Recent decision on bird strikes: operators'liability according to technical and legal issues.

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Abstract

This study is aimed at examining the key points of one of the rare judgments concerning bird strikes, with particular reference to the functions assigned to the party in charge of the Air Traffic Controllers and to the role of the regulatory provisions in identifying the violations resulting in a contractual and tortious liability for damages. Although bird strikes are very common and represent one of the most serious threats to air traffic safety, the jurisprudence on the matter is quite limited. This circumstance, together with an international legislation that does not indicate any unitary instrument for the identification of the parties to be held liable for damages caused by collisions between birds and aircrafts, makes this Court decision particularly remarkable.
The case under examination concerns an aircraft collision occurred during taking off at the coastal Genoa airport Cristoforo Colombo, when a cargo aircraft of large size collided with a flock of seagulls, coming from the near dump of Scarpino. At first instance and on appeal, it has been established that the controls put in place by the airport operator in order to prevent bird strikes (today, Wildlife Program Control) were all perfectly working and compliant with the rules in force at the time, that the crew behaved correctly even if the flight preparation proved to be inadequate, and that the Air Traffic Controllers behaved in compliance with their duties. The Genoa Court of appeal has then concluded that the damage was caused by unforeseeable circumstances. This article is a summary, as objective and aseptic as possible, of the most relevant elements of the mentioned judgment (which has recently become final). However, there is need to specify that the author of this article has been a member of the ENAV defense team during the appeal proceedings. The present article is then to be read considering this particular circumstance.

Key words: bird strike, tortious liability, contractual liability, strict liability, Air Traffic Service Provider, technical measures, technical rules, Aeronautical information service, obstruction, caso fortuito, fortuitous event

Reconstruction of the dynamics of the event

The first section of the Court of Appeal of Genoa – with the decision n. 1004 published on 4 August 2015 – has established that the liability for the damage is to be ascribed to fortuitous event ("*caso fortuito*"). This decision has completely disregarded the judgment of first instance, pronounced after a proceedings lasted several years and characterized by a thorough technical consultancy, with partisan experts but also experts in aviation and ornithology appointed by the Court. During first instance proceedings, the attention was drawn in particular on the reconstruction of the dynamics of the event, and on the implementation of the technical prevention equipment, in use when

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the accident occurred, as well as on the technical and "human" organization of the parties in order to assess their adequacy to prevent bird strikes.
As a matter of fact, during the proceedings of appeal, the technical advisors of the Court of Appeal of Genoa (a General of an Air Team of the military aviation and an aeronautics engineer) have confirmed the dynamics of the event, as already reconstructed by the technical consultants of the Court in first instance (even if during the appeal the matter has been further investigated with respect to the characteristics of the aircraft, indeed the Flight Guide was made available, which had not been considered in the first instance). But the appeal judge, unlike the first instance judge, took in great consideration the advice of his consultants, whose conclusions have been also reported in the final judgement.

The key elements are the following:
The bird strike in question took place on 19 June 1997 at about 6.45 a.m. (local time) and involved the four-engine jet AN 124-100 (one of the biggest in the world, conceived for military purposes and used today mainly for the transportation of bulky goods) owned by the Ukrainian company ANT O.K. Antonov. The reconstruction of the dynamics of the event made by the Court has established that the aircraft took off from Genoa airport and, two seconds after the wheels had detached from the runway, collided with a flock of hundreds of seagulls, which had suddenly crossed the strip, arriving, at a speed attested between 30 and 50 Km per hour, from the north part of the airport.
For the purpose of reconstructing the event, there is need to remind that the Genoa Cristoforo Colombo airport, opened to international air traffic, is placed by the sea, and the presence of an open dump of municipal solid waste at about one kilometer towards north-west hills (Scarpino) makes it particularly exposed to the presence of birds, especially seagulls.
The collision occurred at a height between 11 and 30 meters, causing damages to the Antonov internal right engine n. 3, that switched off immediately, and to its internal left engine n. 2, whose power was reduced in order to avoid vibrations soon after the taking off.
The above mentioned technical advisors of the Court have ascertained that "*the flock of seagulls became visible only in the last fifteen seconds and when the distance flock-aircraft was such to allow a sighting by the aircraft (more useful for any decision to be taken)*". There is need to highlight that the air cabin, provided with large lateral glasses, is placed at 11 meters from the ground, so allowing pilots to have a very good view.
On that day, the weather forecasts on Genoa airport reported good visibility, it did not rain but the strip was wet. These elements, as we are going to see, play a key role in the reconstruction of the aetiology of the event. At 6.44 the aircraft took off and two minutes later, at 6.46, communicated to TWR of having hit "too many birds" and of having a blowout at engine n.°3. The controllers then asked the aircraft if it wanted to declare emergency, receiving a negative response.
Landing occurred at 6.54 and the controllers asked again to the pilots if the aircraft needed any assistance, receiving again a negative answer.
The bird strike in question, due to the incomprehensible decision of the crew of not declaring the emergency state, was defined at that time "a major aeronautic inconvenience" and not an aeronautic accident. Since the declaration of emergency was lacking, a formal technical investigation by the competent authorities could not be initiated on an ex officio basis, as provided for by art. 826 of the Italian code of navigation in fore at the time the event occurred. The initiation of such an investigation

