società Nazionale Assistenza al Volo -
ENAC: Ente Nazionale Aviazione Civile – Italian Civil Aviation Authority, after 2004
DGAC: Direzione Generale Aviazione Civile – Aviation Directorate of Department of Trasportation, before 2004

Note to the editor:
ANACNA (the Italian national association of Assistants and Air Traffic Controllers) is the only technical-professional body of air traffic control in Italy not pursuing any political, trade union nor profit scopes. It gathers a thousand of professionals, civil and military, controllers and assistants. ANACNA cooperates with all the bodies and organizations operating in the field of air traffic management aiming at the safety and efficiency of air navigation and the development of the methods and procedures related to a safe, economic and orderly air flow in Italy, as well. ANACNA is also very much active in the international field being in partnership with IFATCA, the International Federation of air traffic controller, since 1964.