



World
Birdstrike
Association

Inter-regional & Multidisciplinary Collaboration

Rob van Eekeren

President

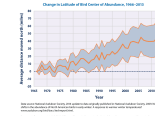
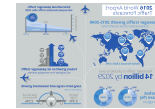
World Birdstrike Association



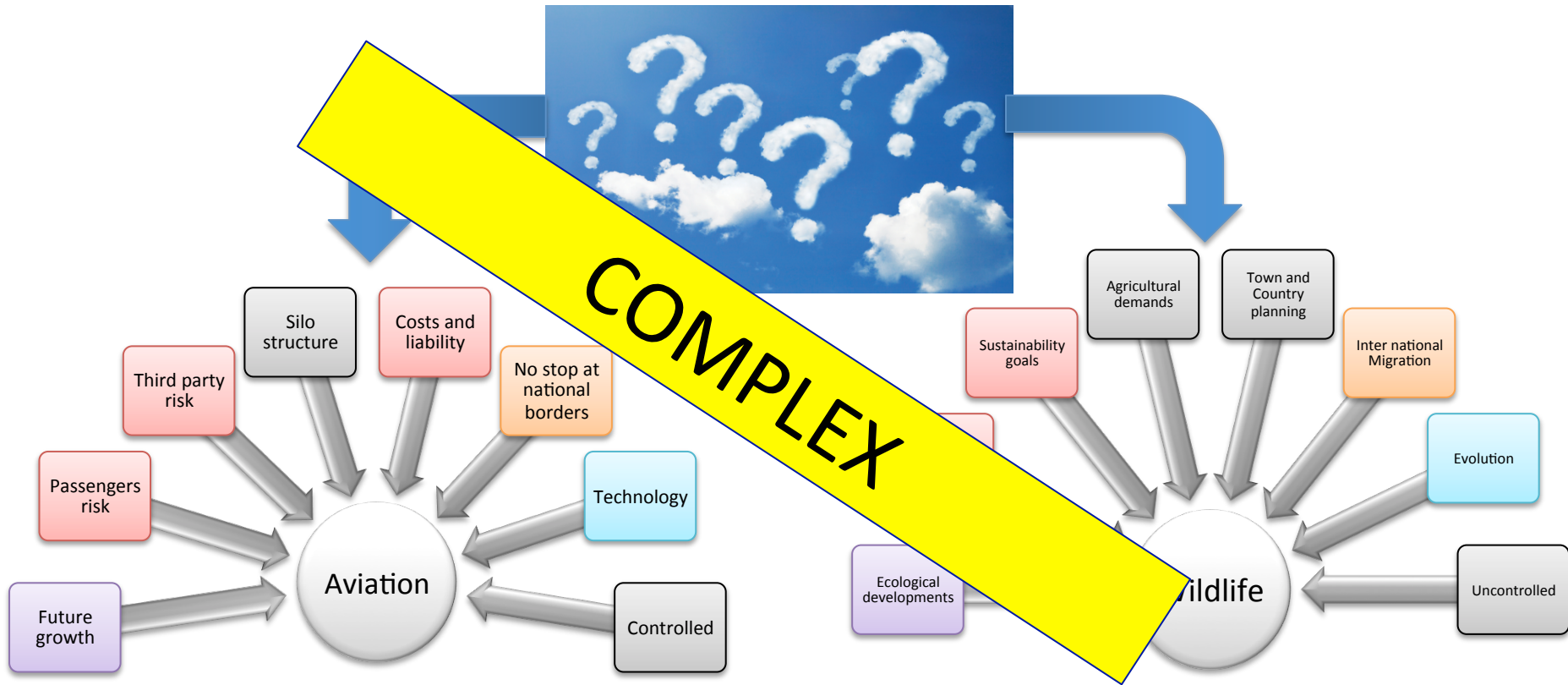
Lay-out presentation



- The topic
- Aviation growth
- Wildlife developments
- Risk management
- Restrictions
- Vision & Ambition



