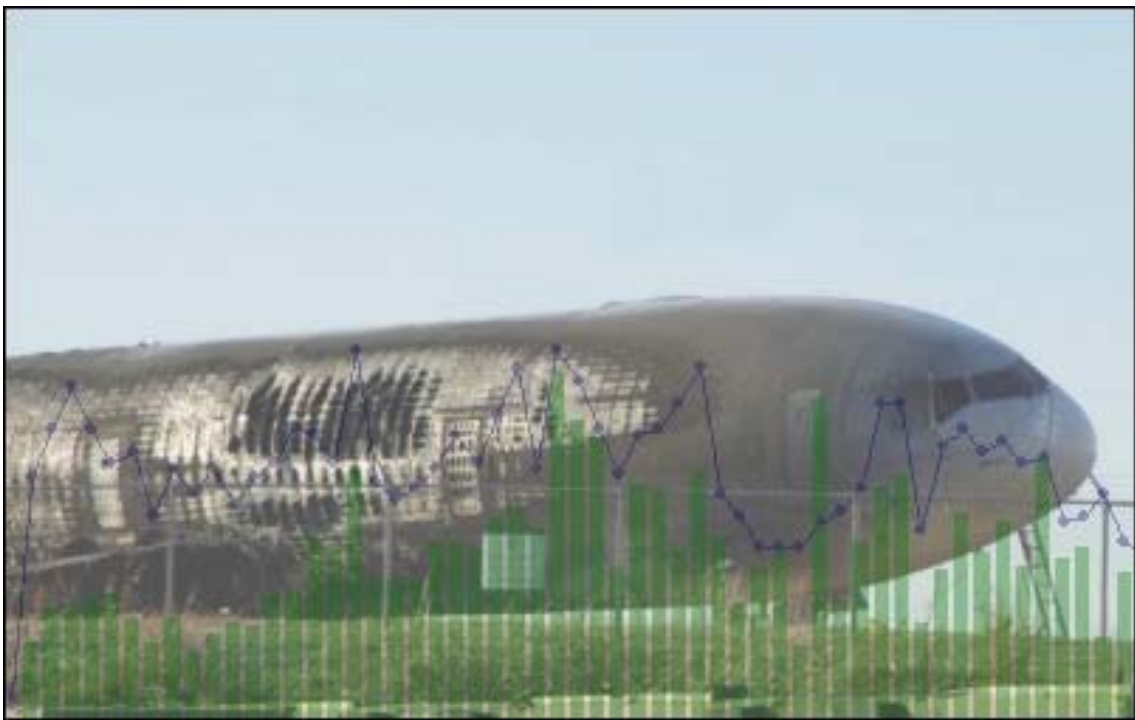


Airliner Accident Statistics 2005

Statistical summary of fatal multi-engine airliner accidents in 2005



Aviation**Safety**Network

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Statistical summary of fatal multi-engine airliner accidents in
2005

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front page photo: non-fatal MD-10 accident at Memphis, December 18, 2003 © Dan Parent, kc10.net

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SUMMARY

Over the year 2005 the Aviation Safety Network recorded a total of 35 fatal airliner accidents¹⁾, resulting in 1059 fatalities and 44 ground fatalities. Although the number of accidents was significantly lower than the ten-year average (40), the number of fatalities was almost equal to the 1995-2004 ten-year average. This was caused by the high number of accidents resulting in 100 or more fatalities.

The decreasing number of accidents is in line with the downward trend that started ten years ago.

The positive downward trend in accidents can be seen for North-, Central and South America, Asia and Australasia. Europe's steady decrease however was halted in 2005 at a 10-year average of 6,7 accidents.

Africa on the other hand remained the most unsafe continent with 13 fatal accidents (37%), while Africa only accounts for approximately 3 percent of all world aircraft departures.

The moving ten-year average trend shows an almost continuous increase in the average number of fatal accidents for the last eleven years.

Eleven fatal passenger flight accidents in 2004 was an all-time low. However, 2005 showed a marked increase to 21. Although still lower than the ten-year average, measures seem necessary to continue the trend.

Where in 2004 cargo planes were reason for concern, 2005 showed a remarkable decrease in cargo plane crashes to 8.

1) for definitions see the chapter "Scope and definitions"

The figures have been compiled using the airliner accident database of the Aviation Safety Network, the Internet leader in aviation safety information. The Aviation Safety Network uses information from authoritative and official sources like NTSB, ICAO etc. The goal of the Aviation Safety Network is to provide everyone with a (professional) interest in aviation with up-to-date, complete and reliable authoritative information on airliner accidents and safety issues.

More information: <http://aviation-safety.net/>

SCOPE & DEFINITION

The Aviation Safety Network's *Aviation Safety Database* (<http://aviation-safety.net/database/>) covers descriptions of over 12,200 airliner/corporate jet/military transport accidents, incidents and hijackings that have occurred since 1943. To be able to analyse data over a 60+-year period of time, and to ascertain that the core selection of data is complete, clear and distinctive criteria have to be defined. Thus, this analysis has been limited to airliner accidents using the following definitions:

Accident

"An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which a person on the airplane is fatally injured and the airplane is damaged beyond repair."

Airliner

"Commercial multi-engine airplane which, in certificated maximum passenger configuration, is capable of carrying 14 or more passengers."
A list of aircraft types covered can be found in Appendix 1.

2005: ACCIDENT SUMMARY

The year 2005 recorded 35 fatal airliner hull-loss accidents, causing 1059 fatalities and 44 fatalities on the ground.

A detailed description of each accident can be found in Appendix 2.

	Date	Aircraft type	Operator	Location	Fatalities
1	08 JAN	Antonov 12	Service Air	Bukalaza	6
2	13 JAN	Embraer 110	AirNow	Swanzy	1
3	27 JAN	Let 410	Farnair Hungary	near Iasi	2
4	03 FEB	Ilyushin 76	Air West, Co	near Khartoum	7
5	03 FEB	Boeing 737-200	Kam Air	near Kabul	104
6	22 FEB	DHC-6 Twin Otter	MAF	near Wobegon	2
7	16 MAR	Antonov 24	Regional Airlines	near Varandey	29
8	18 MAR	Canadair CL-415	SOREM/Protezione Civile	Versilia	2
9	23 MAR	Ilyushin 76	Airline Transport	off Mwanza	8
10	26 MAR	Let 410	West Caribbean Airways	near Providencia	8
11	12 APR	DHC-6 Twin Otter	GT Air	near Enarotali	17
12	20 APR	Boeing 707-300	Saha Air	Tehran	3
13	20 APR	Lockheed P-3B Orion	Aero Union	near Chico, CA	3
14	02 MAY	Swearingen Metro III	Airwork, NZ	near Stratford	2
15	05 MAY	Antonov 26	Kisangani Airlift	near Kisangani	10
16	07 MAY	Swearingen Metro 23	Aero-Tropics Air Services	near Iron Range	15
17	25 MAY	Antonov 12	Victoria Air	near Biega	27
18	02 JUN	Antonov 24	Marsland Aviation	Khartoum	5
19	16 JUL	Antonov 24	Equatorial Express Airlines	near Baney	60
20	01 AUG	Canadair CL-415	Securité Civile	near Calvi	2
21	06 AUG	ATR-72-200	Tuninter	off Palermo	16
22	14 AUG	Boeing 737-300	Helios Airways	near Grammatikos	121
23	16 AUG	MD-82	West Caribbean Airways	near Machiques	160
24	23 AUG	Boeing 737-200	TANS	near Pucallpa	40
25	05 SEP	Boeing 737-200	Mandala Airlines	Medan-Polonia	102+44
26	05 SEP	Antonov 26	Kavatshi Airlines	near Isiro-Matari	11
27	09 SEP	Antonov 26	Air Kasai	near Brazzaville	13
28	04 OCT	Antonov 12	Wimbi Dira Airways	Aru	2
29	22 OCT	Boeing 737-200	Bellview Airlines	near Lagos	117
30	30 OCT	Let 410	Trade Air	Bergamo	3
31	11 NOV	Ilyushin 76	Royal Airlines Cargo	near Kabul	8
32	10 DEC	DC-9-30	Sosoliso Airlines	Port Harcourt	108
33	19 DEC	Grumman G-73	Chalk's Ocean	Miami, FA	20
34	23 DEC	Antonov 140	AZAL	nr Baku	23
35	24 DEC	Antonov 28	African Union	Zalinge	2
					1059+44