would have probably allowed obtaining significant and reliable evidence on the dynamics of the event, on the damages suffered by the aircraft, and especially, on the causes of, and liabilities for, the accident, as foreseen in the mentioned art. 826 of the Italian code of navigation in force at that time.
The bird strike prevention system, the procedures and the devices the airport operator should have applied according to national and international legislation were in use at the time the accident occurred, and met high standards of security. This circumstance clearly emerged since the beginning of the investigation carried out during the first instance proceedings, such that the Court of appeal did not deem necessary to reopen the technical investigation concerning the adequacy of the deterring systems in use at the airport, while it did on other points, which will be examined hereafter.
The weight was found to be higher than that foreseen for a rejected take off with wet strip, while the airplane center of gravity (CG) was not certified, since the loadsheet lacked of the pilot in command's signature.
According to the technical consultants, the flight preparation had been "at least, poorly accurate"[1].

The Court decision in first instance and the position of the air traffic controllers

Though recognizing the hard work carried out by the judge in first instance on such a complex and technical matter as the *bird strike*, scrolling down the 160 pages of the decision, the conclusion drawn is that the judge was conditioned by his same scruple, refusing, on many (too many) points to take into account the advices provided by his consultants and taking, from a certain point on of his analysis, a "third way", that led him to sanction the joint and several liability of four, out of five, of the defendants (ENAC was discharged because at the time was not constituted yet!), condemning them to compensate the damage claimed by the Ukrainian insurance company – the main defendant in first instance having substituted, according to art. 1916 of the Italian civil code, the aircraft owner into his rights – and by the aircraft operator, although in different percentages: 35% each, charged to Aeroporto di Genova S.p.a. and ENAV; 22,5% charged to the Ministry and 7,5% to Genoa Port Authority.
In particular, the Aeroporto di Genova S.p.a. was condemned as direct manager of the Genoa aerodrome, ENAV as entity "*in charge of flight safety*", the two governmental entities on account of a "*lack of supervision on the practical organization of the safety and prevention services by the final operators*".

The two Ukrainian companies have claimed the condemnation of the defendants for various reasons and in particular, for what concerns the airport operator and ENAV, an award of damages according to art.1218 of the Italian civil code (for contractual liability), art. 2043 of the Italian civil code (for tortious liability) and of art. 2050 of the Italian civil code (for tortious liability resulting from the exercise of a dangerous activity). For what concerns the Genoa Port Authority, the Ministry of Infrastructures and Transport, and ENAC, for tortious liability for omission of the appropriate controls on the work carried out by the airport operator and ENAV.

There is need to remind that the Court that has issued the judgment of first instance, had already decided on a bird strike case occurred in the same airport, 9 years before the contested judgment[2]. Therefore, a serious doubt arises – but this is a personal opinion – on the fact that, issuing a cumulative condemnation, the Court's intention was that of admonishing all the entities involved in the activities of the Genoa airport, no one excluded, as an exhortation to diligence and in the – wrong, in the author's opinion – belief that to an extension of the competences corresponds an increase in safety.

But if this perceived need can be attributed to a human way of thinking, it cannot surely be accepted when dealing with the justice of the case, above all when the experts' conclusions have at once pointed out the existence of elements of interruption of the casual nexus, which must be the foundation of any attribution of liability, even when objective.

As mentioned above, the judgment of first instance had condemned the defendants, joint and severally and with different percentages according their liabilities, which were deemed to be different, for causing the damage, to the payment of over 2 million e 500 thousand US dollars (relating, in part, to the damages suffered by the engines and the aircraft, but also to the expenses borne for refit) .

This condemnation results from a technical-reconstructive activity carried out by the Court of first instance, that has identified the grounds of the conviction not in the violation of positive rules of prevention, but in the existence of a "*fault in the organization*", identifying in the "*human patrol"* the cause of the event. In particular, the Court has deemed, essentially and for what concerns the Air Traffic Service provider, that the four controllers present in the tower have correctly meet the duties, but that ENAV was however responsible for the damage, on account of the fact that it had not foreseen a "further control" aimed at sighting, in due time, the seagull flock arriving from the northern part of the strip. The Court arrived to propose a technical alternative to the procedures in use, inspired to "*scalability and higher incisiveness criteria"*, that, for what concerns ENAV, should have brought to add a fifth man at the Control Tower, in charge of sighting the seagulls and, in general the potential threats looming from the north side of the strip.

ENAV has been then condemned, notwithstanding the Court having ascertained that the (four) controllers present in the tower could not have seen the flock approaching from the north in a useful time, such to prevent the event from occurring, since two of the controllers were necessarily watching traffic circuit (in Genoa's aerodrome, towards the south) and the other two had the visual precluded, due to the presence of radar screens towards which their attention was (mandatorily) turned. The technical solution suggested by the judge was that the entity in charge of the air traffic control should have foreseen an additional controller to cover the north side of the aerodrome, even if such a solution was not provided for by any law or regulation. For what concerns the liability of the airport operator, this was ascribed to "*a lack in foreseeing an additional appropriate supervision, i.e., armed staff with a radio device*, to control the north side of the runway". Once again the judge has suggested a solution not provided for by any law or regulation, and irrespective of the fact that the judge himself had ascertained that there hadn't been "any material non-compliance with the organization requirements for granting flight safety".