Factors involved

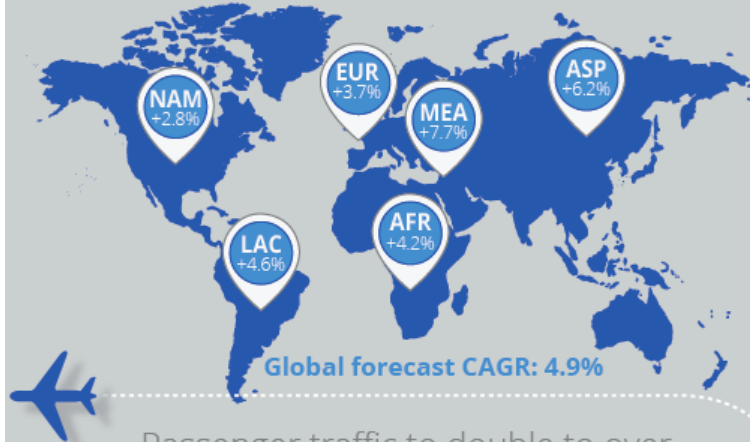


Aviation Growth



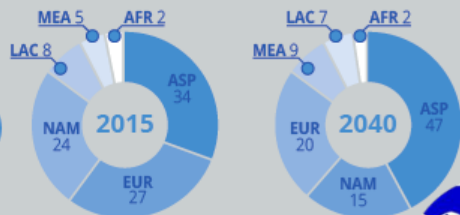
2016 World Airport Traffic Forecasts

Passenger traffic growth 2015-2040 (Compounded Annual Growth Rate)

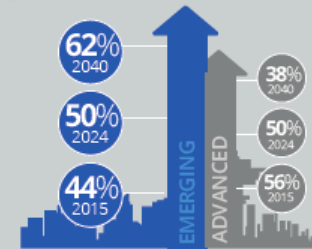
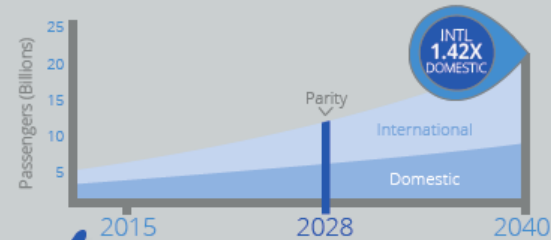


Passenger traffic to double to over **14 billion** by 2029

Market share (%) by region



International passenger traffic will surpass domestic traffic after 2028



Future growth in air passenger traffic will originate from emerging markets



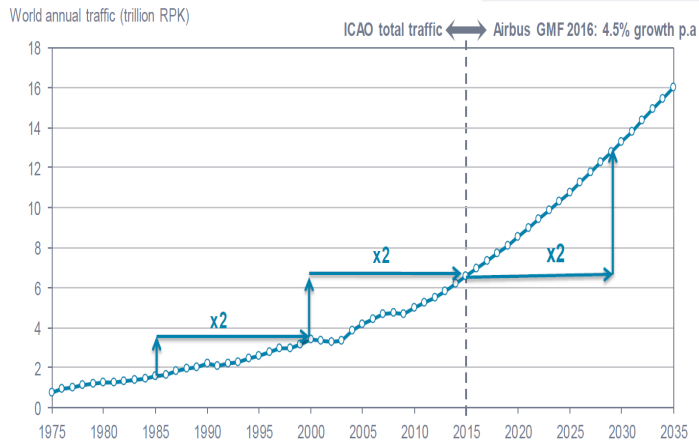
Long-term cargo and movement growth (CAGR 2015-2040)



