

OGP

Safety performance of helicopter operations in the oil & gas industry – 2007 data

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Publications

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I Introduction

The report presents the safety performance of that part of the helicopter industry involved in E&P operations during 2007.

The report is based on submissions from helicopter operators worldwide. The OGP membership acknowledges the support of these organisations, without which this report could not have been produced.

Measuring safety and operational performance

The method used in this report for measuring safety performance relative to the number of aircraft hours, flights, and fatal/nonfatal accidents is the same as used by regulatory authorities such as the UK CAA, US FAA, the insurance industry and the oil industry. The definition of an aviation accident is the same as that used by the regulatory authority for the country for which the data are gathered. As such, some incidents may be reported as accidents by some countries, but not by others. We do our best to report those serious incidents in the report narrative, but not in the statistical analysis. Since incidents are not necessarily reported, it would be difficult to track all occurrences and differences. Therefore, only confirmed accidents are reported statistically. All countries do, however, count a fatal occurrence as an accident, so a comparison of fatal rates is especially valid. The data for the offshore oil industry segment is the most complete, and believed to be most accurate statistically. There are countries for which the data accumulated are incomplete, but the accidents for those areas have been included, so the accident rates, if anything, are overstated.

Highlights of 2007 data

Operational Data

The total number of flights reported was 2.9 million of which 58% were associated with single engine helicopters and 93% with offshore activity. 9.7 million passengers were flown, which is approximately 7% more than the previous year.

47% of the offshore flights were flown in the Gulf of Mexico (GoM), 8% in the North Sea and 45% in other regions. In terms of hours flown offshore, 42% were flown in the GoM, 12% in the North Sea and 47% in other regions. Average offshore flight durations for the three regions are 19 minutes, 32 minutes and 22 minutes respectively.

Accident Data

A total of 19 helicopter accidents were reported, with 26 fatalities. The total number of accidents was 8 less than the previous year. The number of fatalities increased over the previous year by 18%. The two worst accidents each resulted in 6 fatalities each when the helicopters crashed into terrain/water with one occurring during the night time.

Among the primary accident causes were the following:

- 5 of the helicopter accidents were obstacle strikes (3 helideck, 2 non-helideck)
- 4 had unknown causes
- 3 occurred due to engine related problems
- 2 were crashes into terrain or water
- 2 were due to failure of pilot procedures

Associated accident factors:

- 14 accidents were associated with single engine/pilot helicopters.
- Aviation accident rates associated with pipeline activity were considerably higher than those associated with other activity.

Acknowledgement

The contribution made by Bob Williams of Exxon Mobil Corp. towards the collection and analysis of data presented in this report is gratefully acknowledged.

Notes

As a service to OGP membership, this world-wide helicopter statistical report is compiled annually from information submitted voluntarily by the membership and helicopter operators. The information is neither verified nor reviewed for accuracy and should be treated as unofficial. The data are believed to be representative; however, OGP assumes no liability for accuracy or completeness. There are some minor variations in totals due to rounding in formulas in the master database.

Appendix A – Operational data

2007 world-wide helicopter operational data summary

	Type & number of helicopters				Fleet data			
	Single engine (SE)	Light twin (LT)	Medium twin (MT)	Heavy twin (HT)	Total fleet	Passengers carried	Hours flown	Number of flights
Offshore	448	96	435	168	1,147	9,326,136	986,010	2,731,154
Seismic	56	4	5	14	79	85,486	62,061	86,211
Geophysical	25	1	4	1	31	12,199	12,013	11,057
Pipeline	41	7	9	2	59	29,105	34,689	20,999
Other	51	8	32	36	127	210,098	48,864	86,039
2007	621	116	485	221	1,443	9,663,024	1,143,637	2,935,460
2006	600	105	463	215	1,383	9,333,051	1,060,953	2,742,911
2005	614	96	475	208	1,393	8,784,960	1,011,169	2,636,581
2004	588	91	465	201	1,345	8,461,030	974,229	2,499,759
2003	644	98	483	217	1,442	8,828,210	996,547	2,735,271