Other occurrences

Two occurrences that resulted in fatalities have not been included in the analysis as they were outside the scope:

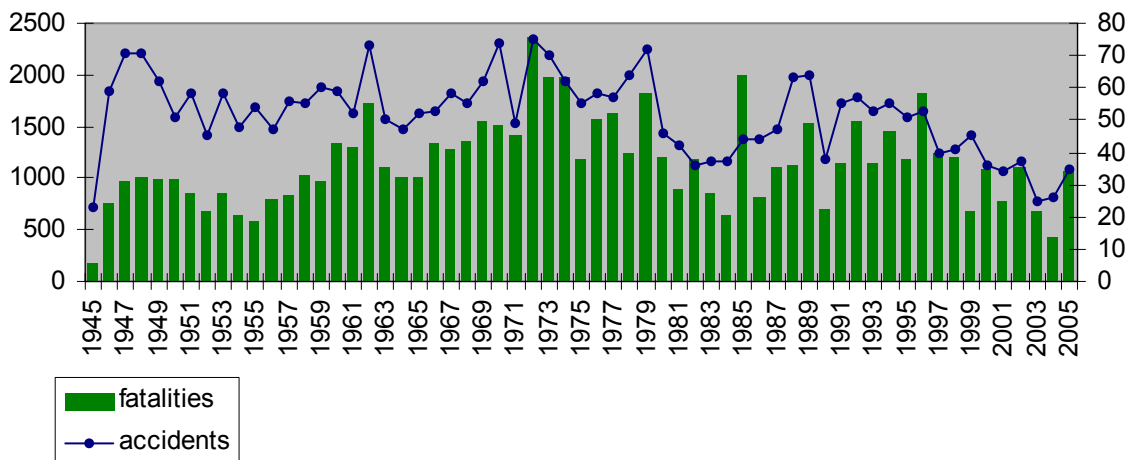
	Date	Aircraft type	Operator	Location	Fatalities
1	08 SEP	Boeing 747-300	Saudi Arabian	Colombo	1
2	08 DEC	Boeing 737-700	Southwest Airlines	Chicago, IL	0+1

2005 IN HISTORICAL PERSPECTIVE

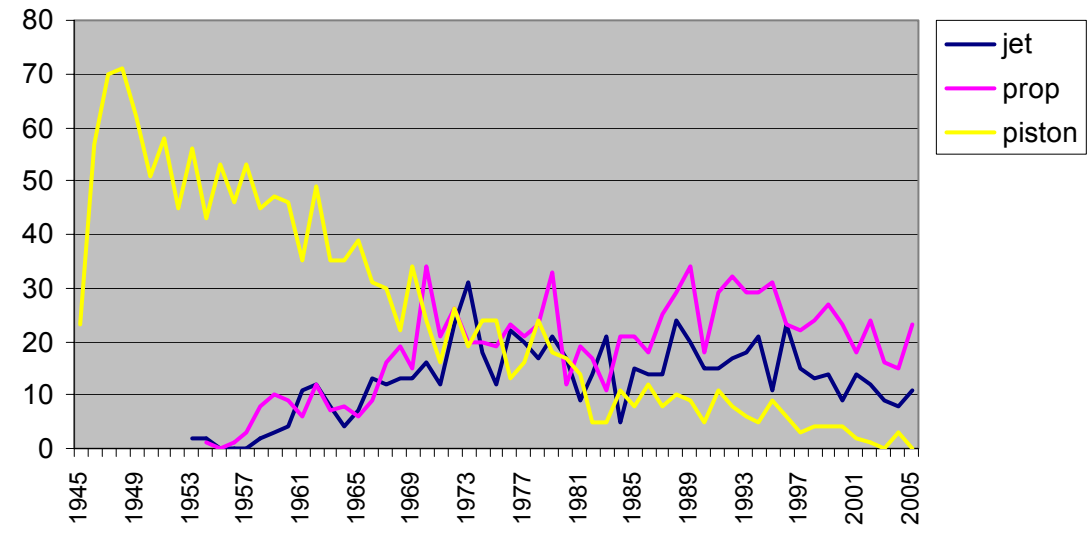
From a historical perspective, 2005 was an average year.

Although the number of fatal accidents (35) was significantly lower than the ten-year average (40), the number of fatalities was almost equal to the 1995-2004 ten-year average. This was caused by the high number of accidents resulting in 100 or more fatalities.

- The 2005 death toll of 1059 was below the 1974-2004 average death toll of 1294 casualties
- The 2005 death toll of 1059 was just below the 1995-2004 average death toll of 1095 casualties
- The 2005 number of occupants involved in fatal airliner accidents of 1498 was slightly higher than the 1994-2004 average of 1474.
- The 2005 fatality rate (percentage of occupants killed in fatal airliner accidents) of 71% was lower than the 1994-2004 average of 74%
- The 2005 number of 35 fatal airliner accidents was far below the 1975-2004 average number of fatal airliner accidents of 47,8 per year
- The 2005 number of 35 fatal airliner accidents was far below the 1995-2004 average number of fatal airliner accidents of 39,6 per year
- The 2005 number of accidents resulting in 100 or more fatalities was high: 6, which is the fifth highest number in aviation history



- The 2005 number of 11 fatal jet airliner accidents was below the 1975-2004 average of 15,4 accidents per year
- The 2005 number of 24 fatal prop airliner accidents was slightly higher than the 1975-2004 average of 23 accidents per year
- The 2005 number of 0 fatal piston airliner accident was far below the 1975-2004 average of 9,2 accidents
- The 2005 number of 0 fatal piston airliner accident was below the 1995-2004 average of 3,8 accidents



fatal airliner accidents by propulsion

AIRCRAFT MANUFACTURERS

A breakdown by aircraft manufacturer shows that Antonov suffered the highest number of accidents for the third year in a row. The majority of Antonov accidents happened in Africa, a continent with the highest accident rate. Early model Antonovs (An-12, 24, 26) are widely used by a variety of central African airlines and are not always maintained and operated in accordance with international standards.

Sadly in 2005 Antonov's An-140 regional turboprop suffered its first fatal scheduled passenger accident.

