saercosafety

https://www.tourinews.es/resumen-de-prensa/notas-de-prensa-turismo-medioambiente/los-buitres-ponen-en-jaque-a-los-vuelos-en-bilbao_4453188_102.html

Safety Newsletter

saerco
the safe way

Newsletter n°10 september 2020

The risk posed to aviation by wildlife (in general) and birds (in particular) has always been a concern within the aviation world. The progressive increase in the number of operations during which the presence of birds is reported, as well as the increase in accidents and incidents related to impacts on birds (Bird Strike) implies a need for both action and awareness of this issue in particular.

One of the main indicators of the growing magnitude of the risk that birds can pose to aircraft operations is the increase in the number of sightings of large birds of prey in airport environments. Among the incidents highlighted for their severity related to these species are Bird Strike (collision between a bird and an aircraft in flight, during take-off or landing), Bird Strike with engine ingestion and quasi-collision.

For example, the presence of vultures throughout Spanish territory is significant, highlighting 5 regions that account for around 75% of the population. Their presence in large groups (between 11 and 30 specimens on average), together with their large size, can have serious consequences, as shown by the damage to aircraft in 88% of Bird Strikes with this type of bird, even causing fatal accidents in the last decade.

Mandatory reporting of bird events as stipulated by Regulation (EU) 376/2014 and Commission Implementing Regulation (EU) 2015/1018, only covers "Bird Strike", although it is possible to voluntarily report significant presence of birds/fauna at the discretion of the reporting personnel, depending on the location of sighting, number of specimens or size of specimens, as general criteria for risk assessment.

On the other hand, Article 10 of Spanish Royal Decree 297/2013, which amends Decree 584/1972 of 24 February on aeronautical easements, establishes *that the area included within the orthogonal projection of the aeronautical easement area on the ground is subject to an activity limitation easement, and any actions that may stimulate wildlife activity in the area surrounding the airfield movement area are subject to this limitation*. Actions to be limited would include the inadequate treatment of animal remains derived from livestock or fishing activities, the establishment of landfills, the provision of feeding troughs for necrophagous birds, or even activities such as hunting, in terms of their possible contribution to the conservation of necrophagous birds or pigeon racing activities involving the release of flocks of pigeons that can sometimes affect the airport environment, and therefore operations.

In this sense, and in order to increase the safety of the operations, as well as to highlight these possible attractive outbreaks for the birds, in SAERCO we consider necessary not only the mandatory reporting of Bird Strike as indicated in (EU) 2015/1018, but also the voluntary reporting

of events that imply this significant presence as a situation of potential risk, and that must be at least known. Finally, given the current situation, it is impossible to ignore the major impact on aviation of the COVID-19 pandemic. The control and mitigation measures adopted in response to the presence of the virus have resulted in a decrease in human activity, which is proving to have an increase in the presence of fauna in airport environments that have seen their activity reduced, with the consequent lesser impact on the environment in which certain birds live. This, coupled with a gradual recovery in operations and the industry, could lead to a continued increase in bird-related events that may pose risks to aircraft operations.

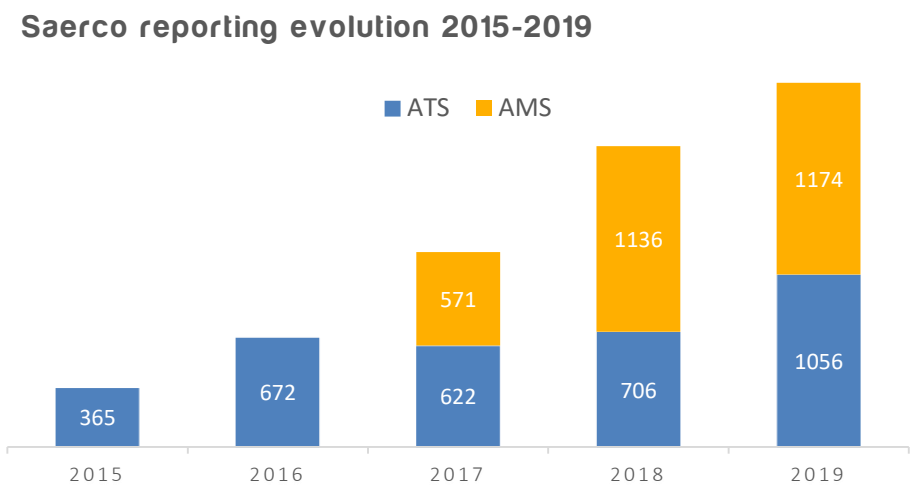
MATEO-TOMÁS, P., OLEA, P.P. When hunting benefits raptors: a cause study of game species and vultures. European Journal of Wildlife Research. 2010, vol. 56, p. 519-528.