With respect to this third solution, identified independently from the conclusions of both the experts and the parties, and completely lacking of any valid reference to rules of technical nature indicating a violation of the controls devices foreseen by the legislator, the judge has excluded that the event can be ascribed to unforeseeable circumstances.

If the conclusions of the Court of first instance had been confirmed in the final judgment, the Air Traffic Controllers should have dealt with a new task, not provided for by any law or regulation and completely out of the functions foreseen for their position. Subsequently, they would have been required, according to a decision taken by a Court, to fulfill tasks for which they are not properly trained or organized.

The decision of the Genoa Court of Appeal

The judgment of appeal is in line with the conclusions of both the experts and the parties, identifying the cause of the event in "fortuitous event", having verified that all the parties involved had diligently complied with all the requirements provided for by the legislation in force. The decision in question deserves a thorough analysis under different points of view, but the first thing to highlight is the importance attached, while assessing the appropriateness of the actions taken to avoid the damage, to the technical rules, contributing to reconcile these latter with the legal norms.
The Court did not further go into the details of the tasks provided for by the legislation and, as specified hereafter, did not identify the competences of the single air traffic operators. This was due to the fact that it deemed sufficient, for the purpose of deciding on the case in question, to ascertain the facts that proved that the casual nexus between the event and the damage had been cut. The judge deemed unhelpful to decide on whether ENAV had special tasks with respect to bird strikes, since, in the case in question, it had been ascertained that the TWR couldn't have sighted the flock in a useful time, such to avoid the event. Therefore, the discontinuity element between event and damage was identified in the objective impossibility for the controllers, for the BSU (Bird Strike Unit), and the pilot (whose liability was claimed by the defendants as a co-cause of the event, or as the exclusive cause of the event itself), to sight in a useful time (and then in a time compatible with a rejected take-off) the approaching flock. This point will be further examined hereafter.
However, with reference to the elements of the law relevant to this study, the Court has, *incidenter tantum*, agreed with the principle – not held in case-law, moreover when applied to the aeronautics industry – according to which the evidence by the operator of having precisely complied with "*the technical measures foreseen by laws or regulations*", excludes the "*possibility to assess the appropriateness of these measures*" and with it the presumption of the liability of the party, also when it carries out a dangerous activity[3]. Therefore, once identified the legal and technical norms in force for bird strike prevention (all referring to the airport operator) and the air traffic controllers' duties provided for by technical law and regulation, for what concern taking off and landing, the evidence of having adopted these measures and having complied with all the procedures foreseen, excludes any strict liability and the judge cannot, and shall not, make any assessment on the appropriateness of these norms for the purpose of preventing the event. This principle is confirmed in various parts of the sentence, namely:
With reference to Air Traffic Controllers (page 53): "the TWR could not report to the pilot the presence of birds <u>because this is not provided for by any norm or procedure</u> (see attachment 17,[4] tasks and duties of ATS services, with particular reference to TWR). If it had to intervene, it shouldn't have reported to the pilot the presence of the birds, but, <u>according to the procedure in force</u> (on this point see the provisions adopted by the Ministry of Infrastructures and Transport – General Directorate for civil aviation; Final Report by commanding officer Currado annexes from 23 to 32)[5] it should have been warned by the competent airport operator staff on the runway unserviceable due to the presence of birds, suspending the taking offs and *landings or revoking, but only if not yet initiated, the clearance to take-off; in this latter case, when the taking off has already initiated, the TWR should absolutely keep silent*" (author's note irrespective of the possibility of sighting, or of the actual sighting of the danger). With reference to airport operator: "In the case of the BSU, positioned at point Z of the map, we can agree that it should have, in first place, see the

seagulls (we remind the light condition at that moment), interpret their intentions (it is difficult believing that all the seagulls of the port cross the runwayin that particular area), calculate their trajectory, and assess the risk, it should have then call the TWR to declare the runway unserviceable of the airport, and only then the controller, getting in contact with the pilot, should have suspended the taking off; as a matter of fact, the BSU does not have at disposal an aeronautical radio ground/on board/ground working on earth frequencies,, but only a radio on terrestrial frequencies (and this is appropriate: see on the topic the provisions adopted by the Ministry of Transport – Directorate General of the civil aviation, attachments from n. 23 to n. 32 to the final report of 1° level of the commanding officer Currado), that is the only possibility at the unit's disposal, irrespective of the number of its members. Every other assumption gives rise to very confused scenarios, which are not compliant with flight safety standards."

The Court concludes as follows: "*Even if the seagulls had been seen in the moment they appeared, the very little time at disposal to develop the information (i.e. they are on a collision route), the position (and speed) of the aircraft, the risk of worsening the situation, have rationally precluded any action, that, as said, was not foreseen (on the contrary is excluded) by the ICAO regulation and that, however, even if hypothetically taken, wouldn't have led to any different conclusion*".

