



ESSI update for EARPG#2/09

01-02 Jul 09

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European Strategic Safety Initiative (ESSI)

- ➔ 10 year programme (2006-2016) aimed at improving aviation safety in Europe, and for the European citizen worldwide
- ➔ Partnership, with more than 150 organisations
- ➔ **Powered by industry and facilitated by EASA**
- ➔ In line with the Global Aviation Safety Road.

www.easa.europa.eu/esssi

Welcome to the minisite of the European Strategic Safety Initiative!

The European Strategic Safety Initiative (ESSI) is an aviation safety partnership between EASA, other regulators and the industry. The initiative's objective is to further enhance safety for citizens in Europe and worldwide through safety analysis, implementation of cost effective action plans, and coordination with other safety initiatives worldwide. Participants are drawn from the EASA Member States, the ECAC countries, manufacturers, operators and professional unions, research organisations, the EAA and international organisations such as EUROCONTROL and ICAO.

ESSI was launched by EASA as a ten year programme on 20 June 2006 and has three components:

- ECASST: European Commercial Aviation Safety Team
- EHESST: European Helicopter Safety Team
- EGASST: European General Aviation Safety Team

In total, more than one hundred fifty civil and military organisations are participating to date in the (ESSI).

More detailed information can be found in the [ESSI presentation](#), attached, and in the [ICAO Information Paper A/36-WP/195-TE/SS](#) and the [EASA Annual Safety Review 2006](#) published in 2007.

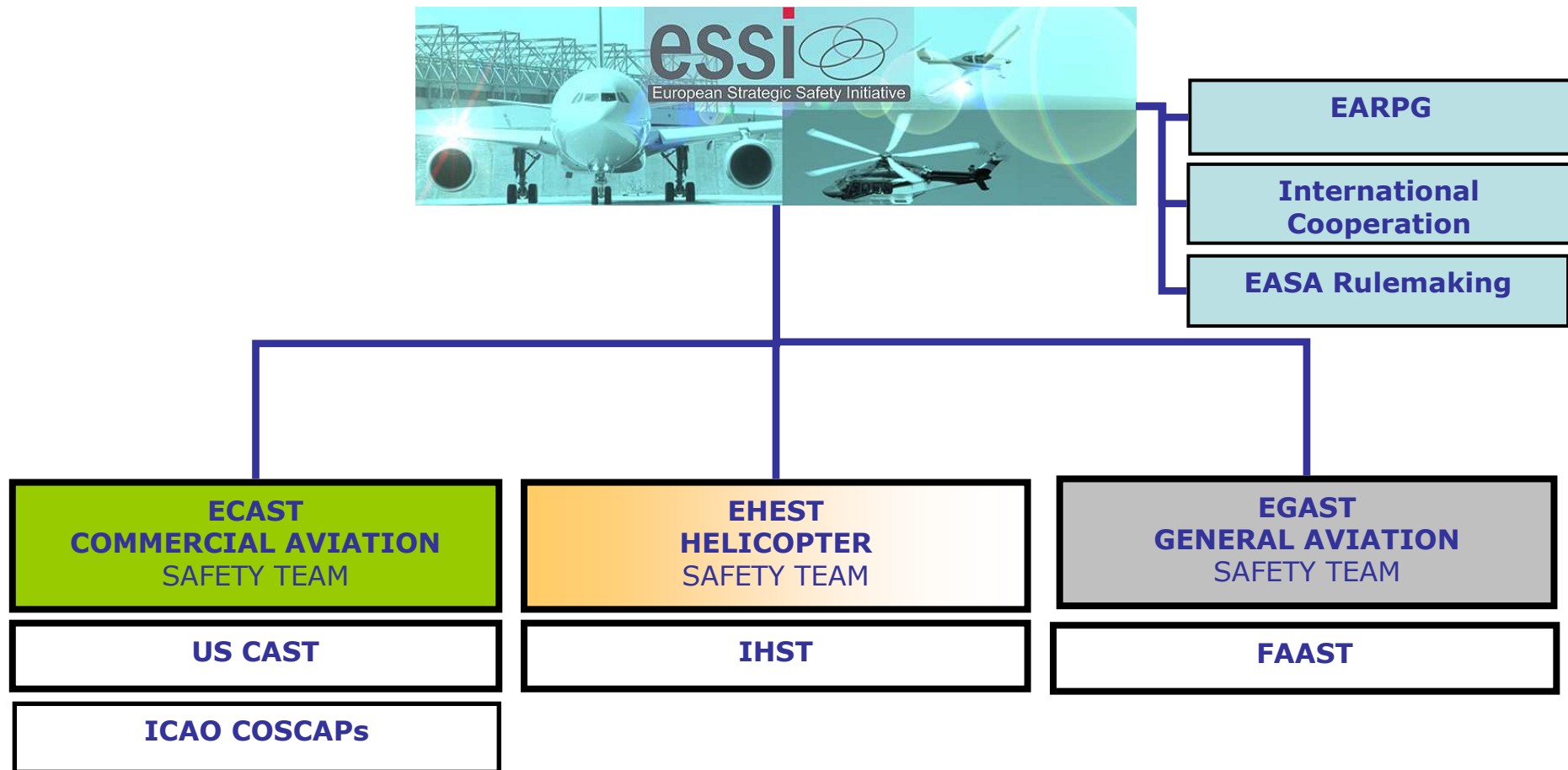
For further information, or if your organisation wishes to join the ESSI, please contact Michel Masson, ESSI Secretary, at the following email address: esssi@easa.europa.eu

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***“the partnership to enhance
Commercial aviation,
Helicopter and General
Aviation safety in Europe”***

