European Aviation Safety Agency
Agence Européenne de la Sécurité Aérienne
Europäische Agentur für Flugsicherheit

ANNUAL SAFETY REVIEW 2005

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INTRODUCTION

The safety review for the year 2005 is the first Annual Safety Review compiled by the European Aviation Safety Agency to inform the public of the general safety level in the field of civil aviation as required by Article 11 (4) of Regulation (EC) No 1592/2002 of the European Parliament and of the Council of 15 July 2002.

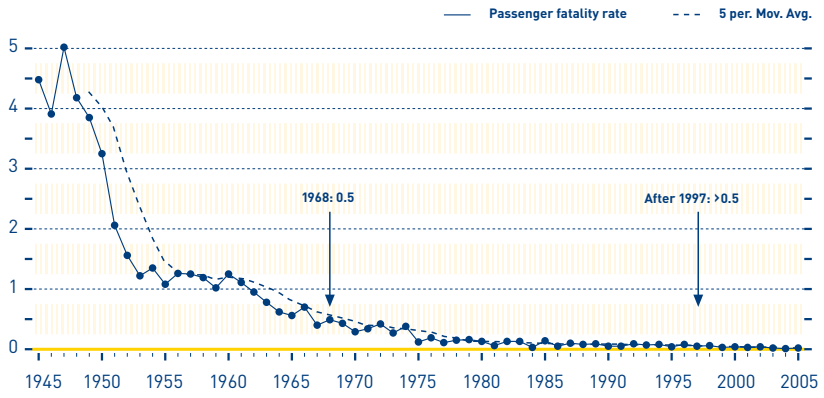
The scope of future reviews will be adapted to safety issues and enhanced as data sources become available. In preparation of this review, the Agency had access to accident information collected by the International Civil Aviation Organisation (ICAO) through its Accident/Incident Data Reporting (ADREP) system as well as accident statistics published by ICAO.

1.0 HISTORICAL DEVELOPMENT OF AVIATION SAFETY

Since 1945, ICAO has been publishing accident rates for accidents involving passenger fatalities (excluding acts of unlawful interference with civil aviation) for scheduled operations. The graphs below are based on these ICAO accident rates.

GRAPH 1:

PASSENGER FATALITIES PER 100 MILLION PASSENGER MILES, SCHEDULED OPERATIONS, EXCLUDING ACTS OF UNLAWFUL INTERFERENCE

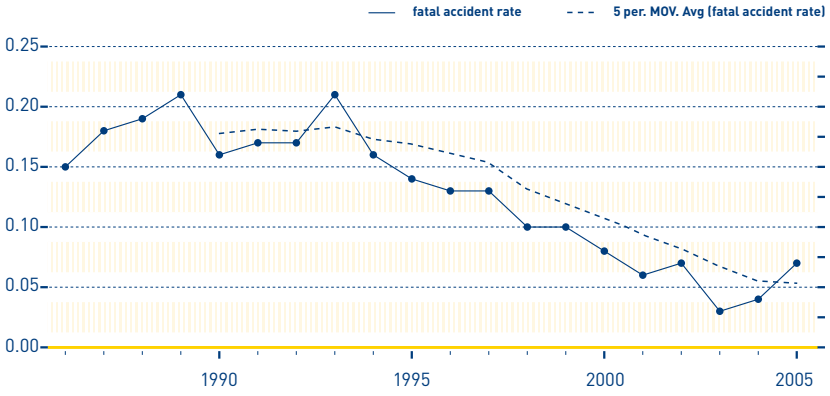


The data show that the safety of aviation has improved from 1945 onwards. Based on the measure of passenger fatalities per 100 million miles flown, it took some 20 years (1948 to 1968) to achieve the first ten-fold improvement from 5 to 0.5. Another ten-fold improvement was reached in 1997, some 30 years later, when the rate had dropped below 0.05.

The accident rate on this graph appears to be flat for recent years. This is the result of the scale used to reflect the high rates in the late 1940s. A review limited to a more recent time frame highlights the improvements achieved from 1993 onwards.