Consequently, the exam of the previous paragraphs allows to state that the Court has transcended the dangerous principle (which is not new in the national legislation framework) established by the Cassazione with sentence n. 6828 / 2010, that had assigned to the airport controllers a role of "grantors", by imposing on them the obligation not only of complying with the ICAO regulation but also of integrating such regulation with *"prudence, cautiousness and diligence"*. Therefore, the mere evidence of having complied with the procedures shouldn't have (and in the case of the accident of Monte dei Sette Fratelli, has not) allowed the controller of being held not liable.

The reconciliation between the technical and the legal norm – in favor of all the airport operators– seems to have been appropriately assessed by the first section of the Genoa Court of Appeal.

Although the relevant regulation under exam does not include, *ratione temporis*, the art. 733 bis of the Italian Navigation code, it is useful to remind that the legislator, in 2014, acknowledged the conflict – not only potential – between the technical and the legal norm, tracing back "*the tasks, the functions and the operational procedures of the cabin crew, the military staff and other staff involved when providing air navigation services for the general traffic*", to the provisions "*of the EU legislation, as well as to the national technical rules adopted by the ENAC according to art. 687 I° co. and 690 I° and II° paragraphs, and to operational manuals of the service suppliers of the air navigation, military aeronautics and air operators*".

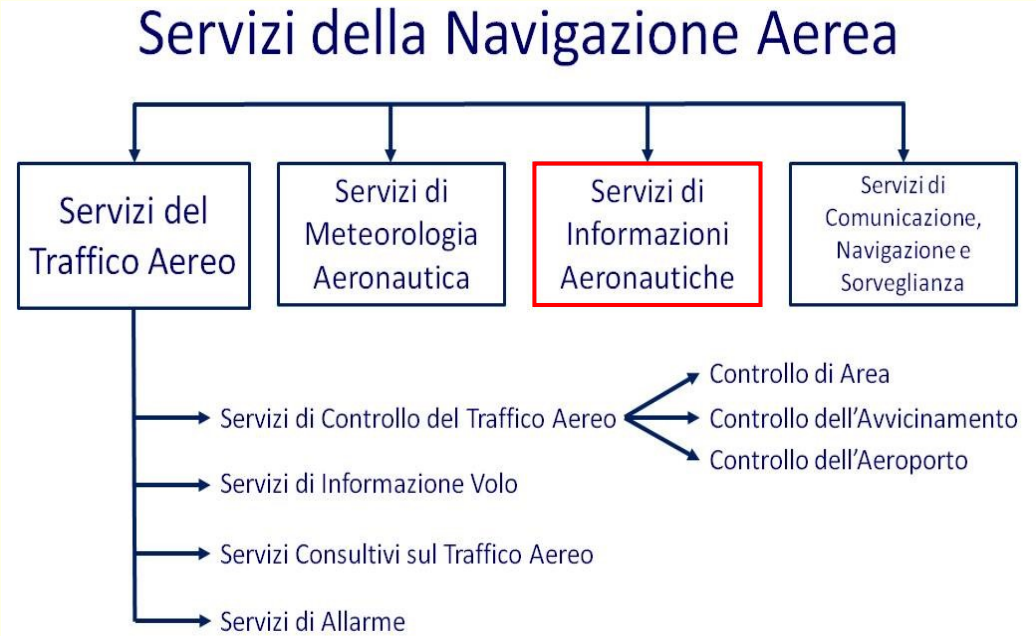
In conclusion, with reference to this point, the appeal judgment, also on account of the authority of its rapporteur, becomes very relevant in the special jurisprudential framework; however, it is impossible not to consider that the Court did not seize (or did not want to seize) the opportunity to issue the final judgment establishing that Air Traffic Controllers are unrelated with the bird strike matter. And indeed, although the above reported paragraphs surely represent a useful element to define the limits of the responsibilities of the operator clarifying that, in some circumstances, neither the legislator, nor the Court can substitute an assessment on the appropriateness of the procedures that has already been made by the technical legislator. It would have been better if the Court had take a clear position on the lack of Enav's capacity to be sued.