https://www.infobae.com/turismo/2017/07/14/que-tan-peligroso-es-que-un-avion-choque-contra-un-pajaro/

thestatistics: reporting

Safety Reporting ATS SAERCO 2019 (total)		
MOR/VOR	Average Time to report	Average Time to MOR/VOR
1056	1:28:48	34:57:00

Safety Reporting APRON SAERCO 2019		
MOR/VOR	Average Time to report	Average Time to MOR/VOR
1174	1:09:58	31:18:21



SAERCO, thanks to the continuous improvement of its occurrences reporting tools and to the involvement of all employees in this task, manages to continue to exceed, year after year, the number of reports made about events occurring in the different ATS/CNS/MET units, in addition to the Apron Management Service (AMS) at Adolfo Suárez Madrid-Barajas airport, strictly complying with the reporting times required by AESA.

The above-mentioned reporting times have been reduced generally, with all units reporting events together on specific days of the week. This measure allows SAERCO to manage with quality the wide volume of events reported by all the operational personnel.

The reasonable increase of 49.57% in ATS reports should be noted, with the reason being the introduction of up to 5 new units during 2019. On the other hand, there is a stabilization in the number of AMS reports, with the reason for the increase between 2017 and 2018 in the accounting periods (in 2017 the whole year was not counted in APRON T123 and T4).

The statistics confirm the effectiveness of SAERCO's event reporting system, a tool consolidated as a basis for improving the level of safety in all its units.

"Achieving a reporting system where proactivity is the norm is not easy, it requires the effort and commitment of the entire organization, especially the operational personnel"

theinterview

We interviewed Bernal Figueiras, Aeronautical Engineer and Services and Development Technician of SAERCO, and assigned to the Safety Management System of Ciudad Real Airport, commenting on aspects related to fauna

From a safety point of view, what is your assessment of the presence of birds in the airport environment? The presence of birds in the airport environment definitely represents a risk for the safety of operations and requires a preventive approach aimed at reducing the risk of collisions and ingestion of birds by aircraft engines during take-off, landing, approach or climb phases and the case of military and general aviation aircraft, also during the cruise phase. Thus, the State Aviation Safety Agency includes in the Safety Action Plan for civil aviation 2019-2021 the control of fauna as one of twelve priority areas at national level. The risks caused by the presence of fauna are evident and can range from abrupt maneuvers to avoid collisions, to small collisions with a single specimen that do not cause significant damage to the airframe of the aircraft, to collisions or multiple specimen ingestions that may result in the failure of an engine or system that triggers an emergency situation. Perhaps the best known example both inside and outside the aviation world is "The Miracle on the Hudson", an incident in which a US Airways A320 was forced to land on the Hudson River without any fatalities among the passengers, after being hit by a dense flock of Canadian geese. Unfortunately, there have been many fatalities in accidents where the cause was the impact or ingestion of birds.

What kind of reports to the SNS are made in relation to the fauna in the airport area?

Annex IV of Regulation (EU) 2015/1018 establishes any collision with fauna, including birds, as a mandatory reporting event. In addition, from Safety we also report bird sightings as voluntary reports according to Regulation (EU) 376/2014.

Are safety indicators related to birdlife defined at the airport level? Yes, there are several whose measurement is done on a monthly basis and are communicated through the Airport Safety Indicators Portal (PISA) belonging to AESA, and include number of collisions with birds or presence of fauna, by monthly and accumulated number of operations.