GRAPH 2:

RATE OF ACCIDENTS INVOLVING PASSENGER FATALITIES PER 100 000 FLIGHTS, SCHEDULED OPERATIONS, EXCLUDING ACTS OF UNLAWFUL INTERFERENCE



The rate of accidents involving passenger fatalities in scheduled operations per 100.000 flights varied from 0.15 (1986) to 0.21 (1993) and showed no improvement from 1986 to 1993. From that year, the rate dropped continuously until 2003, where it reached its lowest value of 0.03. Since then, resulting from the increase in the number of accidents, it rose again to 0.07 in 2005, back to a level already reached in 2002. Taking the values at the extremes, the rate of accidents involving passenger fatalities in scheduled operations has dropped by about half from 1986 to 2005.

2.0 WORLD SAFETY 1996 – 2005

2.1

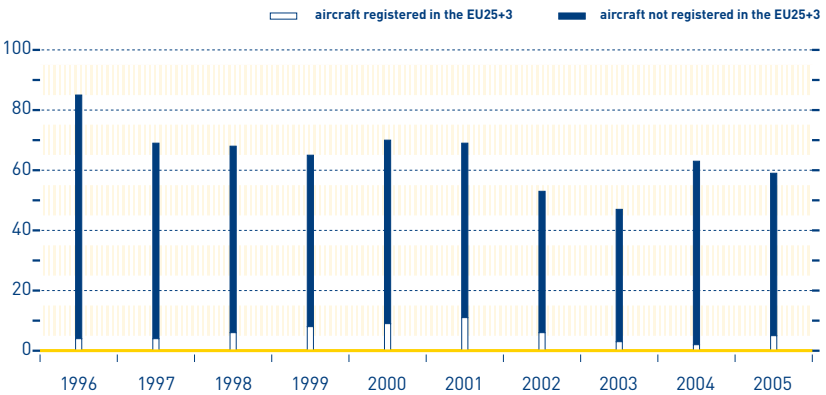
The number of accidents provided in this part of the report is based on data obtained from the ICAO Accident/Incident Data reporting (ADREP) system. They concern fatal accidents to fixed wing aircraft with a maximum certificated take-off mass exceeding 2250 kg. A fatal accident is an accident that resulted in at least one fatality, flight crew and/or passenger or on the ground, within 30 days of the accident. Note that in the graphs the number of fatal accidents to aircraft registered in States of the European Union plus Iceland, Norway and Switzerland (EU25+3) is at the bottom of the bars.

2.2

In the decade 1996–2005, the average number of fatal accidents to fixed wing aircraft in public transport operations was 64.7. The number of fatal accidents in 2005 (59) is lower than that of the previous year 2004 (63). This number is, however, higher than the number for 2003, (47) which was the lowest in the decade 1996 to 2005.

GRAPH 3:

FATAL ACCIDENTS, PUBLIC TRANSPORT OPERATIONS,
FIXED WING AIRCRAFT OVER 2250 KG MAX CERTIFICATED TAKE-OFF MASS

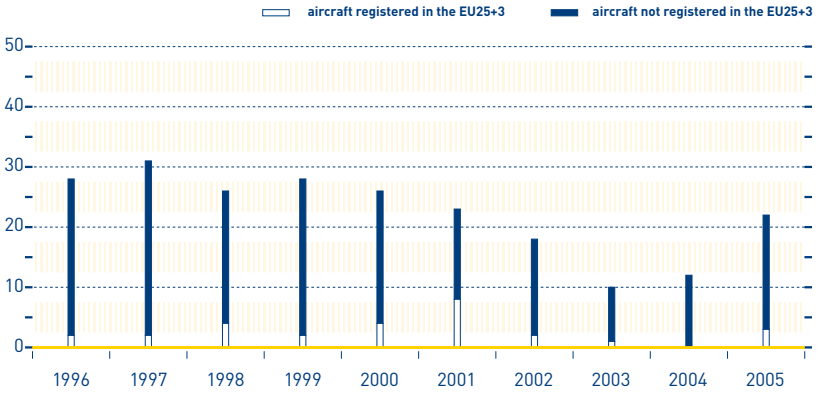


2.3

Considering only scheduled public transport operations, the number of fatal accidents in 2005 was 22, up from 12 in the year 2004 and 10 in the year 2003. The result is just below the average for the decade, 22.4 and lower than any of the results of the years 1996 to 2001.