It has instead opted for the application of the principle of the proceedings of the most liquid reason (“*ragione più liquida”),* that allows the judge to examine a motive of merit susceptible of granting a final judgment, also in presence of a preliminary question like that presented by ENAV with reference its own lack of the capacity to be sued. In a nutshell, the jurisprudence of legitimacy (reflected in the decision by the Court of Genoa) has stated on this matter that, if the case can be decided in the merits on account of a circumstance of fact that can be immediately ascertained, for reasons of procedural economy and speed, the judge can choose to follow this procedure omitting to adjudicate on non-functional preliminary issues.
Returning to the exam of the reasons of the decision, it is worth highlighting that the Court has affirmed that carrying out a dangerous activity leads to a presumption of liability (and not of fault) and then the aetiologic nexus between carrying out the activity and the damage shall exist and shall be demonstrated by the damaged party (page 44 of the sentence). The Court has established, that the presumption of liability works only when the operator has already adopted techniques *different* from those provided for by law or regulation. The Court continues, drawing from well consolidated principles, confirming that, in presence of an efficient cause that can, alone, make the event happen, the above mentioned nexus is cut, and the investigation on the omission of the required measures to be taken by the airport operator according to art. 2050 of the Italian civil code becomes irrelevant. The Court has deemed that, in the case under exam, there are several factors able to cut the casual nexus. Among these, without entering into details, for the sake of brevity, the reduced time for sighting by both the tower and the strip operators, and the weight of the aircraft at the moment of taking off (that, also if the pilots had seen the flock, wouldn’t have allowed a secure rejected take-off).
In the opinion of the author of this study, there is need to carefully consider the intention to classify the activities carried out by the main defendants (Airport controllers and Airport operator) among those regulated by art. 2050 of the Italian civil code, to demonstrate the impossibility to classify, *a priori,* among these activities the one carried out by the airport controllers.
And in fact, although the jurisprudence has left margin to different interpretations, there are several reasons that lead to reasonably exclude the applicability of the mentioned art. 2050 of the Italian civil code to the aviation activity in general and, all the more, to that of the Air Traffic Control. In particular, this statement is supported by a not recent pronouncement on this topic, that establishes as follows: “*The legislator does not consider air navigation as a dangerous activity, it cannot be deemed (for its nature, characteristics of the instruments used or its particular harmful potential) objectively dangerous, considering that it concerns a mean of transport widely diffused and considered, compared to others, with a low level of risk, in abstract and in general*”[6]. Therefore, in the opinion of the author of this study, the activity auxiliary to the effective navigation, such as Air Traffic Service, cannot, all the more, be considered dangerous, and this short but significant illustrative paragraph of an authoritative doctrine is certainly to be agreed with: “*not specifically for the intellectual and not directly practical character of the activity, but for the fact that it is a question of complying - with due diligence, cautiousness and prudence - with procedures broadly codified in detail and applied since long*”[7].
There is need to highlight, indeed, that whether the nature of an activity is dangerous or not, is an assessment to be made *ex ante,* reflecting on the harmful potential, with reference to the likelihood (and not to the mere possibility) that the damage occurs, and not with reference to the extent and kind of consequences that can arise when the activity is *carried out negligently (ex multis*, Cass. n. 2220 del 28.2.2000).

The jurisprudence has clarified that the "air navigation" can be considered dangerous according to art. 2050 of the Italian civil code when it is carried out in conditions of *"abnormality"* with respect to some elements relating to its scheduling (*i.e. "flight plans, security conditions, etc…"* (Cass. n. 10551/02). In the opinion of the writer, in a case like that herein examined, where every procedures has been held and there weren't deviation (the renown of the bird strike phenomenon at the Genoa airport, the full compliance by the all operators involved, with the relevant technical rules, on both the use of the dissuasion instruments and the alarm procedures), the Court has not properly considered these elements so to exclude the applicability of art. 2050 of the Italian civil code. In substance, it is possible to state that the *bird strike* prevention program – operating since 1997 and today implemented – have strict procedures to be followed, which make neutral the potential danger that could arise from a classification of the nature of the activity of air navigation, and all the more, of Air Traffic Service.
Since the high standardization of the procedures is a key element of all the phases of the air navigation and, as far as this case is concerned, of the activity carried out by the flight controllers, the wish is that the jurisprudence takes into consideration this element to reshape the correct application of art. 2050 of the Italian civil code to the air navigation.

Focus on the competences of air traffic controllers on the topic of bird strike: nonexistence

The services provided by ENAV can be summarized as follows[8]:



The functions relevant to the present case shall be examined in detail: (a) "Air traffic services" e (b) "Aeronautical information services".

Air traffic services

The services provided and better described in the rules hereafter reported, do not assign the provider the task of meeting any requirement of the aircrafts in flight, but they clearly and specifically define the competences of the air traffic controllers in order to create – also at international level, for consistency reasons – standard procedures which cannot, and must not, result in inconsistency or discretion.
In order to make them easier to consult, the relevant rules are fully reported:
>> L. 665/96 : "2. *The Entity is in charge, in particular, of the organization and provision of the following services: a) air traffic services, that is the service of control of the air circulation, the service of flight information, the advisory and alarm service*".
>> Art. 691 bis Italian navigation code "*Provision of air navigation services: ….. the air navigation services, as well as the preparation of the obstacle chart, are provided by ENAV S.p.A., a public company, for the air spaces and the airports under its competence. ….. ENAV S.p.A., under the supervision of ENAC and acting in collaboration with the airport operator, regulates and controls, for the airports under its competence the movements of the aircrafts, of other means and of the staff on the maneuvering area and grants the orderly movement of the aircrafts on the aprons….*"
>> Art. 2.2 of the annex to ICAO 11[9-10], named "*Air traffic services" (ATS), identifies the tasks ("objectives") of the air traffic controller*[11]:

1. *Prevent collision between aircrafts;*
2. *Prevent collision between aircrafts on the maneuvering area and between aircrafts and obstructions on the same area*;
3. *Accelerate and maintain an expeditious flow of the air traffic;*
4. *Provide useful warnings and information for a safe and efficient flight conduct;*
5. *Make the competent authorities aware of the fact that an aircraft needs search and assistance, and support such authorities according to the needs.*

