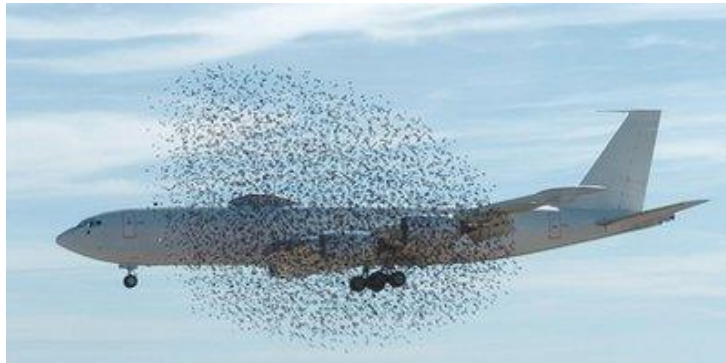




Wildlife strikes: working together



Wildlife Strike Hazard Reduction
Symposium

May 2017

Hull Loss accident with Fatalities

- In September 2012, A Dornier Do-228, from Kathmandu to Nepal with 16 passengers and 3 crew, was on initial climb out of Kathmandu's when the crew reported a bird strike and engine failure.
- The crew attempted to return but the plane crashed outside of the airport perimeter
- All occupants perished and the aircraft was destroyed. The bird was identified as a black eagle.



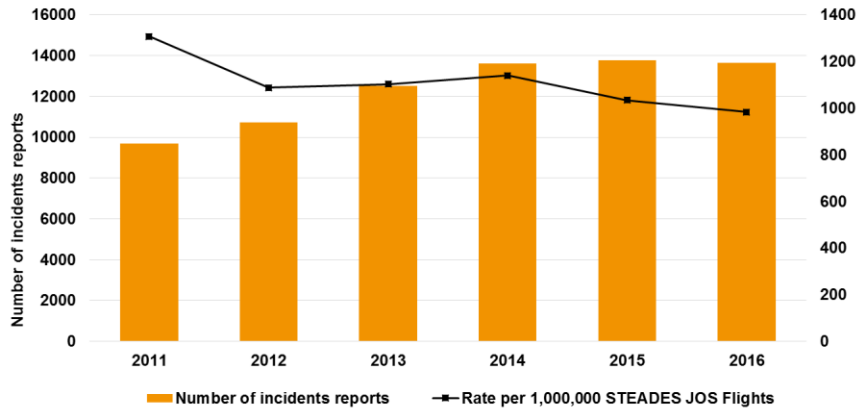
Wildlife strike overview: 6 years rate

	Total STEADES Database (2011-2016)	IATA Accident Database Wildlife Strikes (2011-2016)	IATA Accident Database All Accidents (2011-2016)
Number of incidents / Accidents	73,955 Incidents	17 Accidents*	471 accidents
Rate <i>(based on JOS flights)</i>	1,091 incident per 1,000,000 flights	0.077 accident per 1,000,000 flights	2.15 accident per 1,000,000 Flights
Frequency	1 incident per 917 flights 34 incidents per day	1 accident per 13,014,175 flights 1 accident each 129 days	1 accident per 464,270 flights 1 accident each days

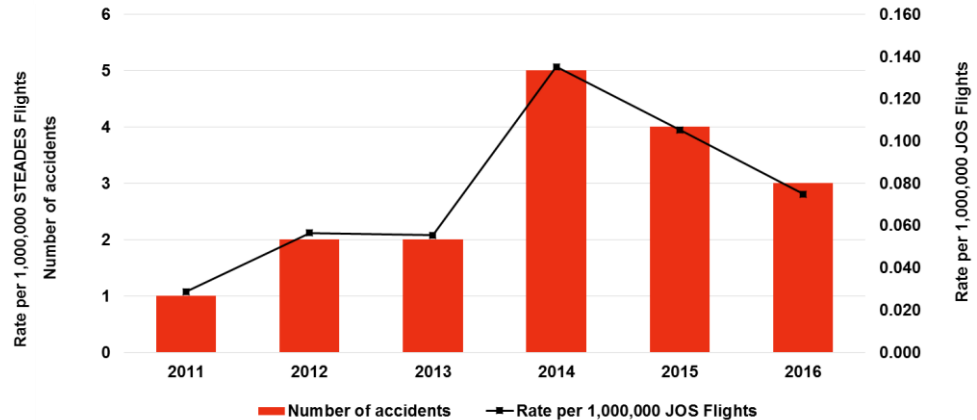
- **Two accidents classified as hull loss (one with fatalities), 15 classified as Substantial damage.**
- **12 Accidents were caused by bird strike, 5 by animal strikes.**