2007 world-wide helicopter operational data details

	Hours per type helicopter				Passengers (PAX) per type helicopter				Number of flights per type helicopter							
	Single engine (SE)	Light twin (LT)	Medium twin (MT)	Heavy twin (HT)	Light twin (LT)	Medium twin (MT)	Heavy twin (HT)	Total fleet	Light twin (LT)	Medium twin (MT)	Heavy twin (HT)	Total fleet	Light twin (LT)	Medium twin (MT)	Heavy twin (HT)	Total fleet
Offshore	386,543	379,812	181,112	986,010	2,176,238	286,754	2,495,610	9,326,136	1,561,004	115,246	298,211	2,731,154	115,246	756,693	298,211	2,731,154
Seismic	56,012	450	1,123	62,061	64,456	2,387	12,187	85,486	76,234	1,019	8,546	86,211	1,019	412	8,546	86,211
Geophysical	10,135	435	456	12,013	8,312	1,102	2,785	12,199	8,213	1,534	765	11,057	1,534	765	545	11,057
Pipeline	22,345	4,321	1,789	34,689	13,145	3,156	1,348	29,105	15,645	2,431	1,789	20,999	2,431	1,134	1,789	20,999
Other	17,534	2,198	11,256	17,876	49,876	5,134	56,123	210,098	32,435	3,425	16,723	86,039	3,425	33,456	16,723	86,039
2007	492,569	45,947	202,356	1,143,637	2,312,027	298,533	2,568,053	9,663,024	1,693,531	123,655	325,814	2,935,460	123,655	792,460	325,814	2,935,460
2006	402,417	45,791	188,460	1,060,953	2,225,576	223,526	2,636,456	9,333,051	1,574,298	100,285	252,753	2,742,911	100,285	815,575	252,753	2,742,911
2005	404,885	40,859	185,200	1,011,169	2,055,069	202,763	2,372,808	8,784,960	1,522,077	97,683	796,369	2,636,581	97,683	796,369	220,452	2,636,581
2004	387,954	38,383	176,746	974,229	1,923,042	195,961	2,262,568	8,461,030	1,415,204	94,933	775,997	2,499,759	94,933	775,997	213,625	2,499,759
2003	402,107	38,025	182,805	996,547	2,298,843	208,695	1,932,141	8,828,210	1,445,837	95,075	274,784	2,735,271	95,075	919,575	274,784	2,735,271

2007 world-wide helicopter fleet operational data

Averages Per Helicopter	Offshore	Seismic	Geophysical	Pipeline	Other support	World-wide
Pax per Day/5 Day Week	35,870	329	47	112	808	37,165
Flights Per Day	7,483	236	30	58	236	8,042
Avg. Flight Duration in Min.	22	43	65	99	34	23
Annual Hours Per Aircraft	860	786	388	588	385	793
Flights Per Aircraft	2,381	1,091	357	356	677	2,034
Pax Flown Per Year	8,131	1,082	394	493	1,654	6,696

Pax per day/5 day week data: assume 260 days

2007 world-wide helicopter accident data

Type Aircraft	Number of accidents Aircraft Category			Injury classification			Aircraft damages classification			Aviation accident rates			
	# Accidents	# Fatal	# Eng Related	Pax	Crew	Severity	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal TM Occupants	# Acc 100k Ft Stages
Single Piston	1	1	0	2	1	0	0	0	1	2.64	0.81	1.50	0.77
Single Turbine	13	4	3	12	10	16	0	4	9	0.00	0.00	0.00	0.00
Light Twin	0	0	0	0	0	0	0	0	0	0.50	0.50	0.66	0.25
Med Twin	2	2	0	3	2	1	0	0	2	1.48	1.48	4.04	0.92
Heavy Twin	3	3	0	6	7	0	0	0	3	1.66	0.87	1.90	0.65
2007 total	19	10	3	23	20	17	0	4	15	2.54	0.85	1.67	0.98
2006 total	27	9	7	28	15	21	1	12	14	2.67	0.69	1.61	1.02
2005 total	27	7	7	39	18	37	0	10	17	2.05	1.30	4.08	1.28
2004 total	20	7	4	34	15	23	2	7	11				
2003 total	35	13	6	70	23	41	2	13	20				