GRAPH 4:

FATAL ACCIDENTS, SCHEDULED PUBLIC TRANSPORT OPERATIONS,
FIXED WING AIRCRAFT OVER 2250 KG MAX CERTIFICATED TAKE-OFF MASS

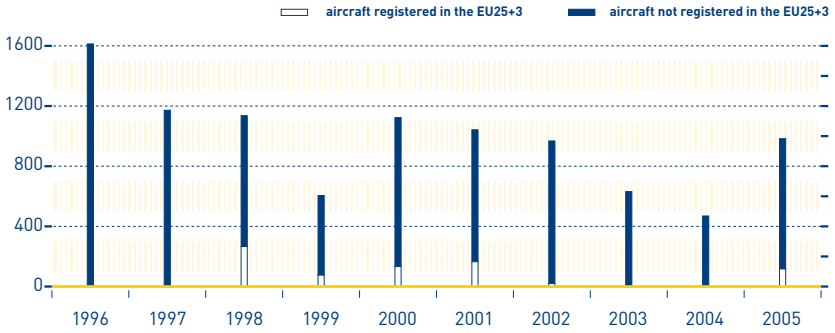


2.4

The number of passenger fatalities in accidents to fixed wing aircraft increased from 469 in 2004 to 983 in 2005. The average for the last decade was 974.2 and only in four years (1999: 605, 2002: 968, 2003: 631, 2004: 469) was the number lower than in 2005. Note: This number does include passenger fatalities resulting from acts of unlawful interference with civil aviation.

GRAPH 5:

PASSENGER FATALITIES, PUBLIC TRANSPORT OPERATIONS,
FIXED WING AIRCRAFT OVER 2250 KG MAX CERTIFICATED TAKE-OFF MASS



2.5

Based on the data, it would appear that any perception of a decline in aviation safety in 2005 was not as much caused by the absolute numbers of fatal accidents or fatalities, which are about average for the last decade, but rather by the increases from the previous two years. For instance, in 2004, the number of passenger fatalities, scheduled public transport operations, excluding acts of unlawful interference with civil aviation, was 203, the lowest since 1945 while there were 713 passenger fatalities in scheduled public transport operations in the year 2005.

2.6

Notwithstanding the increase in the number of accidents in 2005, the safety of civil aviation of the world, in terms of the number of fatal accidents, has been improving over the last decade. There are, however, concerns: much of the improvement over the last decade resulted from the prevention of CFIT[1] type accidents, so much so, that this type of accident is no longer the leading cause of fatal accidents nor of fatalities.

[1] CFIT – Controlled flight into terrain – an in-flight collision with terrain, water, or obstacle without an indication of a loss of control.

With some 12 such accidents in 2005 (based on the initial categorisation), this category only represented some 20% of the number of fatal accidents, down from some 50% (43 out of 87) in 1996. Therefore, continuous efforts are needed to address remaining accident causes and make improvements to the aviation system.

3.0 EUROPEAN SAFETY 1996 – 2005

3.1

In the context of this review, the term Europe includes the States of the European Union plus Iceland, Norway and Switzerland. The region was assigned based on the State of Registry of the accident aircraft.

3.2

For Europe, the number of fatal accidents, fixed wing aircraft, public transport operations, in 2005 was 5, up from 2 in 2004 and below the average for the decade 1996–2005 of 5.8. The number of passenger fatalities in public transport operations in 2005 was 117, up from 4 in 2004 and 0 in 2003. The number of passenger fatalities was above the average (79.6) for the decade 1996 to 2005.

3.3

Out of the five fatal accidents in 2005, one, the accident on 14 August 2005 in Greece, accounted for 115 fatally injured passengers. The other passenger fatalities involved a passenger falling off an air stair (scheduled operation) and a small aircraft crashing into the sea (non-scheduled operation, 1 crew and 1 passenger fatally injured).