The ICAO Doc. 9426 subordinates to the density of the air traffic the opportunity to establish or not a specific ATS service among those illustrated in the above mentioned art. 2.2 Annex ICAO 11. In particular, the Air Traffic control service, (objectives a) and b)), is established at the airports with a high number of aircraft movements, so to avoid that pilots hold the liability for separating the aircrafts in flight, both arriving and departing, and in the traffic[12], circuit, as well as to prevent the collision between the aircrafts and the obstructions present on the airport maneuvering area; liabilities and tasks that, therefore, when there is no ATS service, are assigned only to the pilot.
When the Air traffic Control Service is provided, the ICAO regulation defines in detail the tasks assigned to the control tower:
>> ICAO Doc. 4444/Rac 501, Part. V "Aerodrome Control Service":
Function of Aerodrome Control Tower**:**

General
Aerodrome control towers shall issue information and clearances to aircraft under their control to achieve a safe, orderly and expeditious flow of air traffic on and in the vicinity of an aerodrome with the object of preventing collision(s) between:
a) aircraft flying in the aerodrome traffic circuits around an aerodrome;
b) aircraft operating on the maneuvering area;
c) aircraft landing and taking off;
d) aircraft and vehicles operating on the maneuvering area;
e) aircraft on the maneuvering area and obstructions on that area.

Examining the above mentioned rule, the following conclusions can be drawn:
When an Air Traffic Control Service is provided, the separation between the aircrafts in fight is under the competence of the "Aerodrome control tower"; where that service is not provide, that functions are assigned to the discretion of the pilots of the aircrafts;
The separation between aircrafts and birds or other obstructions (for example, clouds, kites, etc.) present during the flight is a task that is never assigned to the Italian air traffic service provider, or to its international equivalents;
The TWR or the AFIS units shall however provide the "Flight Information Service" integrated with the aerodrome information, which depend on what has already been published by the Aeronautical Information Service.

Any structure in charge of Air Traffic Control (in Italy, ENAV), in order to provide this service, shall carry out very precise activities, that are preliminary and required (Annex 11 art. 3.3). These are:

a) Obtain the information concerning the movements foreseen for every aircraft (for example, flight plans) and their variations, the updated information on the development of every flight;
b) Determine, from the information received, the positions of the known aircrafts, one with respect to the others;
c) Issue authorizations and information aimed at preventing the collisions of the aircrafts under its control and accelerate and maintain an orderly traffic flow;
d) Agree with the other units (author's note: for example, other air traffic controllers) on the required authorizations.

The rules illustrated above clearly establish that ENAV (and, in general, all the operators, at international level, providing "Air Traffic Control Services") is in charge of maintaining the separation of heights and routes between the known aircrafts (not all the aircrafts then, but only those which can communicate with the control tower, and that this latter knows on account of the coordination with another structure of air traffic control services) and between these latter and the obstructions present on the maneuvering area (the part of the airport used for taking-off, landing and the movements of the aircrafts on the grounds, aprons excluded)[13].
Art. 2.2 Annex ICAO 11, already mentioned, specifies that the air traffic service has the objective of preventing collisions: (a) in flight, between aircrafts and, (b), on the maneuvering area (on ground) between aircrafts and between aircrafts and obstructions.
The air controller then:

1) Has the task of separating the aircraft from the obstructions only for what concerns the maneuvering area (on the ground), but not for all the air space under his competence.
2) Does not have the task of "sighting" the obstructions, since this task is assigned to other, clearly identified parties.

So, the air traffic controller has undoubtedly the task of preventing the collisions between the aircraft and the obstructions present on the maneuvering area, but this – in the writer's opinion – does not mean that the air traffic controllers must sight these obstructions and proceed to make the organization adequate to this task. And indeed, the identification and following communication of any obstructions on the maneuvering area to the control tower – these obstructions could be, for example, a deer (likely visible from the tower) or a screw-driver (objectively impossible to sight for the control tower operators) – are in charge to the airport operator, who shall verify the accessibility of the runway (Annex 14, among others) and is liable for it, and to the pilot,

who must verify in person, and irrespective of the other parties, the accessibility and safety of the area he is going to run along.
The "*obstacles*" intended in the aeronautical sense, and above all "flight safety" purposes, which are under the responsibility of the provider according to art. 2.2 L. 665/96, are illustrated in art. 709 of the Italian code of navigation[14]. The annex ICAO 4 defines the obstacles as "*charting objects*". Consistently with the mentioned art. 2.2. Annex ICAO 11, the art. 691 *bis*, III co., of the Italian code of navigation, also previously mentioned, by regulating the Air Traffic Service, foresees the control, operated by ENAV, of the "*aircrafts and other means, and of the staff present on the maneuvering areas*"
In claris non fit interpretatio! The tower operators must be "organized" in order to meet their obligations, among which keeping separate the aircrafts or the aircrafts and the obstructions if these latter are on the maneuvering area (and then on the ground and not in flight). The obligation of the separation is not equivalent to, nor presuppose, the sighting obligation, which is on the contrary in charge to other, well specified parties.