Manufacturer	2005	2004	2003	2002	2001	2000	1999
Aérospatiale / BAC	0	0	0	0	0	1	0
Airbus	0	0	0	0	1	2	0
Antonov	11	2	3	5	2	5	3
ATR	1	0	0	2	0	0	2
BAC	0	0	0	1	0	0	0
Beechcraft	0	2	2	1	1	1	3
Boeing	6	2	3	7	6	3	5
BAe/Avro	0	2	1	0	1	2	1
Canadair	2	2	1	0	0	0	0
CASA	0	0	0	0	1	0	1
Consolidated	0	0	0	1	0	0	0
Convair	0	2	1	0	0	0	0
Curtiss	0	0	0	0	0	2	0
De Havilland Canada	2	2	1	4	1	3	4
Dornier	0	0	0	0	0	0	2
(MDD)Douglas	2	2	1	1	3	4	10
Embraer	1	2	0	2	0	1	3
Fairchild	0	0	1	1	0	0	0
Fokker	0	1	1	2	1	1	2
GAF	0	0	0	0	1	0	0
Grumman	1	0	1	0	0	0	0
Hawker Siddeley	0	1	0	1	0	0	1
Ilyushin	3	2	1	1	2	0	1
Let	3	2	3	4	4	1	2
Lisunov	0	1	0	0	0	0	0
Lockheed	1	0	1	1	0	1	2
PZL Mielec	0	0	0	0	1	0	0
Saab	0	0	0	0	0	1	0
Shorts	0	0	1	0	1	3	0
Sud Aviation	0	0	0	0	1	0	0
Swearingen	2	0	2	1	3	1	0
Transall	0	0	0	0	1	0	0
Tupolev	0	0	1	2	2	0	1
Yakovlev	0	1	0	0	1	1	2
Yunshuji	0	0	0	0	0	2	0
<i>Western Built</i>	18	18	17	25	22	29	36
<i>(fmr) Eastern Block built</i>	17	8	8	12	12	9	9
Total	35	26	25	37	34	36	45

COUNTRIES

In 2005, the Democratic Republic of Congo suffered the highest number of fatal airliner accidents: 4. Given the fact that six aircraft were owned by Congolese companies, the Ministry of Transport acted in September by revoking the Air Operator Certificates (AOC) of 33 of the countries airlines.

Similar measures were taken in Nigeria, where several airlines were (temporarily) grounded.

Country	2005	2004	2003	2002	2001
Afghanistan	2	0	0	0	0
Algeria	0	1	1	0	0
Angola	0	0	0	0	1
Argentina	0	0	1	0	0
Australia	1	0	0	0	0
Azerbaijan	1	1	0	0	0
Benin	0	0	1	0	0
Brazil	0	2	0	2	0
Canada	0	1	1	0	1
Central African Rep.	0	0	0	1	0
China	0	2	0	1	0
Colombia	1	1	1	3	2
Comoros	0	0	0	1	0
Congo (Brazzaville)	1	0	0	0	0
Congo (fmr Zaire)	4	0	0	0	2
Djibouti	0	0	0	1	0
East Timor	0	0	1	0	0
Egypt	0	1	0	0	0
Equatorial Guinea	1	0	0	0	0
Estonia	0	0	1	0	1
France (incl. overseas):	1	0	1	0	1
Gabon	0	1	1	0	0
Germany	0	0	0	1*	0
Greece	1	0	0	0	0
Guatemala	0	0	0	0	1
Guyana	0	0	1	0	0
Haiti	0	0	1	0	0
Indonesia	2	1	1	2	2
Iran	1	0	0	2	1
Italy	3	0	0	0	1
Kenya	0	1	2	1	0
Liberia	0	0	0	1	0
Luxembourg	0	0	0	1	0
Mexico	0	0	0	1	1
Morocco	0	0	0	1	0
Nepal	0	1	0	2	0
New Zealand	1	0	1	0	0
Nigeria	2	0	0	2	1
Papua New Guinea	1	1	0	0	0
Peru	1	0	1	0	0
Philippines	0	0	0	1	0
Romania	1	0	0	0	0
Russia	1	1	1	2	3
Spain	0	0	0	2	2
South Africa	0	0	0	1	0
South Korea	0	0	0	1	0
Sudan	3	3	2	0	0
Surinam	0	0	0	0	1
Switzerland	0	0	0	0	1

Taiwan	0	0	0	1	0
Tanzania	1	0	0	0	0
Thailand	0	0	0	0	1
Tunisia	0	0	0	1	0
Turkey	0	0	2	0	0
Uganda	1	0	0	0	0
UK	0	0	0	0	1
United Arab Emirates	0	1	0	0	0
USA	2	4	3	3	7
Uzbekistan	0	1	0	0	0
Venezuela	1	1	1	0	2
Atlantic Ocean	0	1	0	0	1
Pacific Ocean	0	0	0	1	0
Total	35	26	25	37	34
*) collision					

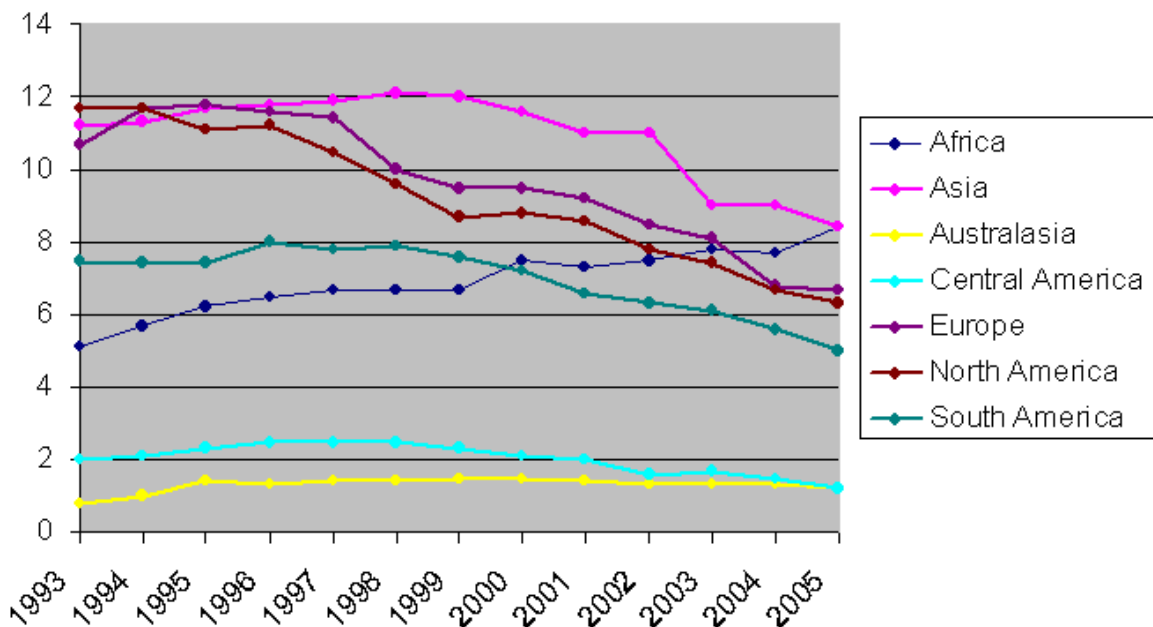
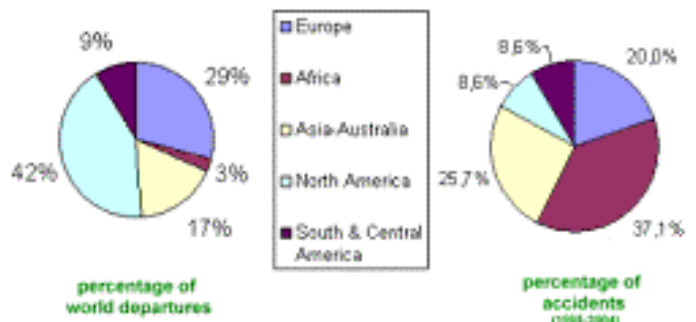


REGIONS

In 2005 Africa was again the most unsafe continent. 37% of all fatal airliner accidents happened in Africa, while Africa only accounts for approximately 3 percent of all world aircraft departures.