Aviation Growth



Air traffic will double in the next 15 years



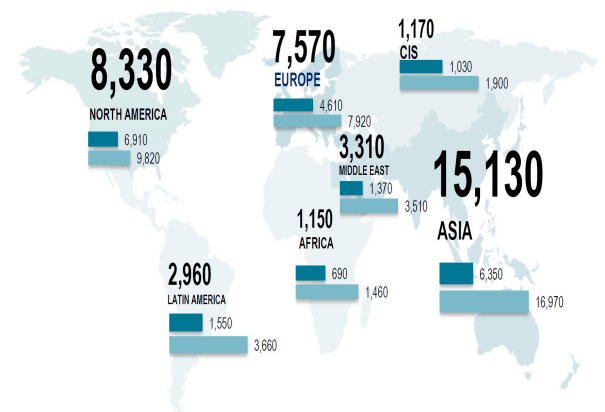
Source: ICAO, Airbus GMF 2016



✈️ **39,620** new airplanes **\$** valued at **\$5.9** trillion

New airplanes ●

World fleet 2015 22,510
2035 45,240



Conclusion:

In next 20 years, aviation expected at least to double.



Wildlife growth



Population trends of geese • Dolbeer et al.

91

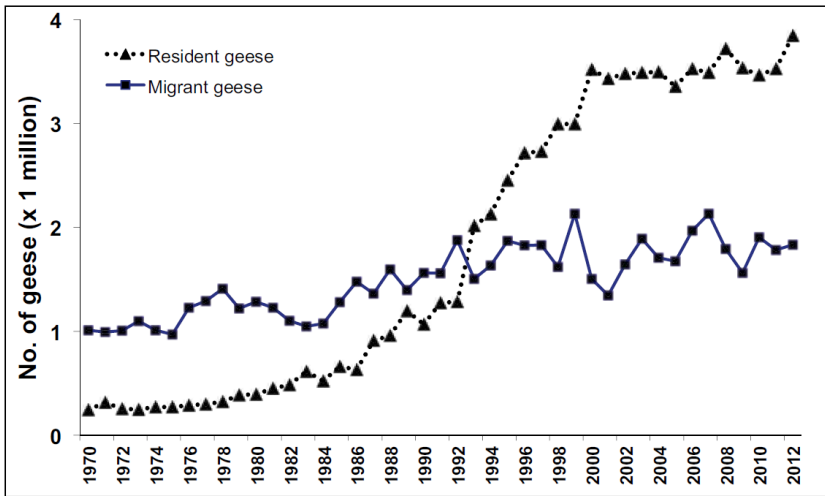
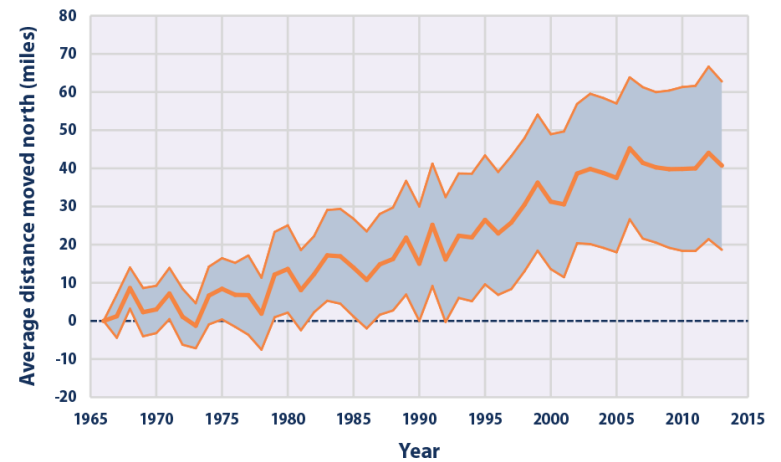


Figure 1. Population trends for resident (non-migratory) and migrant Canada geese in North America, 1970 to 2012. The resident population has exceeded the migratory population since 1993 (Table 1).

Change in Latitude of Bird Center of Abundance, 1966–2013



Data source: National Audubon Society, 2014 update to data originally published in: National Audubon Society, 2009. Northward shifts in the abundance of North American birds in early winter: A response to warmer winter temperatures? www.audubon.org/bird/bacc/techreport.html.