3.4

Other fatal accidents involved a crew member falling off the aircraft and a cargo aircraft crashing during an approach in a snow storm (2 crew members fatally injured, no passengers).

3.5

There was one fatal accident involving a helicopter in scheduled aviation which caused 12 fatalities. This accident is not included in the figures above.

IMPRINT

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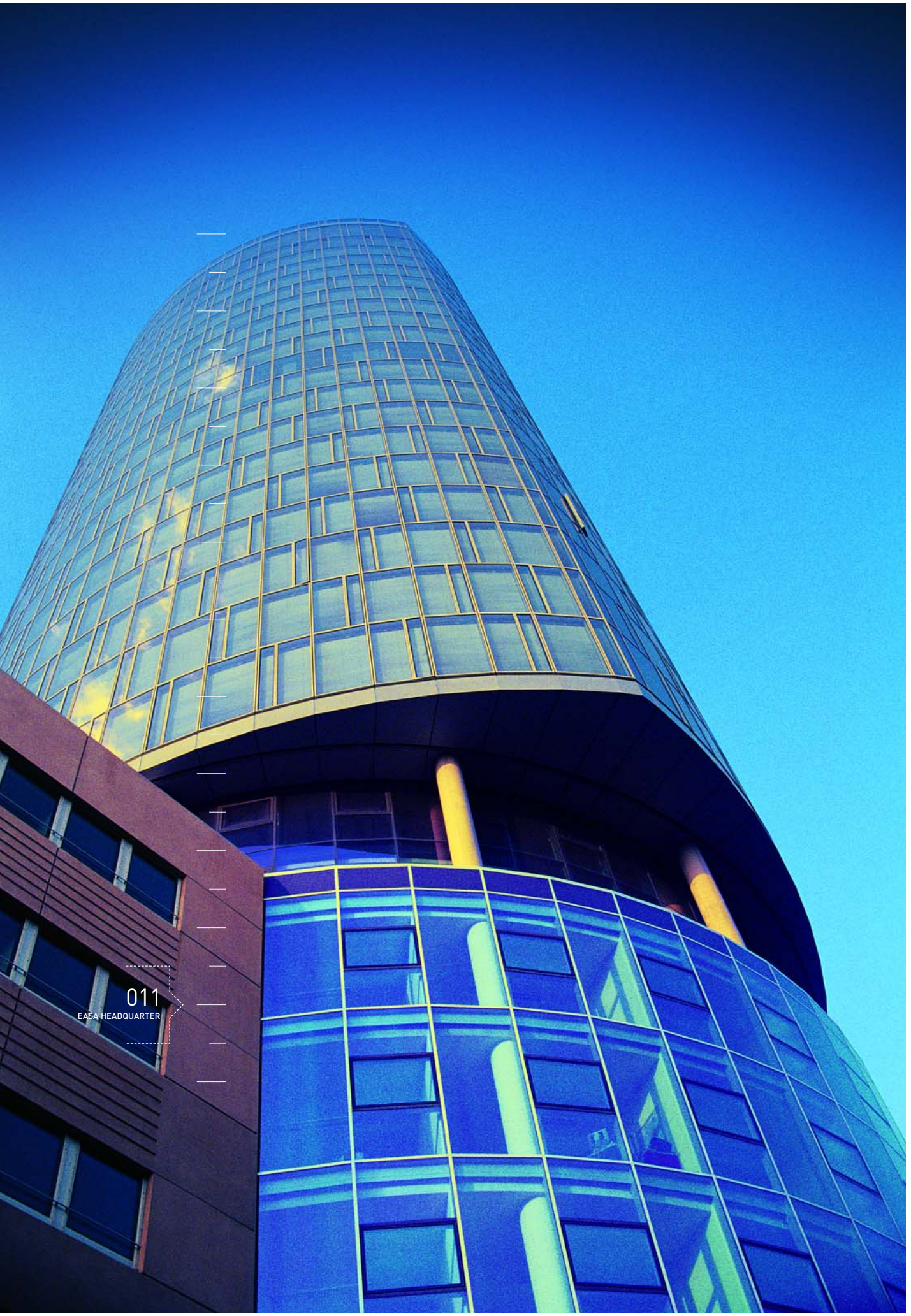