The moving 10-year average trends show a decrease in the average number of fatal accidents for Asia, North-, South-, and Central America over the past six to seven years. Africa on the other hand shows an increase from a 10-year average of 5,1 accidents in 1993 to 8,4 accidents in 2005. The average number of accidents per year in Australasia has remained stable at approximately 1,3 since 1995. Europe's steady decrease was halted in 2005 at a 10-year average of 6,7 accidents.

Region	2005	2004	2003	2002	2001
Africa	13	7	7	10	4
Asia	6	7	2	11	4
Australia	3	1	1	0	0
Central America	0	1	1	0	2
Europe	7	1	5	7	10
North America	3	5	4	4	9
South America	3	4	5	5	5
Total	35	26	25	37	34



moving 10-year average number of accidents per year for each region

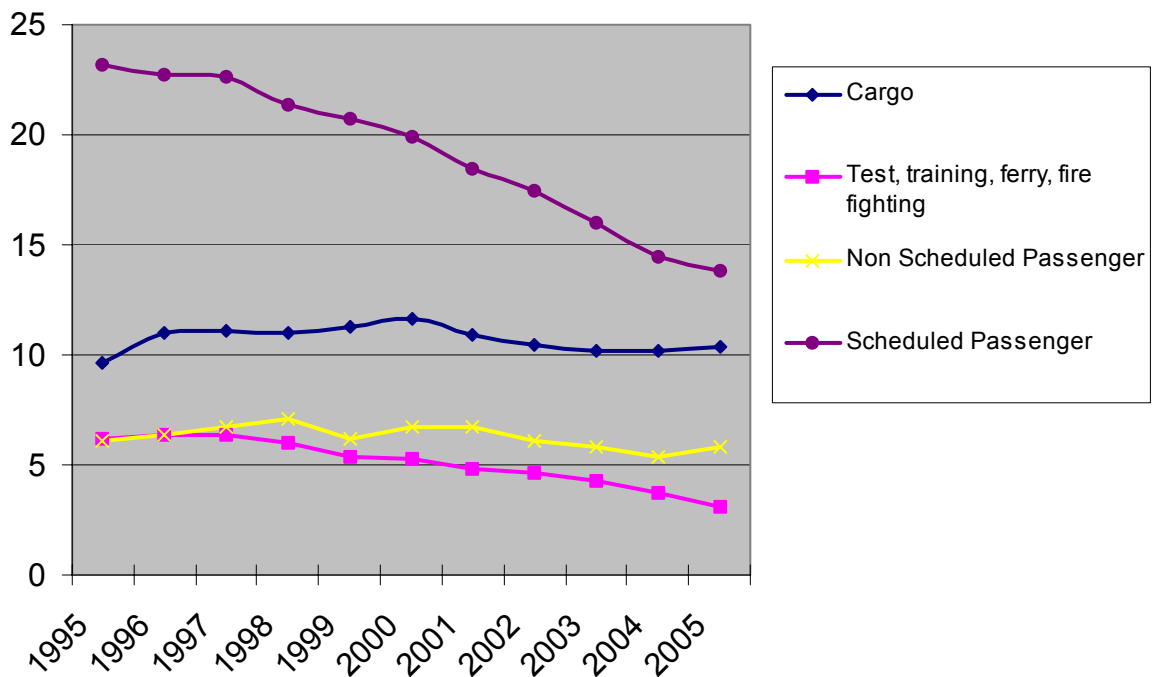
FLIGHT NATURE

Eleven fatal passenger flight accidents in 2004 was an all-time low. However, 2005 showed a marked increase to 21. Although still lower than the ten-year average, measures seem necessary to continue the trend.

Where in 2004 cargo planes were reason for concern, 2005 showed a remarkable decrease in cargo plane crashes to 8.

Manufacturer	2005	2004	2003	2002	2001	2000	1999
Ambulance	0	0	0	0	1	0	0
Executive	0	1	1	0	0	0	0
Ferry/positioning	0	1	2	5	0	1	3
Fire fighting	2	0	1	2	0	1	0
Freight	8	13	7	9	5	9	16
Non Scheduled Passenger	5	3	5	4	7	9	4
Skydiving	0	0	1	0	0	0	1
Scheduled Passenger	14	8	8	13	13	14	19
Training	1	0	0	0	1	0	0
Passenger *)	2	0	0	4	3	0	1
?	3	1	0	0	4	2	0
-	0	0	0	0	0	0	1
Total	35	27	25	37	34	36	45

*) unknown if these flights were a scheduled or non-scheduled passenger flights.



moving 10 year average number of fatal accidents per year for a number of flight natures

FLIGHT PHASE

The number of approach and landing accidents stabilized at twelve. As the August 23 accident involving a Peruvian Boeing 737 showed, the survival-rate of approach and landing accidents is relatively high. The airplane crash-landed in swampland in windshear-prone weather conditions but 58 of the 98 occupants survived the crash. Statistics show that in the last ten years 33% of all occupants survived approach and landing accidents.

Most accidents happened in the en route phase of flight.

Phase	2005	2004	2003	2002	2001	2000	1999
Standing	0	0	0	0	1	0	0
Takeoff	1	2	2	2	3	3	2
Initial climb	5	2	4	0	2	4	2
En route	14	8	9	14	15*)	13	21
Maneuvering	1	0	2	2	0	1	0
Approach	8	9	8	17	12	11	11
Landing	4	3	0	2	1	3	8
Unknown	2	2	0	0	0	1	1
Total	35	26	25	37	34	36	45

*) incl. 5 other occurrences (shootdown + 4 hijackings)

1999: 1 landing, 2 En route accidents shootdown & criminal act

Average survival percentage per flight phase:

Phase	2005	1996-2005
Standing		
Takeoff	88,1	50,1
Initial climb	13,6	14,5
En route	3,3	9,2
Maneuvering	0	31,4
Approach	45,2	17,7
Landing	69,9	82
Unknown	0	
Total	29,4	25,9

AVIATION SAFETY PRIORITIES

Analyzing last year's accidents and comparing them with the four aviation safety priorities, identified by the Flight Safety Foundation (FSF), it can be concluded that much work still needs to be done:

Controlled flight into terrain (CFIT)

CFIT occurs when an airworthy aircraft under the control of the flight crew is flown unintentionally into terrain, obstacles or water, usually with no prior awareness by the crew. CFIT accidents in 2005 were probably responsible for almost one quarter of all fatal accidents, killing over 160.

Approach and landing

Twelve accidents happened in the approach and landing phase last year. As the August 23 accident involving a Peruvian Boeing 737 showed, the survival-rate of approach and landing accidents is relatively high (37% over the last ten years). The airplane crash-landed in swampland in windshear-prone weather conditions but 58 of the 98 occupants survived the crash.

Loss of control

Again several accidents last year can be attributed to a loss of control of some kind. Preliminary investigation results indicate that the serious accident in August involving an MD-80 twin jet in Venezuela was such a loss of control accident. It seemed that the flight crew were not able to recover from an engine flameout, airplane stall and high speed descent at night over unlit mountainous terrain.