Wildlife strike: Yearly Distribution

Incidents-Yearly distribution



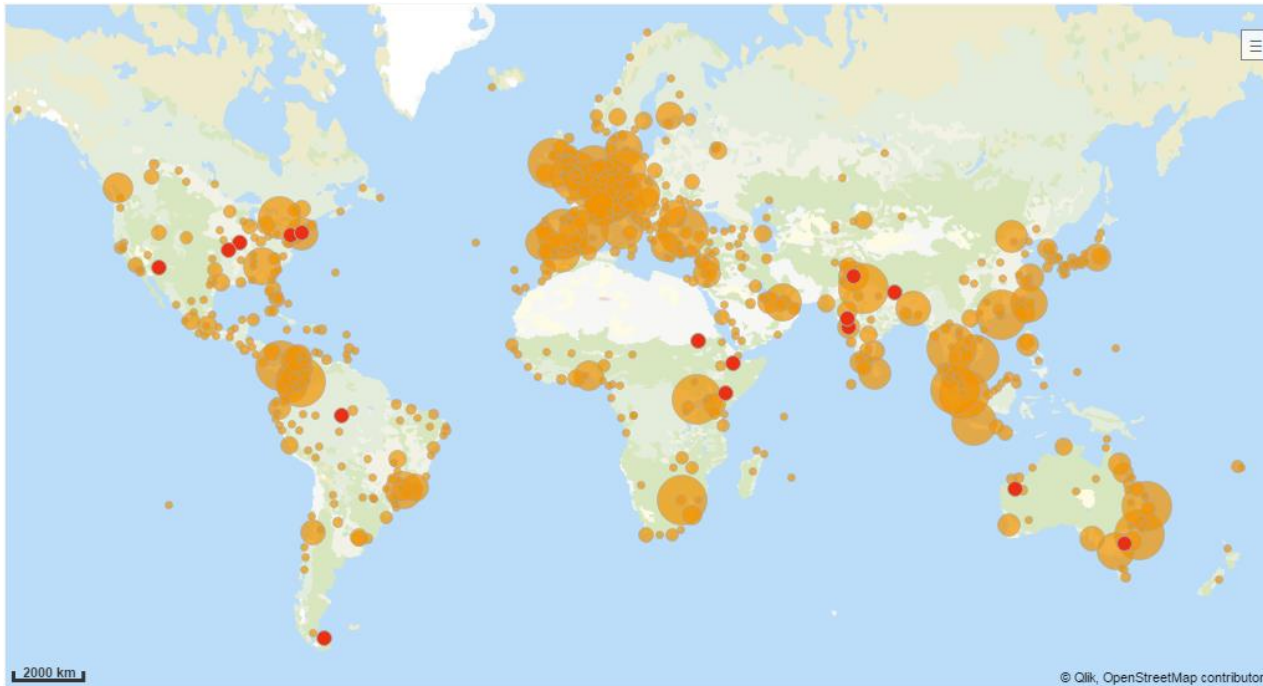
Accidents-Yearly distribution



- The number of incidents increased from 2011 until 2015, but the rate remained stable since 2012
- The number of accidents has been progressively increasing up to 2014, and then decreased in the two following years, with a rate per 1,000,000 JOS flights* for 2016 that is significantly lower than in 2014, but consistently higher compared to 2011.

* Source for flights: Ascend) – a FlightGlobal Advisory Service
 Note: World fleet includes in-service and stored aircraft operated by commercial airlines