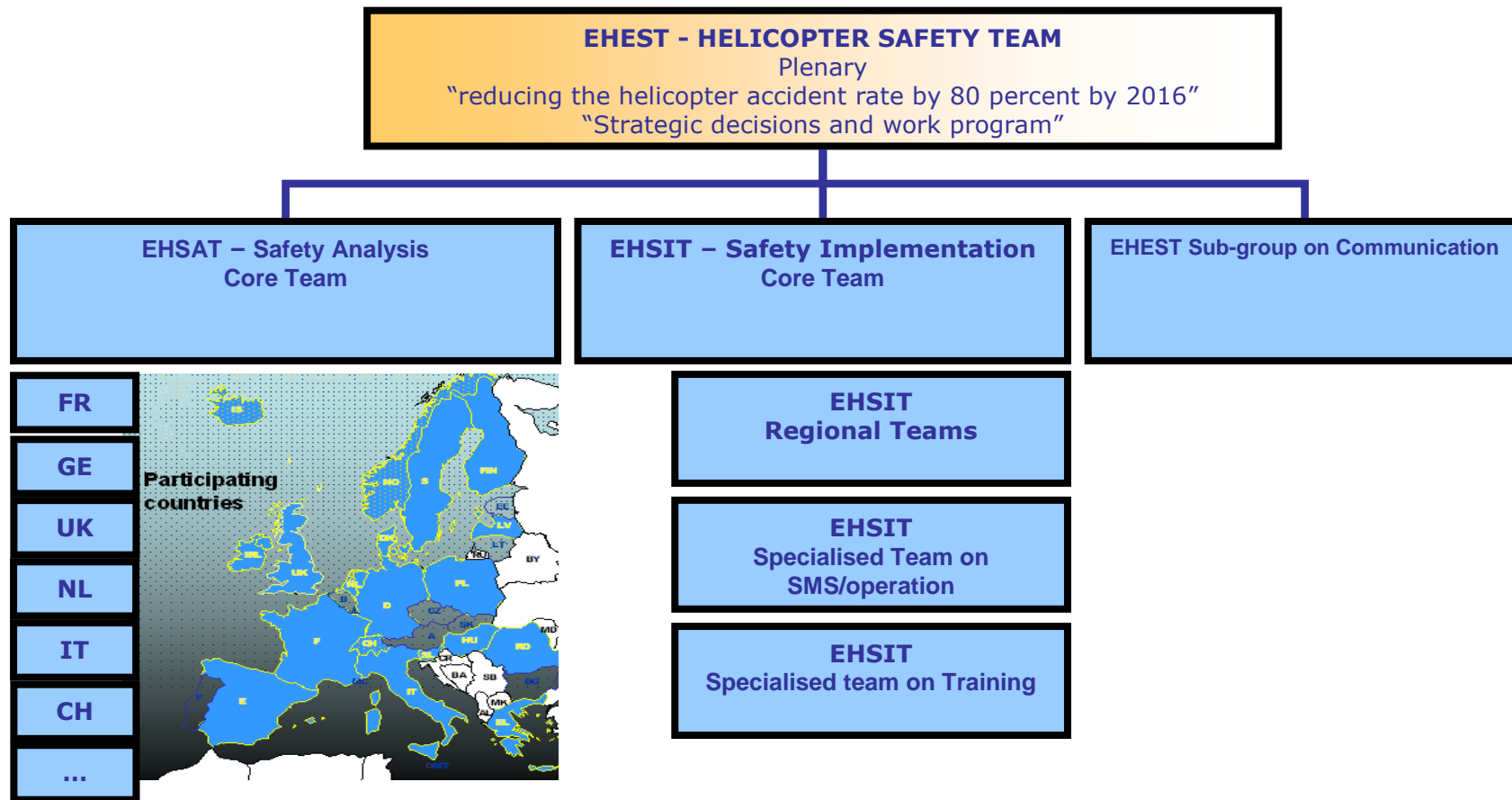


General structure and cooperation





Example of EHEST organisation





EHEST - Examples of Implementation Recommendations

- ➔ **Implementation Recommendations are based on the analysis of 380+ helicopter accidents reports**
- ➔ **Traceability between the initial occurrence, the report, the safety analysis, and the recommendation are kept.**
- ➔ **Example of Research IRs:**
 1. Research and training to develop for improving psychologic follow up of pilots during their career. Keep permanently in mind a systematic doubt strategy.
 2. Research is required into improving tail rotor Foreign Object Damage tolerance and to improve the tolerance of tail boom structures to the severe vibration created by such damage.
 3. Complete ongoing research programme into safe limits of helideck movement for all helicopters operating offshore.



ECAST Work Priorities

1. Ground Safety
2. Runway Safety
3. Safety Management System & Safety Culture
4. Flight Crew Performance
5. Loss of Control
6. Approach & Landing
7. Aviation System Complexity
8. Fire, Smoke and Fumes
9. Air-Ground Communications
10. Mid Air Collision
11. Controlled Flight Into Terrain
12. Icing
13. Bird Strike
14. Loss of Control due to Weight & Balance
15. Air Navigation



WP 1 - Review current SMS/Safety Culture initiatives and materials, Definition of Safety Culture
WP 2 - Identify best practices and examples of organisations
WP 3 - Hazard Identification
WP 4 - Risk Assessment



ECAST Ground Safety

→ Targeted topics

1. Training
2. Human Factors



→ Human Factors in ground handling

Study conducted by NLR-ATSI (A. Balk) for MoT-NL (J. Bossenbroek).

Investigate human factors in Ground Handling

Identify potential improvements, including in Training

→ HF identified by ECAST as potential topics for EARPG

Expand study ground from NL to Europe



The European General Aviation Safety Team

Objective:

“EGAST will promote and initiate for all sectors of General Aviation best practices and awareness in order to improve safety, thereby reducing the accident rates.”

3 Priorities:

- Safety Promotion**
- Prospective Safety**
- Data Collection**



European General Aviation Safety Team

1. Safety promotion:

To promote aviation safety and technical proficiency by providing guidance, support and education through quality presentations and videos available to the entire aviation community

Focus on risk awareness, decision making enhancement for pilots

In cooperation with IASA France, UK CAA, FFAST-US, etc.