Human factors

As most accident investigations are not completed yet, it's too early to tell in what cases human actions were a causal factor in accidents in 2005. However the investigation into the August 14 crash of a Cypriot Boeing 737 plane in Greece will surely focus on questions like why the Pressurization Mode Selector (PMS) was left in the "Manual" position after maintenance, why the crew did not detect this, how the crew interpreted the various warnings and indications and that the aircraft did not pressurize after takeoff. Another issue will be the intra-cockpit communications.

It must be stressed that human factors does not mean "pilot error"; in human factors it is important to determine which mistakes were made, why, under what circumstances etc.

APPENDIX 1 – List of airliner types covered

ATR-42, ATR-72
Airbus A.300, A.310, A.318, A.319, A.320, A.321, A.330, A.340
Airspeed AS.57 Ambassador
Antonov 8, 10, 12, 22, 24, 26, 28, 30, 32, 38, 70, 72, 74, 124, 140, 225
Armstrong Whitworth Argosy
Aviation Traders ATL-98 Carvair
Avro 685 York, 688 Super Trader, Tudor, 691 Lancastrian
BAC One-Eleven
BAC/Aérospatiale Concorde
Beechcraft 99, 1900
Boeing C-97, 307, 314, 377, 707, 720, 717, 720, 727, 737, 747, 757, 767, 777
Breguet Br.763 Provence
Bristol 170, 175 Britannia
British Aerospace ATP, BAe-146, Jetstream 31, Jetstream 41
Canadair Argonaut, CL-215, CL-415, CL-44, RJ100/200/700
CASA/Nurtanio 212 Aviocar, CN.235
Consolidated Liberator, PB4Y-2 Privateer, PBY-5A Catalina
Convair CV-240, CV-300, CV-340, CV-440, CV-580, CV-600, CV-640, CV-880, CV-990
Curtiss C-46
Dassault Mercure
de Havilland Canada DHC-4 Caribou, DHC-5 Buffalo, DHC-6 Twin Otter, DHC-7, DHC-8
de Havilland DH-86 Express, DH-106 Comet, DH-114 Heron
Dornier Do-228, Do-328, Do-328JET
Douglas DC-2, DC-3, DC-4, DC-6, DC-7
Embraer 110 Bandeirante, 120 Brasilia, ERJ-135/140/145, 170
Fairchild C-82 Packet, C-119 Flying Boxcar, F-27, FH-227
Fiat G.212
Focke-Wulf FW.200 Condor
Fokker F.XII, F-27 Friendship, F-28 Fellowship, 50, 70, 100
Ford AT-5 Tri-Motor
GAF Nomad
Grumman G-159 Gulfstream I, G-73T Turbo Mallard
Handley Page HP.68/81/82 Hermes, HP-137 Jetstream, HPR.7 Herald
Hawker Siddeley HS-121 Trident, HS-748
Hindustan Aeronautics Ltd. HAL-748
Howard 250, 500
IAI Arava
Ilyushin 12, 14, 18, 62, 76, 86, 96, 114
Junkers Ju-52/3m
Latécoere 631
Let 410, 610
Lockheed 18 Lodestar, Hercules, L-049/149 Constellation, L-649/749 Constellation, L-1049 Super Constellation, L-1649 Starliner, L-188 Electra, L-1011 TriStar
Martin 130, 2-0-2, 4-0-4, Mars, Mariner
McDonnell Douglas DC-8, DC-9/MD-80s/MD90, DC-10, MD-11
Miles Marathon
NAMC YS-11
Nord 2501 Noratlas, 262
Pilatus Britten Norman BN-2A Trislander
SAAB Scandia, 340, 2000
Saunders ST-27
Savoia-Marchetti SM.95
Scottish Aviation Twin Pioneer
Short S.25 Mk.5 Sandringham, S.26 G Class, S.45 Solent, 330, 360, SC.7 Skyvan
Sikorsky S.42, S.43
SNCASE SE.161 Languedoc, SE.2010 Armagnac
SNCASO SO.30
Sud Aviation SE-210 Caravelle
Swearingen Merlin IV, Metro

Transall C-160
Tupolev 104, 114, 124, 134, 144, 154, 204, 234, 334
VFW-614
Vickers Vanguard, Varsity, VC-10, Viking, Viscount
Yakovlev 40, 42
Yunshuji Y-12

APPENDIX 2 – Descriptions of all fatal airliner accidents

08 JAN 2005	Antonov 12	9Q-CIH	Service Air	Bukalaza (Uganda)	6(6)
<p>A Service Air Ltd. Antonov 12 cargo plane departed Entebbe Airport at 12:48 with destination Kinshasa. The plane carried humanitarian relief items. After takeoff engine problems forced the crew to return to Entebbe. The aircraft crashed in a forest some 6nm (11 km) from the airport. Investigation revealed that Service Air neither had an Air Service Licence nor an Air Operator's Certificate, nor did they meet the minimum requirements for such operations. For instance, the company had no record of maintenance and no quality controls. There was no records on licensing and training of the crew members or the insurance for the operations. The airplane was found to have crashed due to engine failure and the plane being loaded outside the weight and balance safety envelope.</p>					
13 JAN 2005	Embraer 110P1 Bandeirante	N49BA	AirNow	Keene-Dillant-Hopkins Airport, NH (EEN) (United States of America)	1(1)
<p>The AirNow flight departed Bangor at 20:18 on a flight to Manchester. Weather at Manchester however was foggy and the pilot was unable to land there. The pilot then requested to proceed to his alternate destination, Burlington. During the flight to Burlington, the pilot was contacted by company dispatch and it was agreed that Bennington would be a better destination because it was 45 miles closer than Burlington. As the flight progressed towards Bennington, the pilot contacted ATC and requested to change his destination to Keene. Weather at Keene included winds from 350 degrees at 3 knots; 1 statute mile of visibility; an overcast cloud layer at 100 feet agl. The Bandeirante flew an ILS approach to runway 02 but crashed and burned on the runway. Investigation revealed that the nr.2 propeller was feathered at the time of impact.</p>					
27 JAN 2005	Let 410UVP-E4	HA-LAR	Farnair Hungary	2 km from Iasi Airport (IAS) (Romania)	2(2)
<p>The Let 410 departed Bucharests domestic airport Baneasa for a regular mail flight to Iasi. Weather was poor as the aircraft arrived near Iasi. Snowfall limited the visibility to approx. 2 kilometers with a temperature of -4 deg. C. The airplane was on an NDB approach to runway 15 with PAR assistance. Over the IAS beacon the pilot reported flying at 2700 ft and stated that they were going to turn right, outbound. The aircraft however turned left and descended until it crashed near a road, 300 meters West of the tower.</p>					
03 FEB 2005	Ilyushin 76TD	ST-EWB	Air West, Co	15 km from Khartoum (Sudan)	7(7)
<p>The Ilyushin cargo plane departed from Sharjah at 03:30 carrying 46 tons of humanitarian aid for refugees in the war-torn province of Darfur. An intermediate stop was planned in Khartoum before it would continue on to Nyala, Sudan. The pilot established contact with the Khartoum control tower at 8:00 and stated that the aircraft had developed problems with the fuel system. The pilot was advised to make an emergency landing at Aad Babaker, about 15km west of Khartoum. The aircraft did not make it and crashed and broke up in the desert. The airplane was reportedly operated by Air West, but probably owned by sister company East/West Cargo, which operates several Il-76 aircraft.</p>					
03 FEB 2005	Boeing 737-242	EX-037	Kam Air	32 km ESE of Kabul (Afghanistan)	104(104)
<p>Kam Air flight 904 was approaching Kabul in extremely low visibility conditions. The airplane struck a ridgeline on an easterly heading near</p>					

the crest of the Chaperi Ghar Mountain about 50 feet down from the very top. The mountain has an altitude of 11,000 feet. The wreckage was found after two days.