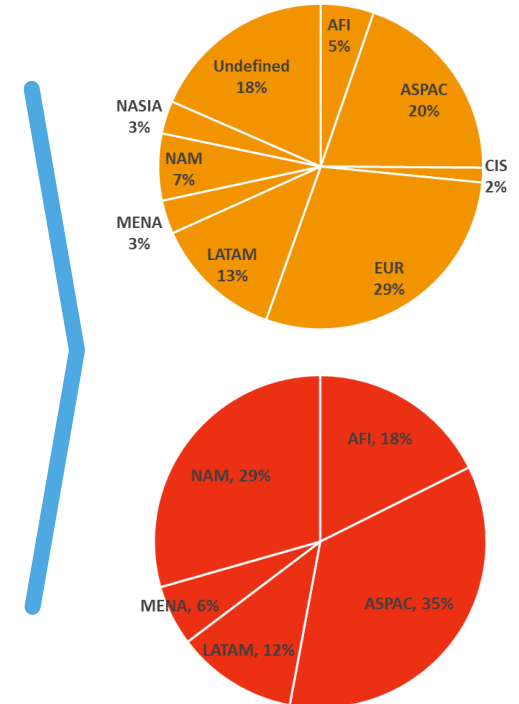
Wildlife strike: Map Distribution



 *Incidents*

 *Accidents*

Region of occurrence distribution





When it's bird vs. airplane, both lose

'We had a loud bang': Jet leaving Charlotte hits deer, makes emergency landing

Plane from Dubai grounded in city as bird-hit dents wing

Effective Wildlife Management Plan

- Wildlife management plans and multi stakeholders cooperation are essential factors to reduce wildlife hazards.
- Communication, cooperation and coordination with all relevant stakeholders is crucial.
- Non-airport related stakeholders such as local government are key in fixing issues outside the airport perimeter.
- Regular meetings, sharing of data

Multi stakeholders coordination: Commonwealth of Independent States

- In 2011, Pulkovo Airport highlighted a risk with a high number of bird strikes.
- A Wildlife Coordinating Committee was established with representatives from airlines, airport, Air Navigation Service Providers and IATA
- A detailed study was conducted which highlighted a local garbage dump located nearby the airport.
- A package of safety measures were implemented including working with the local garbage dump, training of personnel and the introduction of falcons to keep the birds away.
- **In three years, the number of bird strikes was significantly reduced** and the safety level was recognized acceptable.

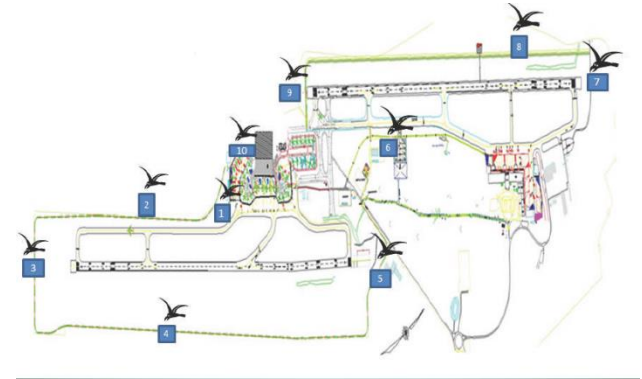
Multi stakeholders coordination: Asia-Pacific

- In SGN, the number of wildlife strikes was increasing and raised a safety concern by airlines.
- IATA engaged with the airport authority to determine the **effectiveness of the existing wildlife program, share best practices, and encourage airlines to report wildlife events.**
- A joint visit with the airlines, airport authority and IATA may be conducted to provide more specific recommendations to the Runway Safety Team if a reduction in the number of wildlife strikes is not seen in 2017.



Multi stakeholders coordination: Latin America and Caribbean

- In June 2011 IATA and ALTA formed a Committee with airlines, to gather data from airlines flying in the region.
- A **pilot project** between **IATA, ALTA, FAA, USDA** (US Department of Agriculture) **and local airlines** was launched.
- In 2012 a **USDA bird-strike expert** visited Ecuador and Panama Airport to perform a **wildlife assessment** and help develop a wildlife hazard management plan.



Results for Ecuador Airport



Multi stakeholders coordination: Latin America and Caribbean (cont'd)

Results for Panama



- After the positive results in these two implementations, other airports will be encouraged to **follow the lessons learned** and develop their own Wildlife Management Plan.
- **IATA is working with FAA, ALTA and USDA** to get a USDA Biologist based in the region full time in 2017-2018 to perform **multiple airport assessments**.

Summary

- Wildlife strikes present a real threat to aviation safety and represent 3.6 percent all aviation accidents.
- With the right stakeholders in place an effective wildlife management plan can be effective.
- It takes a real commitment from all the stakeholders especially those outside of the airport like local government to ensure all the hazards can be mitigated effectively.



...Questions?





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to represent, lead and serve the airline industry