2007 world-wide helicopter accident data by activity

Type Aircraft	Number of accidents Aircraft Category			Injury classification			Aircraft damages classification			Aviation accident rates			Industry Fatal Rates per 100M Exposure Hrs Psgrs/Crew			
	# Accidents	# Fatal	# Eng Related	Pax	Crew	Severity	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal TM Occupants	# Acc 100k Ft Stages	Accidents (IFAR)	Incidents (IFAIR)	
Offshore	10	5	0	7	10	6	0	3	7	1.01	0.51	0.84	0.37	224	102	
Seismic	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	0	
Geophysical	1	0	1	0	0	0	0	0	1	8.32	0.00	0.00	9.04	0	0	
Pipeline	3	2	1	4	1	4	0	1	2	8.65	5.77	75.43	14.29	4,406	2,203	
Other Sp	5	3	1	12	9	11	0	0	5	10.23	6.14	31.76	5.81	5,575	1,520	
2007 total	19	10	3	23	20	26	0	4	15	1.66	0.87	1.90	0.65	472	181	
2006 total	27	9	7	28	15	22	1	12	14	2.54	0.85	1.67	0.98	416	170	
2005 total	27	7	7	39	18	37	0	10	17	2.67	0.69	1.61	1.02	404	142	
2004 total	20	7	4	34	15	23	2	7	11	2.05	0.72	2.18	0.80	539	145	
2003 total	35	13	6	70	23	41	2	13	20	3.51	1.30	4.08	1.28	1,178	294	

2007 world-wide helicopter accident causes/info

Type Aircraft	Technical causes										Pilot procedure related					Other causes				
	Ttl	Engine related	Other tech	Misc. Pilot Proc.	Flight into Terrain, Water	Tie Down Proc.	Obstacle Strike	External Load Proc.	Fuel Starv	Hard Ldg	Loose cargo	Mid Air	Hostile Fire	Refuel Quality	Pax Cont.	Weather/lightening	Unk	Helideck Design or Size Issues	# Fatal Due To Engine Malf.	
Single Pist.	10	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Single Turb	0	3	0	2	0	4	0	0	0	1	0	0	0	0	0	2	0	0	1	
Light Twin	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Med. Twin	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	
Hvy. Twin	3	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2007 total	19	3	1	2	2	5	0	0	0	1	0	0	0	0	0	4	0	0	1	
2006 total	27	7	3	0	4	0	0	0	3	0	5	0	0	1	0	4	0	0	0	
2005 total	27	7	5	5	1	2	1	1	0	0	1	0	1	0	1	2	0	0	4	
2004 total	20	4	2	4	3	2	0	2	0	0	0	0	0	0	0	3	0	0	6	
2003 total	35	5	4	9	4	7	3	0	0	0	0	0	0	1	0	2	0	0	6	

2007 world-wide offshore helicopter operational data summary

	Numbers of helicopters by type				Total fleet	Passengers carried	Hours flown	Number of flights
	Single engine (SE)	Light twin (LT)	Medium twin (MT)	Heavy twin (HT)				
N.Sea		31	66	97	1,379,968	112,849	213,069	
GoM	387	61	123	606	2,953,484	410,797	1,294,141	
Other	61	35	281	444	4,992,684	462,364	1,223,944	
2007	448	96	435	1,147	9,326,136	986,010	2,731,154	
2006	439	91	426	1,116	9,023,207	895,259	2,531,180	
2005	451	84	439	1,128	8,490,290	883,433	2,417,885	
2004	433	80	431	1,089	8,187,376	853,489	2,292,876	
2003	454	86	444	1,139	8,486,838	867,326	2,464,477	

