When in 1994 an important CAA executive and former boss of mine, recently appointed Chairperson of Bird Strike Committee Italy, telephoned me and in a “friendly” manner “ordered” me to prepare a paper and a presentation for a bird strike meeting which was going to be held soon in Palermo, three things immediately appeared clear to me: 1) Palermo was a beautiful town that I hadn’t visited since I was a teenager, therefore a Government paid week-end was not so bad. 2) I had no idea what to say at the meeting as my ignorance about bird strikes was almost absolute. 3) My ignorance on such a issue probably was not an isolated phenomenon, since the Chairperson was searching speakers to fill the agenda, rather than the contrary. Incidentally, seven years later it was my turn to be appointed Committee Chairperson, and I am still thanking my boss for his unexpected request.

At that time I was managing the small airport of Alghero, in the northwest coast of Sardinia island, whose traffic was about 400.000 passengers per year, and my relationship with local wildlife was excellent, in the sense that I had no idea even of the number of the impacts yearly reported in my airport, due to the simply reason that there was no report procedure at all and no superior directive issued for such a purpose.

Thanks to “video(games)mania” of my young son, I was then one of the few in town who had a personal computer and an Internet connection. So I spent several after-dinner evenings surfing the web looking for specialized sites, using search engines, and discovering a totally (for me) new world, fascinating as well as worrying, especially for some airport manager responsibilities, that I totally ignored to have.

I kept in touch by e-mails with several experts, especially Americans, who welcomed me in the “bird community”, as they called the group of people in the world that tried to cope with the problem of impacts with birds. I was surprised, even if not too much, when I realized that they were, almost everybody, ornithologists or biologists, a fact that appeared natural considering the topic, but the absence of law experts hit me.

I was considering how to deal with the birdstrike problem from a legal point of view, and in particular, the rules, both technical and procedural, to be assigned to the airport operators for prevention purposes.

So I found out the American and British regulations, already available on the Internet, while we Italians had only the few ICAO Annex 14 paragraphs, furthermore at that time containing only recommendations. I also found out J.Thorpe’s European statistics, from which I learnt that about 60% of impacts occurred inside airports or in their surrounding areas.
But what about the remaining 40%?

American and British regulations were so accurate regarding airports, but very vague for external areas; so I decided to send tens of faxes and e-mails to all the experts I managed to identify and I asked everyone the same question: what happens in your country if a farmer ploughs his field, bordering on an airport, perhaps on the runway extension, with thousands of seagulls flying behind its tractor, while air traffic is in progress?
It was a revelation: the answers I had were univocal. Nothing, nothing happens, nobody can do anything other than praying the farmer to stop it, or convince him to work in the night-time. I had found my presentation for Palermo!

The idea was quite simple: we had in Italy an old law regarding obstacles to air navigation, directly originated from ICAO Annex 14, that imposed ties and limits to private property in the airport neighbourhood, in order to avoid buildings, high trees, electric lines and cables; in one word all the things that could be considered a danger for air navigation safety. It would have been sufficient to extend that law to include birds as mobile obstacles, for controlling bird attracting factors in the bordering airport areas, where the hazard was higher.
It was undoubtedly clear that little or nothing remained to do inside airports, if not the actual enforcement of the measures suggested by science and experience, and that there was no other need other than researches and tests to identify new techniques and procedures. But the rules were already established.

On the contrary, outside airports there was no rule other than sovereignty, dominion (dominus = master in latin) of the private citizen or company on their land, where they was allowed to do practically everything, unless what was forbidden by a law (law in a formal and technical sense, to impose itself upon a constitutional principle like the property right; a simple administrative regulation would not have had the same binding power of a law).

Therefore I threw off a new law draft in my paper and went to Palermo meeting with this in hands.
I did not have great hopes to change the world and the paper was received by the audience with moderate appreciation (friends and colleagues above all, of course) and some criticisms.

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Birdstrikes, the gorgeous Palermo week-end, and the meeting presentations were forgotten soon, buried under the daily routine, but one day, two years later, immediately after the political elections for the Parliament turnover, a young local newly elected Parliament member knocked at my office door. He was waiting for his flight to Rome and, just to waste time, asked me if I had some ideas regarding new laws about air navigation and airport safety. Slightly annoyed, I gave him the Palermo paper just to please him, and went back to my own business.

Great was my surprise when a few weeks later I discovered that the paper had become a formal law draft presented to the Italian Parliament.
The draft was not approved, or – better – there wasn’t time to discuss it. However in 2001 it was automatically transferred to the new Parliament agenda.

In the meantime, a wide discussion was in course in Italy regarding the opportunity to completely reform the Air Navigation Code, issued in 1942, when aircrafts were made of wood and fabric, and absolutely inadequate to cope with the needs of modern civil aviation.
In the year 1999 a special expert and jurist commission was set up by the Government with the task of drawing up a new code draft. The Bird Strike Committee Italy, that I had joined, then suggested that the substance and the spirit of the 1994 draft be transferred in the new text.
Omitting the commission vicissitudes and the multiple new code drafts issued during those years, the result was achieved in 2005, when the final text was eventually promulgated in the form of a law. The Code parts concerning wildlife issues are reported here below.