22 FEB 2005	de Havilland Canada DHC-6 Twin Otter 300	P2-MFQ	Missionary Aviation Fellowship - MAF	near Wobegon (Papua New Guinea)	2(13)
Crashed in the mountains of western Papua New Guinea while attempting to land at Bimin's runway 29. Both pilots died in the accident. The survivors were able to walk to the village. Bimin has a single grassed grey gravel airstrip with 1723 feet of landing distance. It can only be used in one direction for landing (29) and takeoff (11) because it has a 10 degrees slope. Field elevation is 5758 feet. Air crews are being cautioned for turbulence and downdrafts on finals.					
16 MAR 2005	Antonov 24RV	RA-46489	Regional Airlines	5 km from Varandey (Russia)	28(52)
While approaching the airport of Varandey the crew allowed the airspeed to decay and the nose to rise until the airplane stalled. It contacted a small hill, crashed and burned. Possible errors in the indications of the airspeed and angle-of-attack could have hindered the crew members to monitor the flight parameters.					
18 MAR 2005	Canadair CL-415	I-DPCK	SOREM/Protezione Civile	Versilia (Italy)	2(2)
The firefighting plane had scooped up water twice in an attempt to put out a forest fire. The airplane contacted powerlines, crashed into an unoccupied house and caught fire.					
23 MAR 2005	Ilyushin 76TD	ER-IBR	Airline Transport	7,5 km W off Mwanza Airport (MWZ) (Tanzania)	8(8)
The Ilyushin was chartered to fly 50 tons of fish fillet from Mwanza to Osijek, Croatia. The airplane was to make scheduled refueling stops at Khartoum and Benghazi. The aircraft crashed into Lake Victoria soon after takeoff.					
26 MAR 2005	Let 410UVP-E	HK-4146	West Caribbean Airways	Providencia-El Embrujo Airport (PVA) (Colombia)	8(14)
The Let 410 took off from runway 17/35 at Providencia-El Embrujo Airport. At a height of about 300 feet the aircraft banked right and began to descend, crashing in a swampy/bushy area.					
12 APR 2005	de Havilland Canada DHC-6 Twin Otter 100	PK-LTZ	GT Air	6 km from Enarotali (Indonesia)	17(17)
The Twin Otter plane left Timika at 11:50 and was expected to have arrived in Enarotali at 12:15. The wreckage was found April 17. Enarotali Airport is located at an elevation of 5500 feet.					
20 APR 2005	Boeing 707-3J9C	EP-SHE	Saha Air	Tehran-Mehrabad Airport (THR) (Iran)	3(169)
After touchdown on runway 29L problems with the undercarriage (failure of a landing gear or tyre burst) caused the Boeing 707 to slide off the runway into the Kan River. Three passengers were killed after they fell in the river during the evacuation.					

20 APR 2005	Lockheed P-3B Orion	N926AU	Aero Union	22 km of Chico, CA (United States of America)	3(3)
<p>The tanker aircraft had taken off from Chico qualification check flight for pilots who were scheduled to conduct firefighting operations during the upcoming fire season. The accident flight involved conducting practice drops of water over an area of rugged mountainous terrain located north of the Chico Airport. Prior to departing on the flight, the airplane was loaded with 2,550 gallons of water. The Orion crashed and caught fire immediately following the training drop in the rugged terrain of the Lassen National Forest.</p>					
02 MAY 2005	Swearingen SA.227AC Metro III	ZK-POA	Airwork, NZ	6 km E of Stratford (New Zealand)	2(2)
<p>The Metro was on a scheduled NZ Post return flight when it crashed in rural farmland. The wreckage was scattered over a large area of at least two to three sq km. Investigation revealed that the airplane broke up in midair. A fire is believed to have erupted prior to the accident. Reportedly the landing gear was extended as the airplane crashed, which could indicate a fire in the area of a main gear wheel well.</p>					
05 MAY 2005	Antonov 26	?	Kisangani Airlift	28 km N of Kisangani (Congo Democratic Republic)	10(11)
<p>The aircraft reportedly departed Bangboka at 12:48 bound for Isiro. Local media information suggest that the plane may have tried to return to the airport when it hit treetops and crashed. The identity of the plane has not been confirmed, but it may have been EX-26060 (msn 17311107). The owner Aeroworld has also been quoted as "World Aero Airways".</p>					
07 MAY 2005	Swearingen SA.227DC Metro 23	VH-TFU	Aero-Tropics Air Services	12 km NW of Iron Range Airport, QLD (IRG) (Australia)	15(15)
<p>Crashed into the side the 1300-foot high South Pap Ridge, 100 feet below the top. The cloud ceiling in the area at the time has been estimated at about 900 ft. Airservices Australia procedures dictate that the aircraft should have been descending from 2860 ft to 2115 ft and observing a minimum safe altitude of 2060 ft. The ATSB reported that the airplane's Cockpit Voice Recorder had not recorded anything on the flight. It said to contain electrical pulses and fragments of communications that have been identified as (being) from previous flights.</p>					
25 MAY 2005	Antonov 12BP	9Q-CVG	Victoria Air	10 km from Biega (Congo Democratic Republic)	27(27)
<p>Crashed some 30 minutes after takeoff in a mountainous and wooded area. The airplane was on a flight from Goma to Kongolo with a planned stop at Kindu. The Antonov was carrying out a flight on behalf of the private company Maniema Union.</p>					
02 JUN 2005	Antonov 24B	ST-WAL	Marsland Aviation	Khartoum-Civil Airport (KRT) (Sudan)	5(42)
<p>Crashed on takeoff. A fire erupted in the nr.1 engine, causing severe damage to the engine and the left-hand side of the fuselage. Three passengers are said to have died in the crash, while four more, including a flight attendant, died in the next days.</p>					