2. Proactive Safety

Identification of emerging and future risks for GA

In cooperation with FAST (Team associated to ECAST)



European General Aviation Safety Team

3. Facilitate General Aviation Safety data collection in Europe

Covers aspects such as number of aircraft, number of flight hours or movements, numbers and rates of accidents, risks

Data warehouse project contracted to NLR

Cooperation initiated with EUROSTAT

Investigate to apply to FP7 3rd Call



European Strategic Safety Initiative

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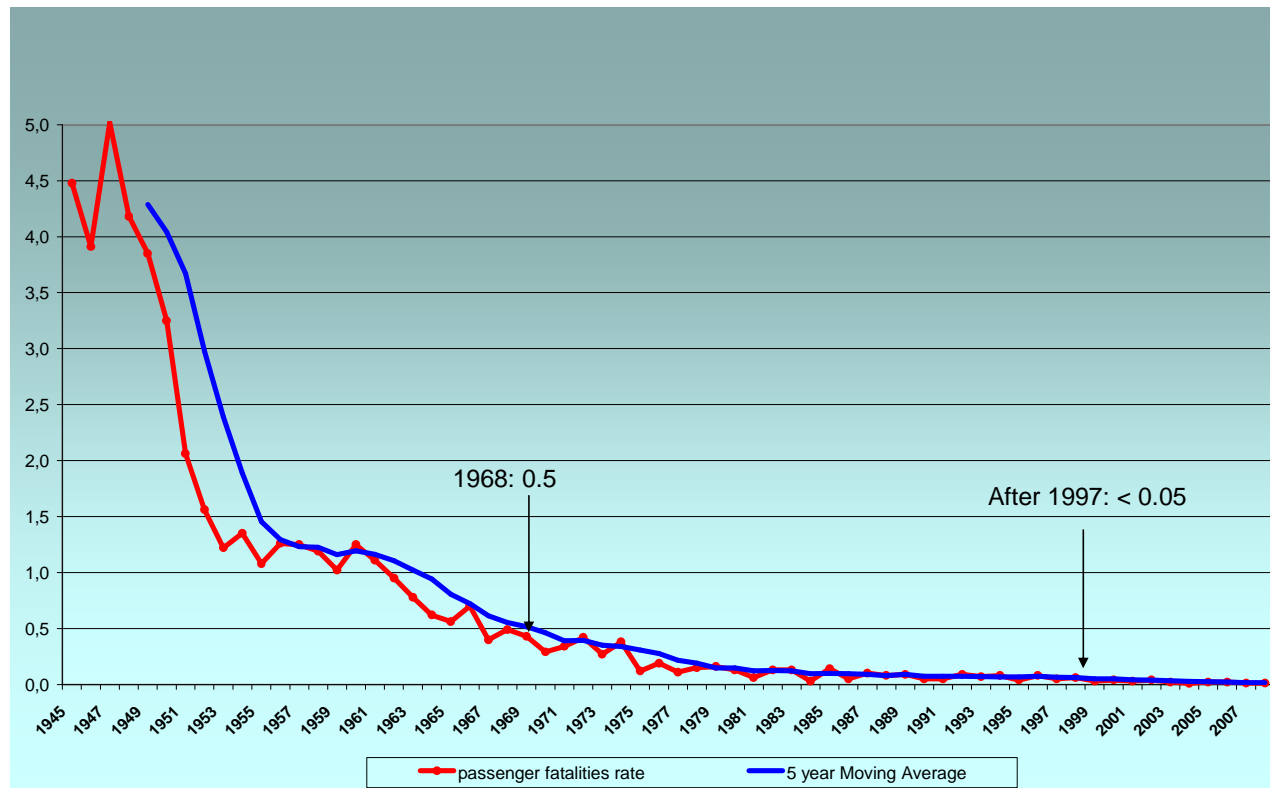