"In order to grant air navigation safety, ENAC (i.e. the Civil Aviation Authority) locates the zones to be subjected to restraints in area bordering on airports and establishes the limitations regarding obstacles to air navigation and potential dangers to it, according to international technical regulations"

"In the above mentioned areas (bordering on airports), works, plantations and activities which might attract wildlife, or be a potential danger to air navigation, may be prohibited or limited. All works, plantations and activities in those areas, must be authorized by ENAC after a risk assessment regarding air safety.

They are a few lines, but absolutely revolutionary and innovative in the legal panorama both domestic and international.

Let’s therefore analyse the outstanding points.
I will intentionally avoid in this case to face legal discussions not easily understandable by foreigners, who obviously do not know our legal system, and I will remain strictly focussed on the substance. I can only add that this matter was difficult to be ruled due to some statements in the Italian Constitutional Charter (1948) that ratified the property right as one of the fundamental principles, following an ancient tradition rooting in the Roman Law. However such a right has to be mitigated by the "social function" that the property must assume, and by the power of the State to subordinate it to the common good, up to legal expropriation, i.e. the loss of private property and its acquisition by the State, against a just compensation. Such a power to take over people's properties has to be founded on public and superior interests to be protected, and must be exploited only in restricted cases expressly considered in a law. This is the reason why even air navigation safety could not be granted before against bird encroachment without a formal and explicit law.

Also in other Countries there were many similarities; even where several forms of regulation on private activities outside airport existed, they were mostly founded on owner's cooperation and persuasion, rather than on a real and direct State power (they were guidelines more than orders).

First of all, the subject who owns the power to identify and restrain the areas is uniquely ENAC, Ente Nazionale per l'Aviazione Civile, a branch of Government, that in other countries is generally called CAA (Civil Aviation Authority).

Secondly, overcoming the old regulation based only on "obstacles", it is clearly stated the power to intervene even in case of generic “potential dangers to air navigation”. Among potential dangers, just to remove all doubts, the Code expressly mentions everything that might attract wildlife, and in particular works, plantations, (human) activities.

Thirdly, for already existing dangerous situations inside these areas “bordering on” airports, ENAC may order their elimination or demolition, against a just money compensation to owners. In order to avoid new attractive factors in the same areas, ENAC shall authorize only those recognized compatible with air navigation safety. It means that all non authorized works, plantations and activities become automatically illegal, with all due consequences.

As everybody may remark, there's not a precise indication of the "bordering on" meaning, in terms of physical extension of the area surrounding an airport, on which ENAC exploits its power: the Italian legislator did not take in consideration the 13 km. limit recommended by ICAO.
Therefore it is reasonable to presume that many controversies will arise soon on what is bordering and what is not. Personally I would suggest an interpretation based more than on a metric distance, on the capability of a certain factor to influence bird concentration in a certain site. For example, a landfill may be very dangerous in some circumstances although it is situated 50 km. away from an airport, while an agricultural land use, close to an airport, may not represent a hazard, especially if the plantation is unattractive for birds or a wildlife management plan has been implemented.

Furthermore, and fortunately, there’s no indication about the kind of activities which might be a potential attraction. According to the law statement, it could be everything, and this allows ENAC to exploit an almost absolute discretionary power when identifying the hazard sources, in favour of safety, mitigated by the dependence on objective technical, naturalistic, zoological assessments, to be considered in a debate with all the counterparts.

This paper wouldn’t be completely honest if it omitted the other side of the problem, e.g. the actual application of this remarkable and innovative law. Too often we get used with progressive and modern regulations, that do not find a practical application due to organizational issues or lack of resources and enforcements, as though we still were in the Middle Age.

It is clear that the new Code creates a great organizational problem for ENAC. As opposed to other Authorities in the world, ENAC is not yet equipped with its own staff of ornithologists, biologists, environment experts who can immediately start monitoring all 42 Italian airports and assessing their risk factors, and their interrelations, nor taking charge of the new works or activities requests that will arise soon from the Country.

Nor one may think to transfer this task to private airport operators, basically for two reasons: a) because in general the airport companies stockholders are the same local public Boards that request authorizations for new activities (e.g: a municipal landfill), creating a clear clash of interests; b) because birdstrike risk prevention activity is certainly oriented to the common Good, but also to airline business interests; by reducing bird strikes air carriers gain financial benefits, in terms of less damage, at other subject’s expense, who stand relevant costs against poor or no benefits at all.

A remarkable effort will therefore be needed, not only in financial terms, as recruiting and training personnel, but also in cultural ones, which overcomes the old stereotype that considers bird strikes like a natural and unavoidable fact, furthermore rare and almost irrelevant.

And last, I would like to mention the risk that possible legal controversies upon authorization refusals, compensation payments, demolition orders, which will drag on for years in the Courts, may block or slow down the current process of eliminating or mitigating the attractive factors leading to birdstrikes both inside and outside airports.

These are the next years challenges.