Aeronautical information service

The rule examined until this point, defines the limits of the competencies assigned to ENAV and, specifically, to the tower operators, excluding that they are entrusted with the obligation of the separation of the aircrafts from any obstacle, in the widest sense of this word, and not technical, and irrespective of its collocation into the space.
Furthermore, it seems appropriate, in this context, to provide a clarification on the type of information that the controllers must provide to the pilots.
Chapter 8 – par. 8.1 – of Doc. 4444-rac/501 details the "*essential information*" to be provided to the pilots, specifying – even before proving the list at point 2 – that these information relate only to "*the movement area or any facilities usually associated therewith*", excluding thereby that the list of information is always, and in any case, comprised in the communications to be provided to the pilots. Therefore, the air traffic controller communicates to the pilot the information listed at point 2 only if recognized on the mentioned areas (runway, maneuvering area, taxi ways) and only if these areas are involved in <u>that</u> taking-off or landing, as provided for by the repeatedly mentioned art. 2.2.
(b) Annex ICAO 11, these rules shall be naturally coordinated with. Furthermore, art. 8.3 establishes that the above mentioned information shall not be provided when it is known that the aircraft already has received all or part of the information from other sources, above all when they are well established sand as such are included, as specified in the following "Note", in the so called "*Notam*" ("Notice to Air Man") and in the permanent publications (AIP)[15], that the pilots must mandatorily consult when planning the flight.
It is therefore important to highlight that the air traffic controllers must provide the *essential information* within the above mentioned limits, but they are not the originators of the information, but only the mean through which this information arrives to the pilots. And indeed, as already reported, with reference to the "obstructions", the air traffic controllers are not entrusted with the task of detecting them (and so of becoming the source of such information), but have the duty of transmitting the information, they have received from other sources, concerning their presence on the maneuvering area, within the limits described above.
On this point the major regulating authority on the matter has issued a clear pronouncement, that is the ICAO, that at § 2.2.1.1 of Doc. 9426 states the following:

"*The fact that FIS has been entrusted to ATS, even though the information emanates or is generated by other ground services (airport operators, the MET and communications (COM services), is due to the fact that ATS is the ground service which is most frequently in communication with the pilot*. From this it follows that, while ATS is responsible for the transmission of that information, the responsibility for its initiation, accuracy, verification and timely transmission to ATS must rest with its originators",. In addition, there is need to consider that the originators of the information are the pilots themselves who are required to transmit directly to ATS the reports in flight (so called, AIREP and AIREP Special) about the situations and conditions (weather, presence of birds, etc..) that represent information to be transmitted to other aircrafts by FIS (Flight information service).
Art. 8 of the mentioned doc. 4444 went through an adjustment which it is worth to be reported. In particular, the text in force in 1985 provided, at (g) an incidental sentence, appropriately cancelled in the following version. On the information to be communicated to the pilots, this sentence established as follows: "*g) presence of birds, observed, or reported, on the ground or in flight on the airport area or in its vicinity*". In the subsequent versions of this text, reference to an "observation" of an obstruction, have been eliminated.

Conclusion

Summarizing the notions examined in this document and applying them to the case under exam, what should have occurred according to the competencies assigned is the following: if the BSU, entrusted with this task by the airport operator, had sighted in time the forthcoming flock of birds arriving from Porto Petroli, and had assessed the relevance of the trajectory of the flock with respect to the air space in the airport vicinity, they should have timely state the runway or aerodrome unserviceable by the control tower. There is need to consider that the simple communication of the presence of a forthcoming flock shouldn't have had, alone, any significance, since the information is already known and permanently published in AIP. What is relevant instead is the consequence of the sighting in concrete, with respect to the accessibility and possibility to use or not the airport infrastructures and the near air space, which is a specific obligation of the airport operator. Whether the airport operator has sighted the flock, does not obviously affect the obligation of the pilot, whose task is to examine the air space and then sight the danger represented by the presence of groups of birds. The pilots should have then assessed their trajectory with respect to the intended maneuvering and take the relevant measures. The only task of the control tower was, in the first case, acknowledge the declaration of unserviceable by the airport operator and immediately suspend the operations; in the second case, acknowledge the communication by the pilots that they would have delayed the taking off maneuvering (if not initiated) or rejected taking off, if the run had already initiated and they had not reached the V1 yet. What has been said about the pilots is absolutely consistent with the fact that they daily carry out activities in thousands of airports, where, even in presence of a bird strike risk, the ATS is not provided.
It is worth to remind that the expert appointed by the Court has however specified that, in the situation actually occurred, the controllers, even if they had sighted the flock, should have remained silent (precise words) in any case, since this communication, when the taking off had already begun would have been unhelpful, if not harmful, resulting in a source of distraction for the pilot.

In conclusion, the Air Traffic Controller (like any other operator) cannot be entrusted with competencies and duties not specifically foreseen, both for what concerns the active competencies (*i.e.*, bird sighting), and the passive ones (*i.e.*, communication of information).

The already mentioned ICAO deals with the importance of defining in detail the tasks of the air traffic controllers, and in doc. 9426 §1.2.3 reports the following: " since ATS is normally the only ground service which is in direct contact with aircraft in flight, care must be taken in assigning additional responsibilities emanating from other national requirements to ATS (i.e. diplomatic authorization to operate over the territory of a State), operational supervision of flights, etc. (i.e. national security), so as not to dilute the service provisions of ATS to a point where it will become difficult for controllers to draw a clear line in distinguishing the different capacities in which they are expected to act. In general, experience seems to indicate that the less **additional responsibilities that are given to ATS the better it is able to meet its primary objectives**"; and yet: § 1.2.4 " Similar considerations apply with respect to the provision of information by ATS to aircraft not directly derived from the activities of ATS (e.g. information on the status of other than ATS facilities and services, meteorological information, etc.). **Such information should be provided to ATS for onward transmission in a manner and form which requires the least amount of interpretation and/or responsibility for the accuracy and timeliness of the information in question**".