For more information, visit U.S. EPA's "Climate Change Indicators in the United States" at www.epa.gov/climate-indicators.



Wildlife Growth



Current

- Large bird migration to agricultural area's
- Shifting wintering area's more north
- Increased risk

2030

- Increased migration to agricultural area's and cities
- Increased wintering
- Increased risk

2100

- Considerably shift to food sources, wetlands, agricultural and cities
- Decrease seasonal migration
- Risks become local

Conclusion:

In next 20 year period: Severe increased risk due to increase of bird masses, bird migration and shift to human food and housing area's.

RISK increases



- Aviation doubles
- At present safety levels will the number of wildlife strikes increase
- Increased wildlife mass near airports
- Increased airborne movements
- Increase of numbers

Conclusion

By unchanged policy: Risk to passengers will increase considerably due to increased numbers (likelihood) and increased severity (mass).



ALARP



EASA's Safety Risk Management definition of ALARP:

“ Showing that the safety risk is ALARP means that any further risk reduction is either impracticable or grossly outweighed by the cost”.

- **What is impracticable in reducing the wild life strike risk?**
- **What are the costs involved?**

Conclusion

Insight in costs associated with wild life strikes and the costs of prevention measures is required



Conclusions



- The bird/wildlife strike risk is complex:
- Aviation CANNOT solve / reduce the risk alone.
- Risk reduction goes well beyond ICAO.



Conclusion:

A multi disciplinary international / inter regional collaboration with **non-aviation** stakeholders is
ESSENTIAL:



COOPERATION



Coordinate, Facilitate, Stimulate, Motivate the collaboration and cooperation

- **International & Inter-Regional**
- **Aviation** Stakeholders
- **Non-aviation** stakeholders (e.g. **agricultural, Ecology, Environment, etc.**)
- **Non-civil** aviation stakeholders (Military, Training, etc.)



A Gap that the WBA tries to overcome





World Birdstrike Association

- Non Profit organization; privately funded
- Only volunteers from all over the world
- No remunerations; very, very low cost structure enabling commitment from all over the world.

Goal (constitution act)

Be a catalyst to improve flight safety by reducing the wild life strike risk at a cost effective way, considering the need for sustainable environment





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The mission of the WBA is to facilitate

1. a platform for the national bird/wildlife strike committees and other entities, civil and military.
2. a platform for pursuing a constructive and cooperative relationship with all stakeholders.
3. a worldwide forum for the reduction of the bird/wildlife strike risk to aviation.



WBA



World
Birdstrike
Association



Together for birds and people

Memory of Understanding
Birdlife International
and
the World Birdstrike Association