Additional Slides

ECAST related



Preview EASA Annual Safety Review 08 Commercial Air Transport - Aeroplanes

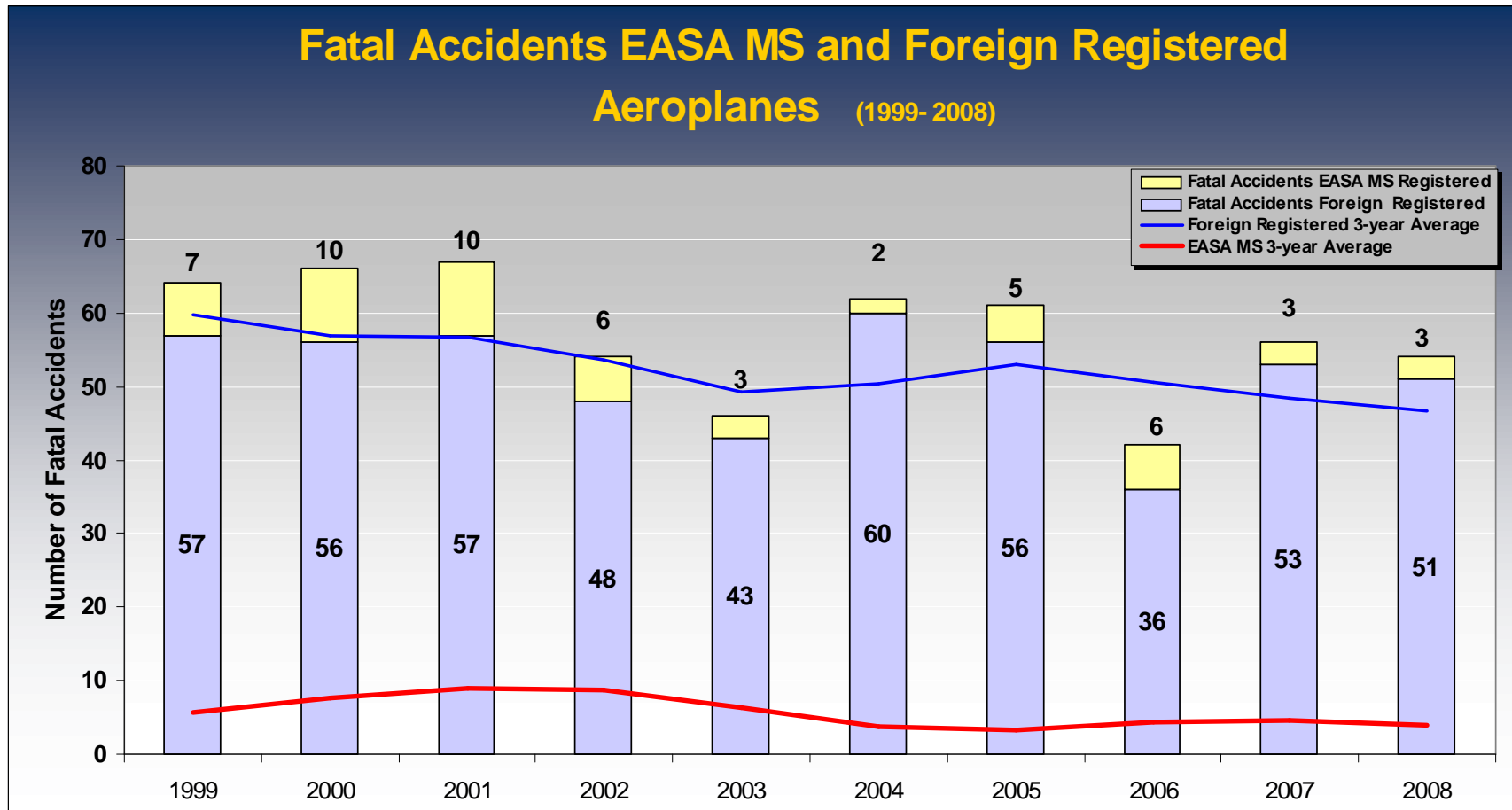


Global passenger fatalities per 100 million passenger miles, scheduled commercial transport operations, excluding acts of unlawful interference (1945-2008)