In the ICAO rule, although it is very detailed, there is no mention to the obligation for the air traffic controllers to sight the birds while the same obligation is imposed (first of all) on the pilot and then on the airport operator. This because the regulator has evidently considered that, also in case of sighting of birds by the air traffic controller, the transformation of this factual element in an aeronautical information in the sense indicated by the rule, is substantially impossible to provide in order to "require the lowest possible level of interpretation" and the highest "accuracy *and timeliness*" ((see. docc. 9426 par. 1.2.3.

Finally, a simple consideration can clear up any doubt: taking offs and landings are carried out and authorized by the control towers (all over the world) also with no visibility (fog, darkness, etc.). Indeed, the air traffic controllers are able to adopt all the precautions, so that, during these phases, there are no collisions between aircrafts or between aircrafts and obstructions, according to the mentioned Annexes ICAO and the code of navigation.

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The assessments included in this article represent the author's personal opinion and cannot be in any case attributed to ENAV S.p.A. or to parties other than the author herself.

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Acknowledgements

I want to express my sincere gratitude for the significant tecnical work carried out in the appeal proceedings, to the ENAV Legal Office and the advisors Dott. Massimo Petrella, who prematurely passed away, Dott. Michele Bufo and Com.te Enzo Feliziani.

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[1] *In particular, on the flight plan, the technical consultants of the Court have noted that: 1) the aircraft has been authorized to the cargo flight for the transportation of two heavy Ansaldo turbines, in strict compliance with the Flight Manual; 2) the aircraft has been authorized to arrive with a crew of 8 people*, while *it left with even 20 people; 3) the loadsheet reported a weight at take-off of 370.125 kilos, while according to experts' reports it was of 382.000 kilos; 4) the crew had not gone through the flight documentation, in particular of the AIP publication reporting on the permanent bird strike risk*

[2]*Sentenza Tribunale di Genova del 23 agosto 2001 (TNT case)*

[3]*Cass. N. 3022 , 2 March 2001, mentioned in the judgment in exam*

[4] *The annex to the experts' report to which the Court refers, indicates legislation sources of technical nature relating to the tasks and the objectives of the air traffic services, and namely: Annex 11 ICAO (ATS); ICAO doc. 9426 (ATS Planning Manual); ICAO Doc. 4444 (Air Traffic Management procedures for ATS).*

[5]*ENAC and Ministry of Infrastructures and Transport aimed at regulating the airport service of bird scaring, and reports and orders of the same administrations from 16/7/1980 to 27/5/1997.*

[6]*Cass. n. 10551 del 19.7.2002; conf. Cass. 11234 del 13.11.1997; Cass. n. 6175 del 20.6.1990*

[7](*Guido Camarda, "La responsabilità per l'esercizio di attività pericolose nel campo aereonautico", in Rivista di diritto dell'economia, dei trasporti e dell'ambiente, II/2004).*

[8]From technical report by Dott. Michele Bufo (Enav's consultant in the proceeding of appeal)

[9]*In particular, on the flight plan, the technical consultants of the Court have noted that: 1) the aircraft has been authorized to the cargo flight for the transportation of two heavy Ansaldo turbines, in strict compliance with the Flight Manual; 2) the aircraft has been authorized to arrive with a crew of 8 people, while it left with even 20 people; 3) the loadsheet reported a weight at take-off of 370.125 kilos, while according to experts' reports it was of 382.000 kilos; 4) the crew had not gone through the flight documentation, in particular of the AIP publication reporting on the permanent bird strike risk*

[10]*International Civil Aviation Organization, whose members are almost all the countries of the world, established with the Chicago convention on 7 December 1944, (implemented in Italy with the legislative decree - D.lg. 6 March 1948, n.616and in force since 8 June 1948) and modified with the subsequent Montreal Protocol of 10 May 1984 (implemented in Italy with the Law 29 January 1986). The ICAO norms establish the general Standards, which are actually unbreakable and the recommended practices.*

[11] *Reported as indicated in the related ENAC regulation, "Air traffic services" which has implemented in Italy the provisions of the ICAO Annex 11.*

[12]*ICAO Doc. 9426 (ATS Planning Manual), §. 1.5.2; ICAO Doc. 4444/RAC 501, Part. V "AERODROME CONTROL SERVICE".*

[13] *Definition of "maneuvering area" present on ENAC website, glossary.*

[14]Art. 709 cod. nav. :*"Obstacles to air navigation are the buildings, the tree plantations, orographical reliefs and in general the works that, by virtue of their destination in use, interfere with surfaces related, as defined by ENAC in its own regulation. The constitution of fixed or mobile obstacles to air navigation is subordinated to the authorization by ENAC, with a previous coordination with the Ministry of Defense."*

[15] *Doc. 4444 par.7.5.3.: "the essential information on the conditions of the airport shall be provided to every aircraft except when these information can be deemed as already known, since received from other sources"; NOTE: the other sources are NOTAM, dispatch via ATIS, presence of proper warning signals."*