16 JUL 2005	Antonov 24B	3C-VQR	Equatorial Express Airlines	near Baney (Equatorial Guinea)	60(60)
<p>The Antonov departed Malabo on a domestic morning flight to Bata on the mainland. Shortly after takeoff the aircraft contacted trees and crashed into a mountainous jungle area, some 30 km from Malabo. There are conflicting reports regarding the number of persons on board. According to the airline, the flight manifest shows 10 crew and 35 passengers. Government sources reported 60 people were on the plane, after first reports of 55 occupants.</p> <p>The ill-fated Antonov was brought to Equatorial Guinea to fly for Aerolíneas de Guinea Ecuatorial (AGE) starting February 2002. It's first 1000-hour maintenance check was estimated for January 2004. Around that period AGE ceased operations and the plane moved to the new company Equatair. Reportedly the aircraft moved to Equatorial Express Airlines and was continuously operated without undergoing the 1000-hour maintenance check.</p>					
01 AUG 2005	Canadair CL-415	F-ZBEO	Securité Civile	1,5 km from Calvi (France)	2(2)
<p>The Canadair was called in to fight a forest fire in the area of Calenzana on the island of Corsica. The aircraft crashed near Calvi. French Securité Civile officials briefly grounded all their Canadairs following the crash to conduct safety inspections.</p>					
06 AUG 2005	ATR-72-202	TS-LBB	Tuninter	26 km NE off Palermo-Punta Raisi Airport (PMO) (Italy)	16(39)
<p>On August 5 Tuninter's ATR-72 TS-LBB arrived at Tunis with 790 kgs of fuel left in the fuel tanks. During maintenance the Fuel Quantity Indicator (FQI) was changed. Erroneously the FQI for ATR-42 aircraft was installed. The normal operation of the FQI is to process the signal coming from the capacitance probes installed in the tanks with an algorithm typical for each aircraft, depending on tank shape, size and number of probes installed. The indication of the amount of fuel on board the airplane now read 3050 kgs instead of 790 kgs. On August 6 the airplane was prepared for flight 152F to Bari. An amount of 465 kgs fuel was added for the flight (total fuel: 1255 kgs, with 3800 kgs indicated). Upon landing at Bari only 305 kgs were left in the tanks. Normally this should have triggered a 'LO LVL' warning, but the FQI read 2300 kgs, which made the crew believe they had plenty of fuel left. In preparation for the flight to Djerba, just 265 kgs of fuel was added. The flight departed with 2700 kgs of fuel indicated by the FQI (actual amount: 570 kgs).</p> <p>En route, at 15:24 the crew contacted Palermo for an emergency landing. They had run out of fuel and both engines had quit. Their FQI nevertheless showed 1800 kgs of fuel. They did not make it to Palermo and ditched in the sea around 15:40.</p>					
14 AUG 2005	Boeing 737-31S	5B-DBY	Helios Airways	2 km from Grammatikos (Greece)	121(121)
<p>Helios' Boeing 737-300 5B-DBY underwent maintenance on the night prior to the accident. The pressurization system was checked, but after completion of the tests the Pressurization Mode Selector (PMS) was reportedly left in the "Manual" position instead of the "Auto" mode. In manual mode the crew had to manually open or close the outflow valves in order to control the cabin pressure. The outflow valves were one-third in the open position which meant that the cabin would not pressurize after takeoff. The PMS mode was apparently not noted during the pre-departure checks by the crew.</p> <p>In the morning the 737 was to operate Flight 522 from Larnaca to Prague, Czech Republic with an intermediate stop at Athens, Greece. The flight departed Larnaca at 09:07 for the leg to Athens with a planned flying time of 1 hour and 23 minutes. As the airplane climbed over the Mediterranean the cabin altitude alert horn sounded. This occurred as the 737 passed through an altitude of 10,000 feet. Cabin altitude is</p>					

usually held around 8,000 feet. The crew possibly thought it was an erroneous takeoff configuration warning because the sound is identical. Then, at 14,000 feet, the oxygen masks automatically deployed and a master caution light illuminated in the cockpit. Because of a lack of cooling air another alarm activated, indicating a temperature warning for the avionics bay.

The German captain and the Cypriot co-pilot tried to solve the problem but encountered some problems communicating with each other in English. They contacted the Helios' maintenance base to seek advice. The engineer told that they needed to pull the circuit breaker to turn off the alarm. The circuit breaker was located in a cabinet behind the captain. The captain got up from his seat to look for the circuit breaker. The crew were not wearing their oxygen masks as their mindset and actions were determined by the preconception that the problems were not related to the lack of cabin pressure.

As the airplane was still climbing the lack of oxygen seriously impaired the flight crew. The captain probably became unconscious when he was trying to find the circuit breaker. The first officer was still in his seat when he also became unconscious. Because the the plane's autopilot was programmed for FL340 the Boeing continued to climb until levelling out at that altitude some 19 minutes after takeoff. At 09:37 the 737 entered the Athens FIR but not contact was established with the flight. Over Rodos at about 09:52 the airplane entered the UL995 airway. Around 10:20 the airplane reportedly entered holding pattern over the Kea VOR which is located about 28 nm south of the Athens airport. All efforts by Greek air traffic controllers to contact the pilots were futile. Around 11:00 two Greek F-16 fighter planes were scrambled from the Néa Anghialos air base. About half an hour later the F-16's intercepted the airliner. The F-16 pilots reported that they were not able to observe the captain, while the first officer seemed to be unconscious. Apparently one or two other persons seemed to have entered the cockpit, attempting to control the plane. The F-16's continued to track the flight.

At 11:50 the steward, who had just started flying lessons, attempted to control the plane. The airspeed increased and the aircraft turned right. The airplane was then turned left over the island of Evvoia heading toward Athens. By now the aircraft had run out of fuel, being airborne for almost three hours. When descending through an altitude of 7,000 feet both engines flamed out. The aircraft descended further until it crashed in a hilly area some 40 km North of Athens.

The same Boeing 737, 5B-DBY, suffered a loss of cabin pressure on December 20, 2004 during a flight from Warsaw to Larnaca. Three passengers needed medical treatment after landing in Larnaca. This incident was caused by a leaking door seal of the right hand rear door.

16 AUG 2005	McDonnell Douglas MD-82	HK-4374X	West Caribbean Airways	near Machiques (Venezuela)	160(160)
	The MD-82 arrived at Panama City-Tocumen after a flight from Medellín-José María Córdova Airport (MDE). The plane was then prepared to carry out a flight to the Caribbean island of Martinique. Flight WCW 708 departed Panama City at about 06:00 UTC (01:00 local time) and climbed to its cruising altitude of FL310.				
	This altitude was reached at about 06:25 UTC. Sixteen minutes later the airplane began a normal climb to FL330. At 06:49 the speed began to steadily decrease from Mach 0.76. The horizontal stabilizer moved from about 2 units nose up to about 4 units nose up during this deceleration. At 06:51 UTC the crew reported at FL330 over the SIDOS waypoint, over the Colombian/Venezuelan border, and requested a direct course to the ONGAL waypoint. The controller instructed the crew to continue on the present heading and to await further clearance direct to ONGAL. The flight crew meanwhile discussed weather concerns that included possible icing conditions and the possible need to turn on engine and airfoil anti-ice.				
	At 06:57 UTC the flight crew requested permission to descend to FL310, which was approved. The autopilot was disconnected and the airplane started to descend. As the airplane descended past about FL315, the airspeed continued to decrease and the engine EPR decreased to about flight idle. Two minutes later a further descent to FL290 was requested, but the controller at Maiquetía did not understand that this was a request from flight 708 and asked who was calling. Flight 708 responded and immediately requested descent to FL240. The				

controller inquired about the state of the aircraft, to which they responded that both engines had flamed out. The controller then cleared the flight to descent at pilot's discretion. In the meantime, the altitude alert warning had activated, followed by the stick shaker and the aural stall warning alert. The airspeed had reached a minimum of about 150 indicated air speed (IAS) knots at about FL250. The crew reported descending through FL140 and reported that they were not able to control the airplane. The aircraft descended at 7000 ft/min, and finally crashed in a swampy area. The entire descent from FL330 had taken approx. 3 minutes and 30 seconds.