Preview EASA Annual Safety Review 08

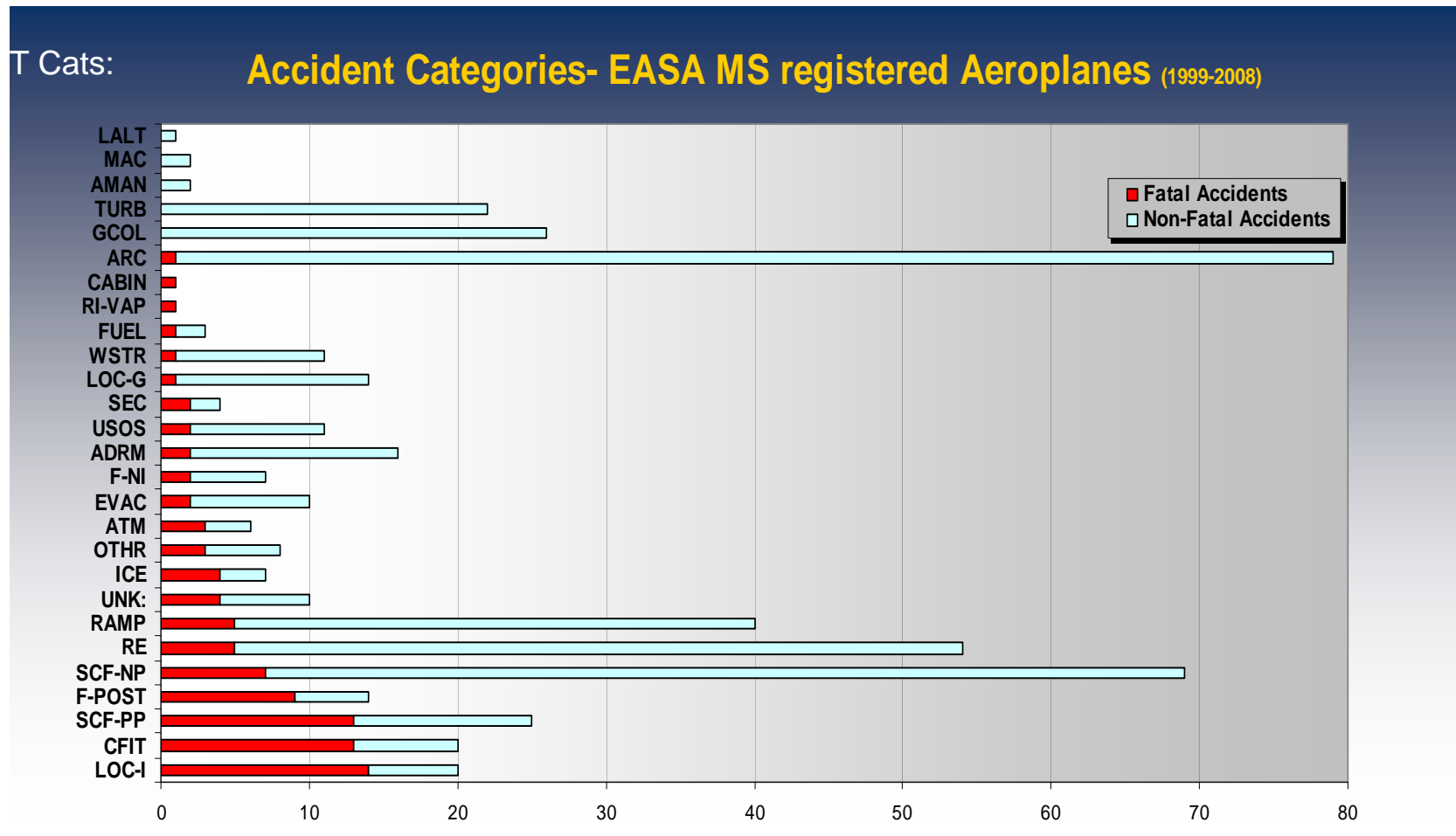
Commercial Air Transport - Aeroplanes





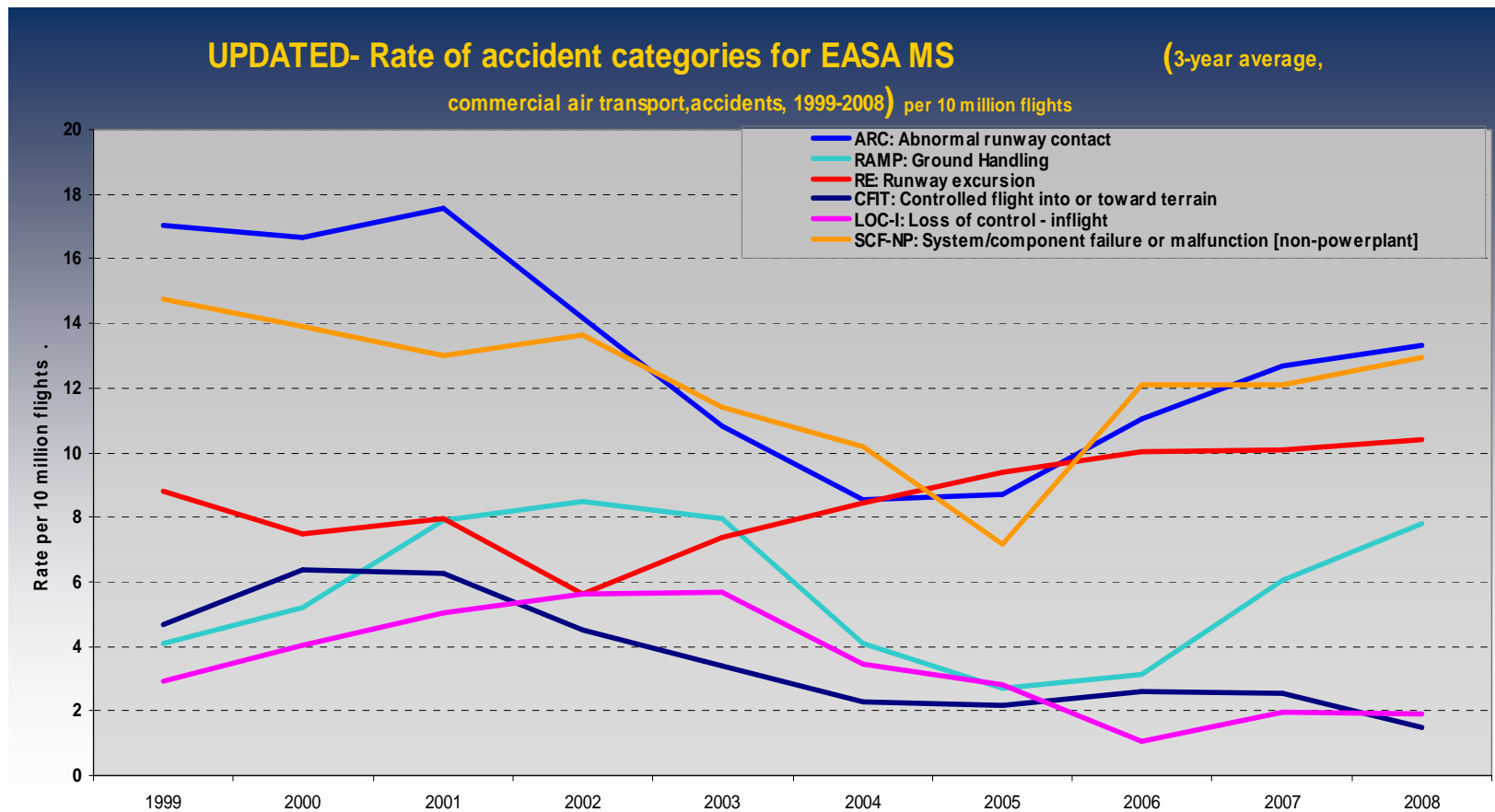
Preview EASA Annual Safety Review 08

Commercial Air Transport – Aeroplanes EASA MS





Commercial Air Transport- Accident Categories EASA MS



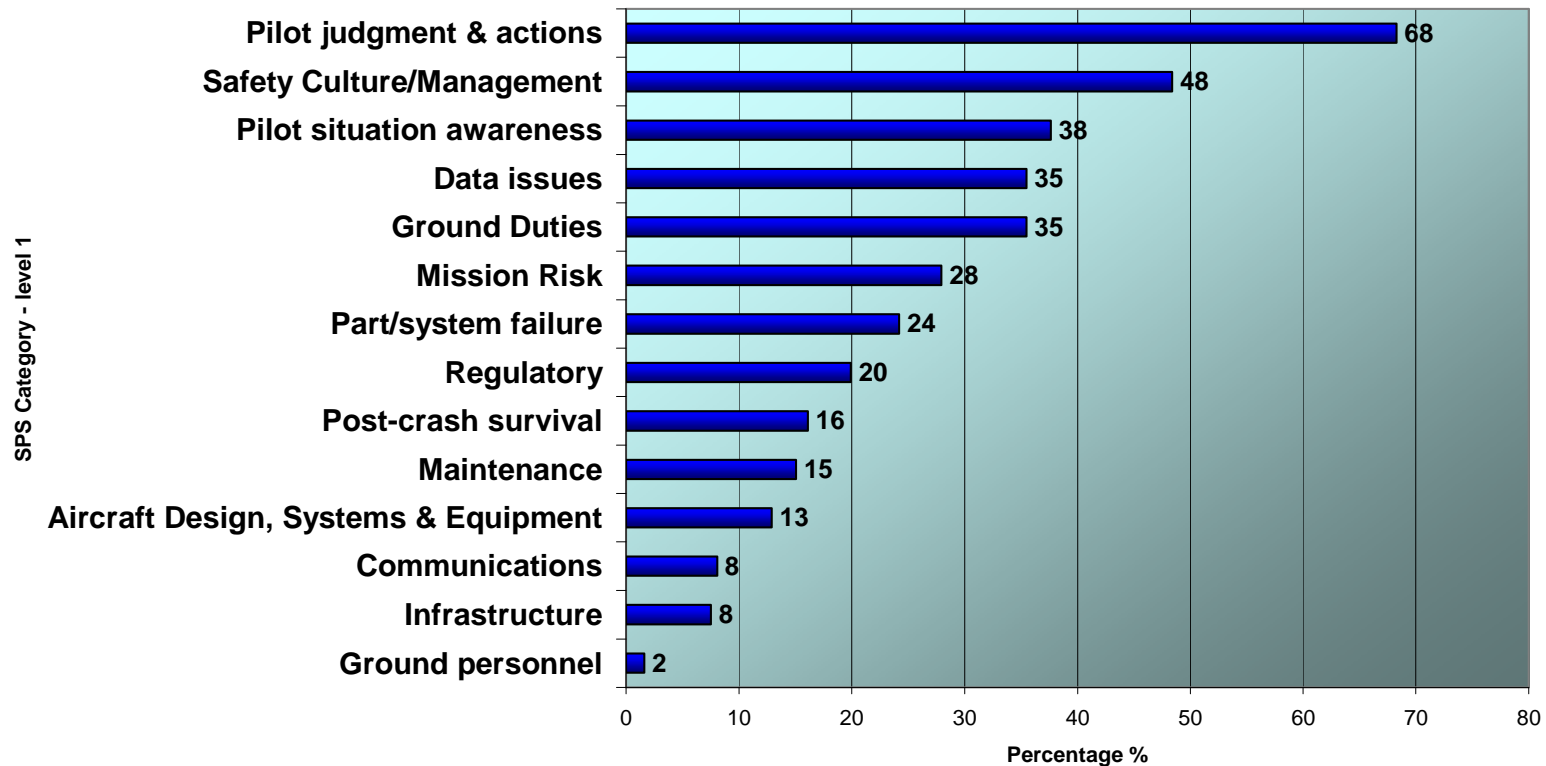


EHEST related



EHSAT Analysis 2008: Standard Problem Statements level 1 – All Accidents

Percent of Accidents in which SPS category (level 1)
was identified at least once





Commercial Air Transport (Helico)

Top issues – Commercial Air Transport	
Top issues Standard Problem Statements	Top issues HFACS
Pilot decision making	Brownout/whiteout
Pilot-in-Command self induced pressure	Decision-making during operation
Pilot's flight profile unsafe for conditions	Communication critical information
Reduced visibility – whiteout, brownout	Pressing
Pilot inexperienced with area and/or mission	Risk assessment – during operation
Pilot experience leads to inadequate planning regarding weather/wind	Procedural error
Selection of inappropriate landing site	Excessive motivation to succeed
Management disregard of known safety risk	Mission planning
Inadequate consideration of aircraft operational limits	Inattention
Failure to enforce company SOPs	Limited recent experience
	Procedural guidelines/publications

*Table 1 - Top issues for Helicopter Commercial Air Transport operations
 (Excluding factors related to Data Issues)*



Aerial Work (Helico)

Top issues – Aerial Work		
Top issues Standard Problem Statements		Top issues HFACS
Mission involves flying near hazards, obstacles, wires		Risk assessment - during operation