2007 world-wide offshore helicopter operational data details

	Hours per type helicopter				Passengers (PAX) per type helicopter				Number of flights per type helicopter			
	Single engine (SE)	Light twin (LT)		Total fleet	Single engine (SE)	Medium twin (MT)		Total fleet	Light twin (LT)	Medium twin (MT)		Total fleet
		Medium twin (MT)	Heavy twin (HT)			Medium twin (MT)	Heavy twin (HT)			Light twin (LT)	Medium twin (MT)	
N.Sea		24,120	88,729	112,849		238,238	1,141,730	1,379,968		96,195	116,874	213,069
GoM	280,683	27,617	81,895	410,797	1,618,689	172,026	225,119	2,953,484	1,019,611	153,402	31,019	1,294,141
Other	105,860	10,926	273,797	462,364	557,549	114,728	1,128,761	4,992,684	541,393	507,096	150,318	1,223,944
2007	386,543	38,543	379,812	986,010	2,176,238	286,754	2,495,610	9,326,136	1,561,004	756,693	298,211	2,731,154
2006	307,897	39,675	376,453	895,259	2,108,976	213,765	2,576,890	9,023,207	1,435,765	767,453	234,675	2,531,180
2005	316,427	35,456	363,427	883,433	1,943,657	193,426	2,315,342	8,490,290	1,376,456	746,567	203,456	2,417,885
2004	304,026	34,358	355,295	853,489	1,818,967	187,438	2,205,994	8,187,376	1,277,237	729,383	197,188	2,292,876
2003	312,541	34,706	357,187	867,326	2,199,661	200,837	1,862,801	8,486,838	1,259,183	856,186	257,738	2,464,477

2007 worldwide offshore helicopter fleet operational data

	Averages per helicopter		World	Averages per helicopter		World
	N.Sea	GoM		N.Sea	GoM	
	Passengers per day per 5 day week	5,308	11,360	35,870	678	860
Flights per day	584	3,546	7,483	2,136	2,381	
Average flight duration in min.	32	19	22	4,874	8,131	

2007 world-wide offshore helicopter accident data

Type Aircraft	Aircraft Category		Injury classification			Aircraft damages classification			Aviation accident rates		
	# Accidents	# Fatal	Injuries	Severity	Total Loss	# Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Ft Stages			
Single Eng	7	2	0	5	6	3	4	1.81	0.52	0.80	0.45
Light Twin	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Med Twin	1	1	0	1	0	0	1	0.26	0.26	0.17	0.13
Heavy Twin	2	2	0	4	0	0	2	1.10	1.10	2.26	0.67
2007 total	10	5	0	10	6	11	7	1.01	0.51	0.84	0.37
2006 total	14	4	4	7	10	11	8	1.56	0.45	0.88	0.55
2005 total	15	3	2	9	23	8	11	1.70	0.34	0.67	0.62
2004 total	12	6	3	9	9	25	9	1.41	0.70	2.19	0.52
2003 total	27	11	3	18	24	49	15	3.11	1.27	4.06	1.10

2007 GoM offshore helicopter accident data

Type Aircraft	Number of accidents Aircraft Category		Injuries			Injury classification			Aircraft damages classification			Aviation accident rates		
	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal TM Occupants	# Acc 100k Fh Stages
Single Eng	7	2	0	4	5	4	3	0	3	4	2.49	0.71	1.14	0.69
Light Twin	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Med Twin	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Heavy Twin	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2007 total	7	2	0	4	5	4	3	0	3	4	1.70	0.49	0.69	0.54
2006 total	6	1	1	4	3	5	2	1	1	4	1.48	0.25	0.48	0.48
2005 total	8	2	2	16	7	18	5	0	3	5	1.97	0.49	1.23	0.61
2004 total	10	4	2	14	5	4	15	0	3	7	2.77	1.11	4.02	0.79
2003 total	15	7	3	18	8	14	12	0	5	10	3.93	1.84	2.93	1.12