23 AUG 2005	Boeing 737-244	OB-1809-P	Transportes Aéreos Nacionales de la Selva - TANS	4,6 km S of Pucallpa-Cap. FAP David A. Abensur Rengifo Airport (PCL) (Peru)	40(98)
<p>TANS Flight 204 departed Lima at 14:24 on a scheduled 53-minute flight to Pucallpa. After an intermediate stop there the airplane was to continue to Iquitos.</p> <p>While approaching Pucallpa meteorological conditions deteriorated with towering cumulus clouds and strong winds. While approaching runway 02 the 737 crash-landed in swampland. There are conflicting reports regarding the number of fatalities and occupants. Official sources say 44 out of 100 occupants were killed and one passenger missing, presumed killed. Local media reported however that the number of occupants was corrected from 100 to 98 by TANS and the number of fatalities was reported as 40. These figures are confirmed by TANS.</p>					
05 SEP 2005	Boeing 737-230	PK-RIM	Mandala Airlines	Medan-Polonia Airport (MES) (Indonesia)	101(117) + 44
<p>Crashed in a residential area 500 metres past the runway. The number of fatalities is uncertain. Latest reports say 15 passengers who were seated in the rear of the plane had survived, while 44 persons on the ground are said to have been killed.</p> <p>Weather around the time of the accident (02:40 UTC) was: WIMM 050300Z 15006KT 5000 SCT016 30/25 Q1008 NOSIG= (winds from the South-Southeast at 6 kts, Scattered clouds at 500 m/1600 ft MSL, temperature 30 deg. C, dewpoint 25 deg.C, 1008 hPa).</p> <p>Medan-Polonia has a single 2900 x 45 meters asphalt runway (05/23).</p>					
05 SEP 2005	Antonov 26B	ER-AZT	Kavatshi Airlines	1,5 km from Isiro-Matari (IRP) (Congo (Democratic Republic))	11(11)
<p>The Antonov struck a tree, crashed and caught fire while coming in to land at Isiro. The aircraft was reportedly approaching runway 31 in fog as the accident happened. News reports state that the plane belonged to the private company Galaxie which was reportedly doing business as Kavatshi Airlines.</p> <p>The airplane in question had been leased from Aerocom in November 2003. In September 2004 the certificate of airworthiness of the plane expired, but continued operations in Congo.</p>					
09 SEP 2005	Antonov 26B	9Q-CFD ?	Air Kasai	50 km N of Brazzaville (Congo)	13(13)
<p>An Antonov from Air Kasai crashed in neighbouring Congo Brazzaville as it was flying from Equator province in the North to Kinshasa. There is some uncertainty with regards to the exact identity of this plane. Sources also report that the ill-fated aircraft was msn 10605.</p>					

04 OCT 2005	Antonov 12V	9Q-CWC	Wimbi Dira Airways	Aru Airport (Congo (Democratic Republic))	2(100)
<p>The Antonov departed Kisangani on a troop movement flight, carrying about 100 Congolese Army soldiers to Bunia. The aircraft landed heavy on a dirt strip at Aru, causing the right hand main undercarriage to be pushed through the fuselage into the cabin. Reportedly two passengers were killed and five seriously injured as a result. The fatalities were reportedly caused by persons running into the still turning propellers when evacuating the aircraft.</p>					
22 OCT 2005	Boeing 737-2L9	5N-BFN	Bellview Airlines	near Lisa (Nigeria)	117(117)
<p>Bellview flight 210 took off from Lagos at 20:35 for a domestic flight to Abuja. Last radio contact was about three minutes after takeoff. The flight was cleared to climb to FL250 and was to report when reaching FL130. The next morning the wreckage was found about 30 kms (20 miles) north of Lagos. The latest Lagos TAF weather forecast for the period of the crash read: DNMM 221550Z 221818 28007KT 9999 FEW010 TEMPO 0507 5000 BR BECMG 0810 21008G20KT BKN013 TEMPO FEW020CB=</p>					
30 OCT 2005	Let 410UVP-E19A	9A-BTA	Trade Air	Bergamo (Italy)	3(3)
<p>Trade Air Flight 729 departed Bergamo Airport for a night-time cargo flight to Zagreb. The aircraft crashed and broke up soon after takeoff. Weather was poor with a limited visibility of 200-300 m due to fog. Weather around the time of the accident (21:05 UTC) was: LIME 302050Z 13005KT 0300 R28/0550D FG BKN001 11/10 Q1023= LIME 302120Z 14004KT 0200 R28/0350N FG BKN001 11/10 Q1023= (20:50 UTC: Wind 130 degrees at 5 kts, visibility 300m, runway visual range on runway 28 is 550 m decreasing in fog, 5-7 oktas cloud at 100ft, temperature 11 C dewpoint 10 C, QNH 1023hPa 21:20 UTC: Wind 140 degrees at 4 kts, visibility 200m, runway visual range on runway 28 is 350 m in fog, 5-7 oktas cloud at 100ft, temperature 11 C, dewpoint 10 C, QNH 1023hPa)</p>					
11 NOV 2005	Ilyushin 76MD	4L-ZIL	Royal Airlines Cargo	Khak-e Shahidan (Afghanistan)	8(8)
<p>The cargo plane was chartered to fly communications equipment for coalition forces from Bahrain to Kabul and U.S. military's air base at Bagram. The flight may have been planned to continue to Sharjah as flight RPK 1102, with an planned arrival time of 13:00. Before reaching Bagram the Ilyushin cargo plane flew into the side of a hill and broke up, some 30 km northwest of Kabul.</p>					
10 DEC 2005	McDonnell Douglas DC-9-32	5N-BFD	Sosoliso Airlines	Port Harcourt Airport (PHC) (Nigeria)	108(109)

Sosoliso Airlines flight 1145 was scheduled to depart Abuja for Port Harcourt at 10:00, but the flight was delayed to 13:26. At 13:50, when the flight was 90 nm away from Port Harcourt, the crew received weather information. Fifteen minutes later the crew were cleared to fly an approach to runway 21. The aircraft is said to have encountered a sudden change in wind speed and direction during the final approach. At 14:08 the DC-9 touched down off the side of the runway.

It impacted a drainage ditch and broke up. The main wreckage came to rest after a 790 m long ground slide.

The weather report at 14:00 (13:00Z) read: DNPO 101300Z 22009KT 9999 BKN013 FEW023CB 29/23 Q1007= [wind 220 degrees at 9kts, visibility >10000m 5-7 oktas cloud at 1300ft 0-2 oktas cloud at 2300ft with thunder clouds, temperature 29C dewpoint 23C QNH 1007hPa]

19 DEC 2005	Grumman G-73T Turbo Mallard	N2969	Chalk's Ocean Airways	Miami, FL (United States of America)	20(20)
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Shortly after departure from the Miami Seaplane Base the right wing separated from the fuselage. Escaping fuel ignited as the Mallard came down out of control. It crashed into the mouth of Government Cut channel off the southern tip of Miami Beach and came to rest in 35 feet deep water.

Preliminary investigation of the wreckage showed indications of a fatigue crack in the right wing spar.

23 DEC 2005	Antonov 140-100	4K-AZ48	Azerbaijan Airlines	near Nardaran (Azerbaijan)	23(23)
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Some five minutes after a night-time departure from Baku the flight reported a systems failure. Heading over the Caspian Sea at night made and without flight instruments made it difficult for the crew to judge their flight parameters. The aircraft crashed shortly afterwards on the shore of the Caspian Sea.

Weather at the time of the accident (ca 18:40 Z) was:

UBBB 231830Z 30002KT 3000 -RA BKN003 OVC020 08/08 Q1010 88290060 NOSIG= [Wind 300 degrees at 2 kts, visibility 3000m in light rain, 5-7 oktas cloud at 300ft 8 oktas overcast cloud at 2000ft temperature 8C dewpoint 8C QNH 1010hPa no significant weather]

24 DEC 2005	Antonov 28	ER-AJE	African Union	Zalingei (Sudan)	2(2)
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Crashed shortly after takeoff. The plane's two pilots, a Ukrainian and a Moldovan, were killed.

The Antonov was chartered by the African Union to transport peacekeeping personnel around the Sudanese Darfur region.