Pilot decision making		Channelised attention
Mission requires low/slow flight		Mission planning
Low flight near wires		Decision-making during operation
Inadequate consideration of obstacles		Error due to misperception
Diverted attention, distraction		Inattention
Risk management inadequate		Misperception of Operational Condition
Inadequate response to loss of tail rotor effectiveness		Excessive motivation to succeed
Inadequate training on avoidance, recognition and recovery of vortex ting state or LTE		Fatigue – Physiological/Mental
		Windblast
		Overconfidence
		Limited total experience

*Table 2 - Top issues for Helicopter Aerial Work operations
 (Excluding factors related to Data Issues)*



General Aviation (Helico)

Top issues – General Aviation	
Top issues Standard Problem Statements	Top issues HFACS
Pilot decision making	Risk assessment - during operation
Mission planning –other	Overconfidence
Inadequate consideration of weather/wind	Vision restricted by meteorological conditions
Pilot inexperienced	Procedural error
Pilot control/handling deficiencies	Mission planning
Pilot misjudged own limitations/capabilities	Decision-making during operation
External environment awareness – Other	Overcontrol/Undercontrol
Disregard of known safety risk	Violation – Lack of discipline
Failed to recognise cues to terminate current course of action or manoeuvre	Inadvertent Operation
	Error due to misperception
	Channelised attention
	Get-Home-Itis/Get-There-Itis
	Misperception of operational condition

*Table 3 - Top issues for Helicopter General Aviation operations
 (Excluding factors related to Data Issues)*

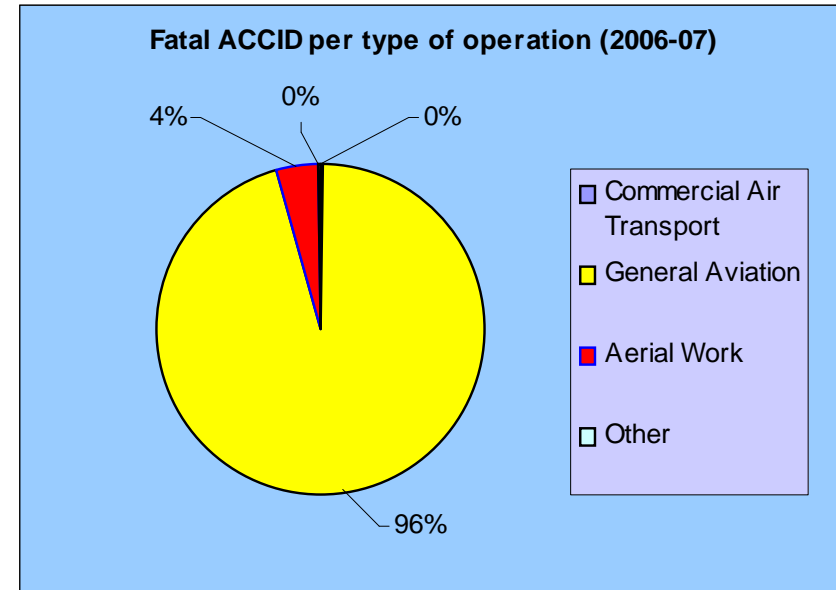
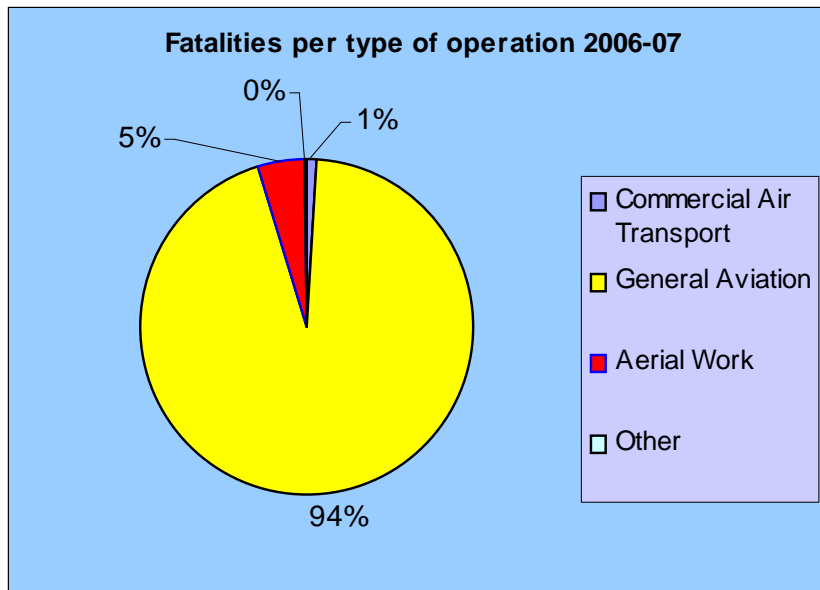