2007 North Sea offshore helicopter accident data

Type Aircraft	Number of accidents Aircraft Category		Injuries			Injury classification			Aircraft damages classification			Aviation accident rates		
	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal TM Occupants	# Acc 100k Fh Stages
Med Twin	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Heavy Twin	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2007 total	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2006 total	2	1	1	5	2	0	7	1	0	1	1.45	0.72	3.54	1.01
2005 total	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2004 total	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2003 total	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00

Five year world-wide offshore helicopter accident data

	Number of accidents Aircraft Category		Injuries			Injury Classification			Aircraft damages classification			Aviation accident rates			Industry fatal rates per 100M Exposure Hrs Passengers & Crew	
	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hrs	# Fatal Acc 100k Hrs	# Fatal TM Occupants	# Acc 100k Fh Stages	Accidents (IFAR)	Incidents (IFAIR)
2003 total	27	11	3	55	18	24	49	2	10	15	3.11	1.27	4.06	1.10	1,120	251
2004 total	12	6	3	25	9	9	25	0	3	9	1.41	0.70	2.19	0.52	566	136
2005 total	15	3	2	22	9	23	8	0	4	11	1.70	0.34	0.67	0.62	177	66
2006 total	14	4	4	14	7	10	11	1	5	8	1.56	0.45	0.88	0.55	237	86
2007 total	10	5	0	7	10	6	11	0	3	7	1.01	0.51	0.84	0.37	224	102
5 Yr Avg	16.0	5.8	2.4	24.6	10.6	14.4	20.8	0.8	5.2	10.0	1.80	0.65	1.73	0.65	444.7	126.2

Five year GoM offshore helicopter accident data

	Number Of Accidents Aircraft Category		Injury Classification			Aircraft damages classification			Aviation Accident rates		
	# Accidents	# Fatal	# Eng Related	Injuries	Severity	Minor	Major	Total Loss	# Acc 100k Hrs	# Fatal 1M Occupants	# Acc 100k Fh Stages
2003 total	15	7	3	18	14	0	5	10	3.93	2.93	1.12
2004 total	10	4	2	14	4	0	3	7	2.77	4.02	0.79
2005 total	8	2	2	16	18	0	3	5	1.97	1.23	0.61
2006 total	6	1	1	4	5	1	1	4	1.48	0.48	0.48
2007 total	7	0	0	4	4	0	3	4	1.70	0.69	0.54
5 Yr-Avg	9.2	2.8	1.6	11.2	9.0	0.2	3.0	6.0	2.05	1.34	0.64

Five year North Sea offshore helicopter accident data

	Number Of Accidents Aircraft Category		Injury Classification			Aircraft damages classification			Aviation accident rates		
	# Accidents	# Fatal	# Eng Related	Injuries	Severity	Minor	Major	Total Loss	# Acc 100k Hrs	# Fatal 1M Occupants	# Acc 100k Fh Stages
2003 total	0	0	0	0	0	0	0	0	0.00	0.00	0.00
2004 total	0	0	0	0	0	0	0	0	0.00	0.00	0.00
2005 total	0	0	0	0	0	0	0	0	0.00	0.00	0.00
2006 total	2	1	1	5	2	1	0	1	1.45	3.54	1.01
2007 total	0	0	0	0	0	0	0	0	0.00	0.00	0.00
5 Yr-Avg	0.8	0.2	0.2	1.0	0.0	0.2	0.4	0.2	0.58	0.71	0.40

1997-2007 world-wide offshore helicopter accident causes/info

Type Aircraft	Engine related	Bird Strike	Lightning	Flight into terrain, water	Tie down proc.	External load proc.	Obstacle strike	Main rotor/ xmsr/main driveshaft	Tail rotor	Unk.	Fuel qual/ mgmt	Control malf.	Wx	Pax cont.	Pilot proc	Mid air	Loose cargo	# Fatal due to single eng. malf.
Single Eng	0	0	0	0	1	0	3	0	0	0	0	0	0	0	2	0	1	0
Light Twin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Med. Twin	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Heavy Twin	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2007 total	0	0	0	1	1	0	3	0	0	1	0	1	0	0	2	0	1	0
1997-2006	24	1	4	10	3	1	11	3	15	7	9	8	6	8	16	3	2	13