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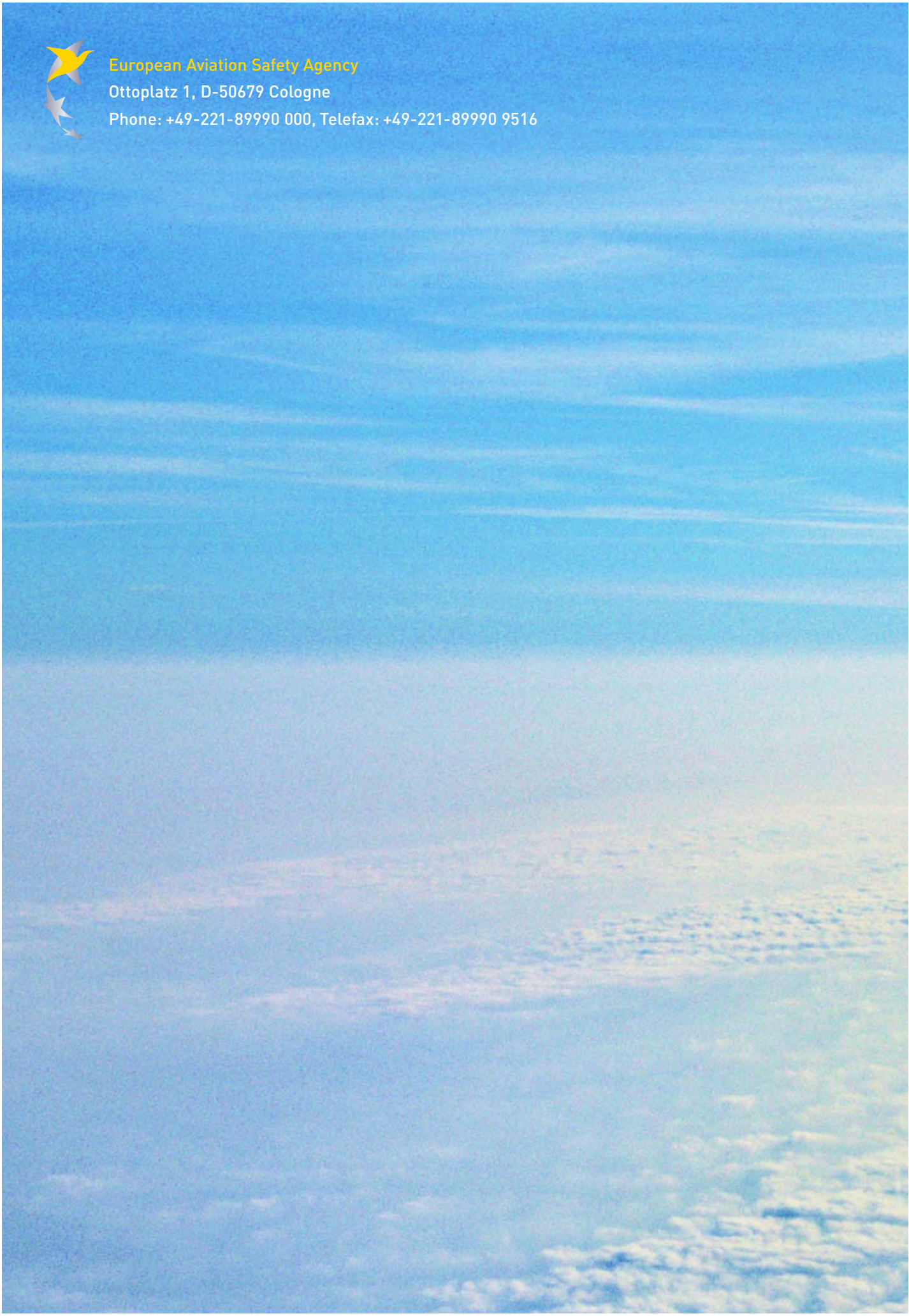
EASA HEADQUARTER



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