EGAST related



Preview EASA Annual Safety Review 08 General Aviation

Years 2006 and 2007

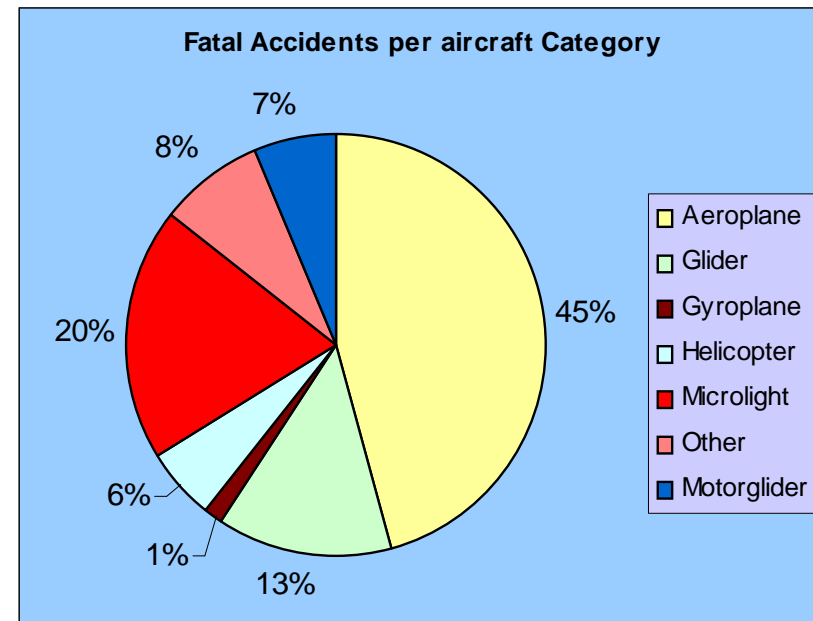
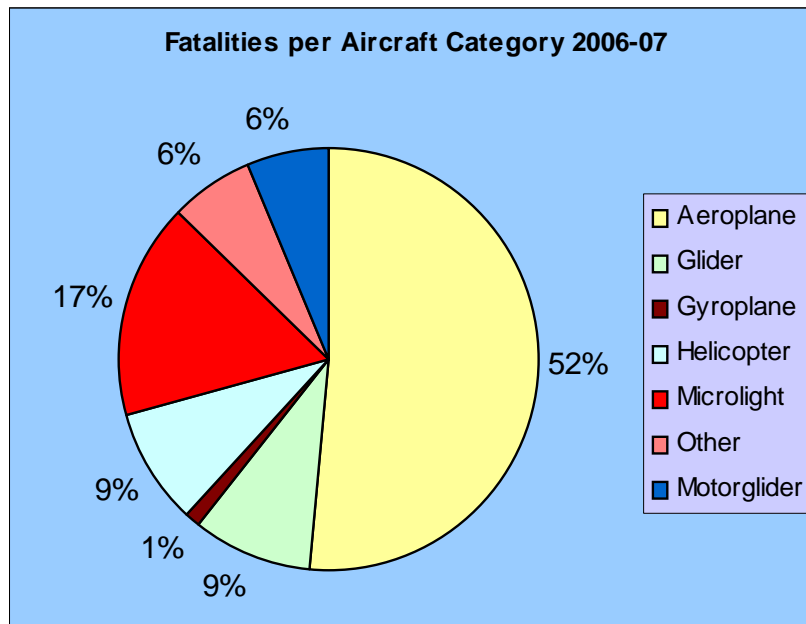