1 of the 10 2007 accidents occurred at night, with 6 fatalities

1997-2007 GoM offshore helicopter accident causes/info

Type Aircraft	Engine related	Bird strike	Flight into terrain water or obstacle	Tail rotor	Tie down proced.	Fuel starv.	Fuel qual.	Severe weather	Pax con.	Pilot proc	Mid air	Unk.	Obstacle strike	Loose cargo	# Fatal due to single eng malf.
Single Eng	0	0	0	0	1	0	0	0	0	2	0	0	3	1	0
Light Twin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Med. Twin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Twin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007 total	0	0	0	0	1	0	0	0	0	2	0	0	3	1	0
1997-2006	15	1	12	8	2	4	4	3	4	12	2	5	5	4	6

1997-2007 North Sea offshore helicopter accident causes/info

	Engine related	Lightning	Main rotor or xmsn failure	Other component failure	Flight into terrain or water	Pilot procedure	Severe weather
Medium Twin	0	0	0	0	0	0	0
Heavy Twin	0	0	0	0	0	0	0
2007 total	0	0	0	0	0	0	0
1997-2006	2	4	1	1	2	1	3

2007 seismic helicopter accident data

Type Aircraft	Number of accidents Aircraft Category		Injury classification			Aircraft damages classification			Aviation accident rates				
	# Accidents	# Fatal	# Eng Related	Injuries Pax	Crew	Severity Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Ft Stages
Single Eng	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2007 total	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2006 total	3	2	0	3	2	2	2	1	0	4.31	2.87	10.84	3.08
2005 total	4	0	2	4	2	6	0	3	0	9.87	0.00	0.00	3.76
2004 total	1	0	0	0	1	1	0	0	0	2.59	0.00	0.00	1.01
2003 total	5	1	2	6	3	7	2	1	0	12.97	2.59	11.28	5.06

2007 seismic helicopter accident causes/info

Type	Engine related	Cable in TR	Tail rotor	Obstacle strike	Flight into terrain	Snagged load	Rapid refuel proc.	Fuel proc.	Hostile fire	Unk.	Pilot proc.	Hard landing	Over load acct	# Fatal due to single eng malf.
Single Eng	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998-2006	16	3	3	5	2	4	1	1	1	4	4	1	1	3

2007 geophysical helicopter accident data

Type Aircraft	Number of accidents Aircraft Category		Injury classification			Aircraft damages classification			Aviation accident rates					
	# Accidents	# Fatal	# Eng related	Injuries Pax	Crew	Severity Minor	Serious	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Ft Stages
2007 total	1	0	1	0	0	0	0	0	0	0	1	8.32	0.00	9.04
1999-2006 total	1	1	0	1	1	0	0	2	0	0	1	8.88	8.88	22.48
1998 total	1	1	0	1	1	0	0	2	0	0	1	8.88	8.88	12.66

1998-2007 geophysical helicopter accident causes/info

	Engine Related	Injuries due to engine malfunction	Flight into terrain, water or obstacles
Single Eng (07)	1	0	0
Single Eng (98)	0	0	1

2007 pipeline helicopter accident data

Type Aircraft	Number of accidents		Injury classification			Severity			Aircraft damages classification			Aviation accident rates		
	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc. 100k Hours	# Fatal IM Occupants	# Acc 100k Fh Stages
Single Eng	2	1	1	1	0	0	1	0	1	1	8.95	4.48	34.73	12.78
Medium Twin	1	1	0	3	1	1	3	0	0	1	16.04	16.04	238.28	88.18
2007 total	3	2	1	4	1	1	4	0	1	2	8.65	5.77	75.43	14.29
2006 total	4	1	0	4	2	1	5	0	2	2	12.10	3.02	31.35	17.31
2005 total	4	4	1	12	6	6	12	0	0	4	14.13	14.13	76.85	17.82
2004 total	4	0	1	0	1	1	0	1	3	0	15.28	0.00	0.00	18.43
2003 total	2	1	0	4	2	5	1	0	1	1	5.76	2.88	5.16	3.45