WBA



The International Federation of Air Line Pilots' Associations



IFALPA
The Global Voice of Pilots

Letter of Understanding

between

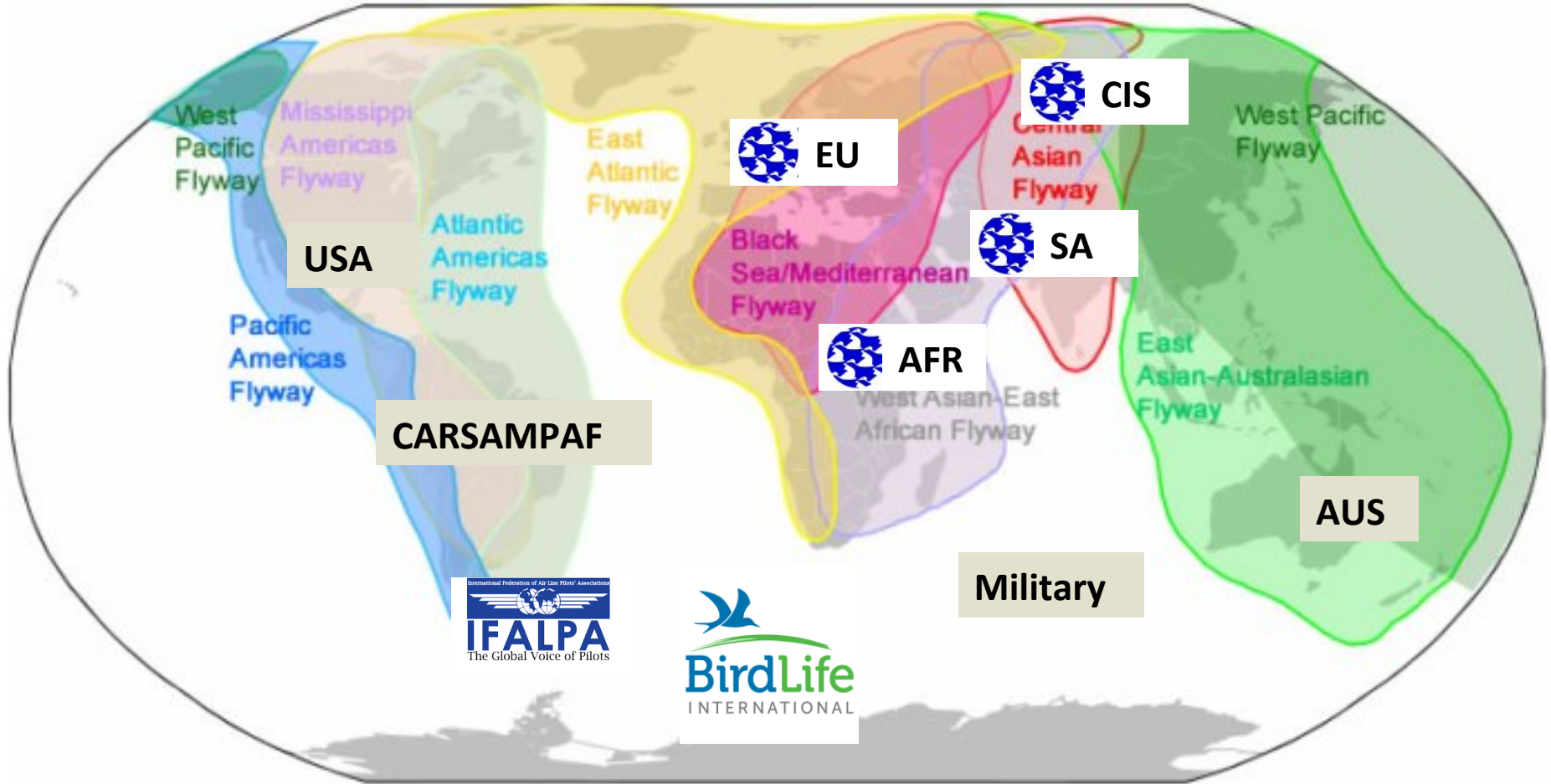
The International Federation of Air Line Pilots' Associations (IFALPA)

and

The World Birdstrike Association (WBA)



WBA CONNECTING



The challenges



- International / Inter regional multidisciplinary structured collaboration.
- Inter regional / global BSC's collaboration.
- MOU's and / or letters of intend with: ACI, IATA, CANSO, Manufacturers, Industry, UN, FAO etc.
- Active support by ICAO



Memory of Understanding
Birdlife International
and
the World Birdstrike Association



Our proposal



- Commitment to work together
 - aviation stakeholders; step 1 and
 - step 2 with non-aviation stakeholders on global level
- BSC's in a global BSC platform;
- Stakeholders active involvement in a Global Action Plan (Including non-aviation);
- Active support (facilities, financial, manpower, network and expertise.)



WBA ambition



- Facilitate stakeholders collaboration on regional level;
- Facilitate regional cooperation of BSC's;
- Develop synergy between stakeholders, aviation and non-aviation;
- Facilitate a global network

- Very low cost, non-profit conferences, allowing participation and exchange of information for All.
- Help for those needing help
- Easy sharing of knowledge, and expertise
- Free exchange of Data



Thank you



World
Birdstrike
Association

Can we count on YOU?

<http://www.worldbirdstrike.com>

Thank you.