These figures may be revised



Preview EASA Annual Safety Review 08 General Aviation

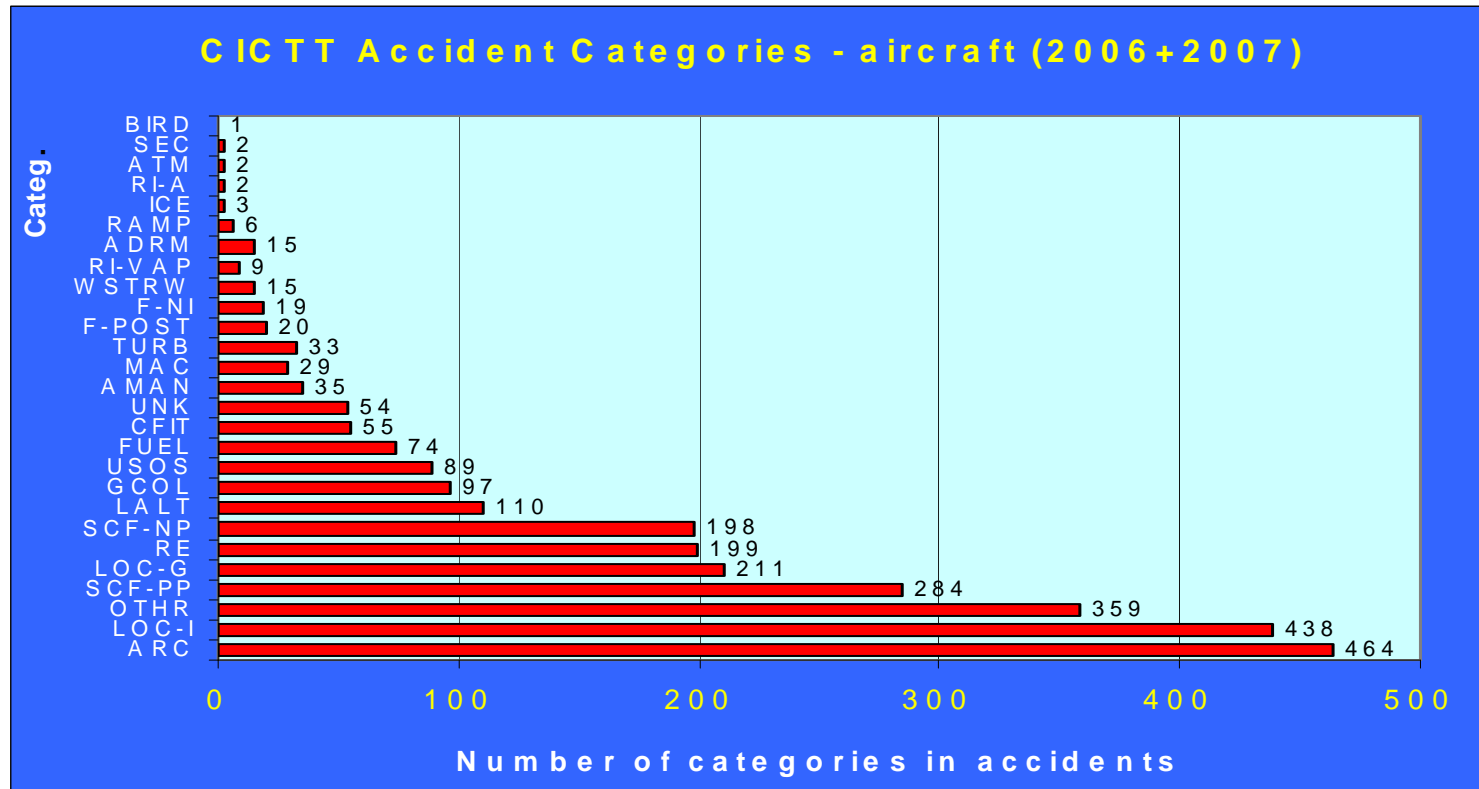
Years 2006 and 2007



These figures may be revised



Preview EASA Annual Safety Review 08 General Aviation

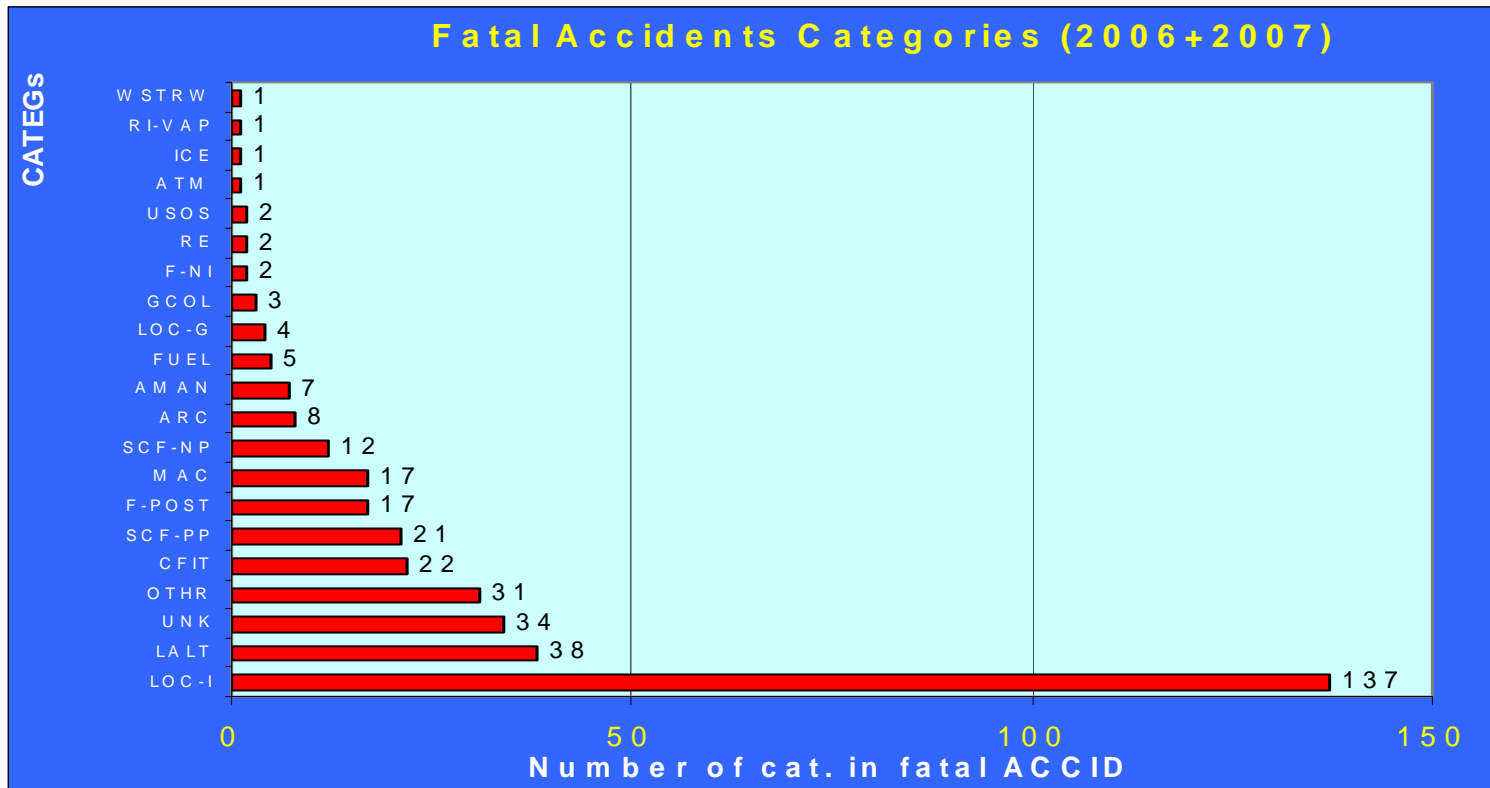


“ARC” and “LOC-I” are the main categories in Accidents

These figures may be revised



Preview EASA Annual Safety Review 08 General Aviation



“LOC-I” is by far the main category in Fatal Accidents

These figures may be revised