1998-2007 pipeline helicopter accident causes/info

Type Aircraft	Engine Related		Pilot Procedure		Flight into terrain, water or obstacles		Control problems		Obstacle strike		# Fatal due to single engine malfunction	
	Engine Related	Fuel Quality	Pilot Procedure	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Single Eng	1	0	0	0	0	0	0	0	1	0	0	1
Heavy Twin	0	0	0	0	0	0	0	0	0	0	1	0
2007	1	0	0	0	0	0	0	0	1	1	1	1
1998 - 2006	5	1	13	4	9	1	3	1	1	3	5	5

2007 other industry helicopter accident data

Type Aircraft	Number of accidents		Injury classification			Severity			Aircraft damages classification			Aviation accident rates		
	# Accidents total ins	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc. 100k Hours	# Fatal IM Occupants	# Acc 100k Fh Stages
Single piston	1	1	0	2	1	0	3	0	0	1	26.65	8.88	6.03	8.97
Single turbine	3	1	1	7	5	10	2	0	0	3	16.04	16.04	72.87	88.18
Heavy twin	1	1	0	3	3	0	6	0	0	1	10.23	6.14	31.76	5.81
2007 total	5	3	1	12	9	10	11	0	0	5	12.11	4.04	12.55	7.55
2006 total	6	2	3	7	4	7	4	0	3	3	8.81	0.00	0.00	5.08
2005 total	4	0	2	1	1	2	0	0	3	1	6.79	2.26	3.43	3.98
2004 total	3	1	0	9	4	12	1	1	1	1	1.87	0.00	0.00	1.10
2003 total	1	0	0	5	0	5	0	0	0	1				

1998-2007 other industry support helicopter accident causes/info

Type Aircraft	Pilot procedure		Flight into terrain, water		Hostile act		Fuel mgmt		Obstacle strike		Other technical		Tail rotor		# Fatal due to single engine malfunction	
	Pilot procedure	Engine related	Flight into terrain, water	Unknown	Hostile act	Fuel mgmt	Obstacle strike	Other technical	Tail rotor	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Single piston	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Single turbine	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medium twin	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2007 total	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
1998-2006	10	9	5	1	1	1	4	1	1	1	1	1	1	1	1	0