How do you supervise the safety of an airport's Fauna Control Service?

Prior to the implementation of the service at the airport, the FCS (Fauna Control Service) provider has had to accept safety requirements through the signing of safety clauses and translate them into an Safety Surveillance Plan (SSP) on how it meets all the requirements and how it mitigates the conditions generated by the performance of its activities. When we proceed to carry out the supervision, based on the SSP and other requirements that we may identify as a result of local procedures and taking into account other inputs such as reports received, a questionnaire or checklist is drawn up and sent to the supplier during the on-site supervision.

In addition, it is used to check that service personnel comply with Safety Regulations on Platform and other local procedures. A few months ago, during the supervision carried out at the FSC, I had the great pleasure of being able to accompany the personnel during the performance of a deterrent flight and see how both the falcons and the personnel work. It is very worthwhile to observe the flight of these animals..

What happens at the end of the process?

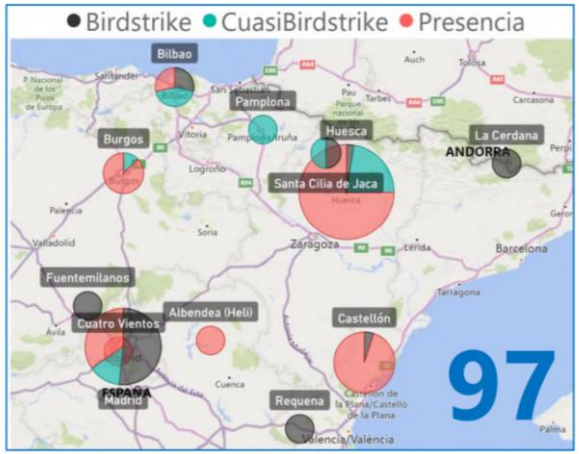
A monitoring report is drawn up setting out the deficiencies detected, if any, and requesting the supplier to take the necessary steps to rectify them.

Do you carry out any kind of informative action regarding birds? Yes, we publish informative newsletters every month and one of the last ones was about the dangers of the fauna and the need to report any sighting.

Potentially dangerous activities by fauna attraction and event reporting

On 29/01/2020, the II National Aviation and Fauna Forum organized by AESA was held, where a series of aspects related to occurrence reporting and fauna were discussed. Neither Regulation EU376/2014 nor, above all, EU2015/1018 consider the presence of fauna as a reportable event, considering only the collision with fauna, including birds as such. There are several activities that may constitute attractive fauna hotspots that take place in airport environments and are not reflected in the mandatory reporting regulations, such as certain activities that may constitute interference with an aircraft, ATS unit or radio communication transmission. This consideration of "interference" in the regulations is very specific to fauna, since its mere presence may condition operations in the sense of delaying take-offs, causing missed approaches/going arounds or situations where a runway is not usable at a given time because it is contaminated after a possible impact. In addition, the reporting of events involving fauna that only consider impacts would leave reporting with a merely reactive role, without the possibility of being a monitoring of trends and the existence of possible sources of attraction. In this sense, the AESA pointed out in the material published on its web page regarding this Forum a series of criteria that are very appropriate when taking a decision on what to report and that do not necessarily imply a confirmed impact with fauna, considering in addition to the collision, the quasi-collision in which an evasive manoeuvre had to be carried out, as well as the presence on the runway that represents a risk for the operation, that is identified as a high risk or that forces the operations to be stopped. Since the implementation of Regulations EU376/2014 and EU2015/1018, SAERCO considers this type of reports as a default within voluntary reporting, since objectively they do not correspond to mandatory categories but they do constitute a potential risk at the discretion of the reporting operational personnel in particular and the organization itself in general, although it would be expected that in future updates of both regulations they would already be considered as events subject to mandatory reporting, which would serve to unify criteria when reporting events related to significant presence of fauna, and not only the impact with fauna as such. Likewise, the default reporting of this type of situation would serve to highlight the presence of attractive wildlife sources in airport environments as aspects to be limited, in the same way as the proliferation of obstacles. Both aspects are considered in EU2015/1018 but initially with unequal consideration, where the "presence" of obstacles in the aerodrome or vicinity is "reportable" (not published in AIP or NOTAM), unlike in the case of fauna. In view of the problems that may arise from these potentially dangerous fauna presences, AESA has a web application that *offers information on the fauna present in each of the Spanish airports of public use*, the AESA "Map of Fauna of Interest to Aviation", including relevant species and focal points, as well as outreach work, report and surveillance, together with wildlife management and dispersal measures, is also an interesting source of consultation for safety analyses by airport managers, service providers and the industry in general, when addressing the problem analysis of fauna in airport environments.