Appendix B – Accident detail

Helicopters 2007

Date	Activity	Model	Type	Location	Member?		Injuries		Total		Narrative
					OGP	ASC	Pax	Crew	Injuries	Fatal	
30 Jan	Offshore	AS332L2	HT	Malaysia			1	0	0	1	Believed to be a technical fault with hydraulic line causing fuselage fire
12 Feb	Offshore	EC120B	SE	GoM			1	1	0	2	Hit flare boom on landing
28 Feb	Pipelines	B212	MT	Peru			3	1	1	3	Unknown. Peruvian Air Force B212 was destroyed near Ccollpa, Ayachucho, Peru when it crashed in heavily forested terrain during a pipeline survey during daylight hours
25 Mar	Other	M18	HT	Russia			3	3	0	6	Adverse weather
08 May	Pipeline	AS313	SE	US			0	0	0	0	Pilot hit wires after landing in a field
11 May	Offshore	B206B	SE	GoM			0	1	1	0	Loss of tail rotor control on takeoff from helideck
05 Jun	Other	B206L3	SE	Colombia			3	2	3	2	Limited information, fatal recon flight
12 Jul	Pipeline	AS350B1	SE	Ireland			1	0	0	1	Helicopter was inspecting a gas pipeline, failure of the engine assembly gearbox spiral bevel gear resulting in loss of fuel flow.
14 Jul	Geophys	AS315B	SE	US			0	0	0	0	Power loss and hard landing while long-lining
22 Jul	Offshore	B206L3	SE	GoM			0	0	0	0	Helo apparently hit some solar panels attached to the safety fence and angled above the deck level (20x25 deck)
03 Aug	Offshore	B412EP	MT	Nigeria	Yes	Yes	0	1	0	1	Unknown, aircraft struck the ground on an unauthorised flight
12 Aug	Offshore	B206	SE	GoM			0	1	1	0	Pilot failed to secure a sign shade inside the helicopter which was sucked out of a window and damaged the tail rotor
10 Aug	Offshore	B407	SE	GoM			0	0	0	0	Helo struck a 2d helo parked on the helideck, 40 foot deck
11 Oct	Offshore	EC130	SE	GoM			0	1	1	0	Tried to depart tied down
12 Oct	Offshore	E130	HT	Azerbaijan			2	4	0	6	Helo crashed shortly after takeoff on night medevac flight from a drill rig
20 Oct	Other	B206B3	SE	US	Yes	Yes	1	1	2	0	While cleaning power line insulators, suffered power loss and hard landing
06 Nov	Other	R44	SP	US			2	1	0	3	Hit power lines on departure at night from an oil site
13 Dec	Other	B204	SE	Peru			3	2	5	0	Unknown crash reasons during takeoff from an oil camp, descended into tree
30 Dec	Offshore	B206	SE	GoM			3	1	3	1	On approach to platform entered steeling with power and unable to recover, weather was below OGP VFR minima.
Totals							23	20	17	26	

3 Engine Related, 1 Other Technical, 2 CFITW, 1 Tiedown Procedure, 5 Obstacle Strike,
4 Unknown, 3 Pilot Procedure (loss of control or improper procedure)

Airplanes 2007

Date	Activity	Model	Type	Location	Member?		Injuries		Severity		Narrative
					OGP	ASC	Pax	Crew	Injuries	Fatal	
04 Jan	Pipeline	C182	SP	US	Yes	Yes	0	2	0	2	CFIT
31 Mar	Other	C206	SP	Ethiopia	Yes	Yes	2	1	2	1	Loss of engine power and off-airport landing
24 May	Offshore	C206	SP	US	Yes	Yes	2	1	2	1	On takeoff, floatplane collision with a boat that came from a side canal
20 Jun	Pipeline	C206	SP	US			0	0	0	0	Fuel Starvation
13 Sep	Other	B36	SP	US			2	1	0	3	Unknown at present
26 Sep	Geophys	F406	TP	Uganda			0	2	0	2	Crashed shortly after takeoff
28 Nov	Pipeline	C182Q	SP	US			0	1	0	1	Crashed for Unknown reasons
Totals							6	8	4	10	

1 CFIT, 1 Power Loss, 2 Pilot Procedure (loss of control or improper procedure), 3 unknown

Totals all aircraft 2007

Overall summary

Accidents: 25

Passengers injured: 29

Crew injured: 28

Non-fatal injuries: 21

Fatalities: 36

What is OGP?

The International Association of Oil & Gas Producers encompasses the world's leading private and state-owned oil & gas companies, their national and regional associations, and major upstream contractors and suppliers.

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- To work on behalf of the world's oil and gas producing companies to promote responsible and profitable operations

Mission

- To represent the interests of oil and gas producing companies to international regulators and legislative bodies
- To liaise with other industry associations globally and provide a forum for sharing experiences, debating emerging issues and establishing common ground to promote cooperation, consistency and effectiveness
- To facilitate continuous improvement in HSE, CSR, engineering and operations

Objectives

- To improve understanding of our industry by being visible, accessible and a reliable source of information
- To represent and advocate industry views by developing effective proposals
- To improve the collection, analysis and dissemination of data on HSE performance
- To develop and disseminate best practice in HSE, engineering and operations
- To promote CSR awareness and best practice



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