Map of incidents involving vultures

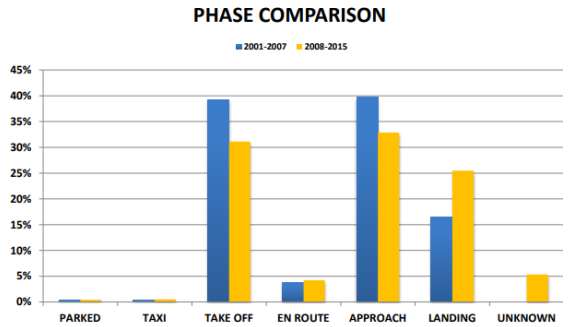


https://www.seguridadaerea.gob.es/media/4749500/03_notificacion_de_sucesos_y_fauna.pdf
https://www.seguridadaerea.gob.es/lang_castellano/aeropuertos_2/fauna/aeropuertos.aspx

lessonslearned:

Bird Strike Aircraft Accidents/Incidents

A bird strike can be defined as any contact between a moving aircraft and a bird or group of birds. This type of incident generally occurs in the vicinity of airports, especially during take off and approach phases, between the runway and the 2000 ft height above the airfield.



Most of these impacts generally do not have consequences for flight safety, but on certain occasions they have been the cause of major accidents and incidents, such as some of those listed below: On 15 January 2009, an A320 that had just taken off from La Guardia airport in New York hit a flock of geese, causing the loss of both engines. The crew chose to water landing into the Hudson River. The subsequent investigation of the accident confirmed it was a correct decision and the subsequent execution by the crew of the aircraft avoid a major catastrophe and saving the lives of all the occupants of the crashed aircraft.

A similar accident occurred on 15 August 2019 when an A321 that had just taken off from Sheremetyevo airport in Moscow hit a flock of seagulls causing the loss of both engines, for which the crew had to make an emergency landing in a nearby field. Once again, the pilots' successful performance managed to avoid a tragedy, with no loss of life.

On May 13, 2012, an A340 took off from Madrid-Barajas Airport, (currently Adolfo Suárez Madrid-Barajas), hitting a vulture around 2000 m high, which caused serious damage to the nose of the aircraft, radar and navigation systems, leading to the return of the flight to the airport.

This same year, an A400M of the Spanish Air Force, during a training flight, suffered the impact of a vulture against the fuselage, having to land in emergency at the Zaragoza air base.

Unfortunately, this type of situation is not always resolved in such a satisfactory manner, since on 15 September 1988 a B732, after taking off from Bahir Dar airport in Ethiopia, suffered the ingestion into its two engines by a flock of pigeons, which caused the aircraft to lose thrust, catching fire during the emergency landing it was attempting at the airport from which it departed, causing more than 30 deaths among its occupants.

Another tragic example of a bird strike occurred on 30 March 2016, outside the airport environment, when a C-172, flying over the town of Perales de Tajuña, (Madrid), was hit by a vulture, which greatly affected the aircraft causing a wing to detach, with the consequent loss of control of the aircraft and its subsequent fatal fall. Unfortunately, all three occupants lost their lives in the accident.

https://www.elperiodico.com/es/ocio-y-cultura/20161103/historia-real-heroe-capitan-sully-pelicula-eastwood-5605541
https://www.icao.int/safety/IBIS/2008%20%202015%20Wildlife%20Strike%20Analyses%20(IBIS)%20-%20ES.pdf
https://elpais.com/ccaa/2016/03/31/madrid/1459440538_864599.html

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