

# 2000 OGP WORLD-WIDE OIL INDUSTRY HELICOPTER OPERATIONS AND SAFETY REVIEW

## 2000 WORLD-WIDE HELICOPTER OPERATIONAL DATA SUMMARY

2000 YEAR	TYPE & NUMBER OF HELICOPTERS					PASSENGERS CARRIED	HOURS FLOWN	NUMBER OF FLIGHTS
	SINGLE ENGINE (SE)	LIGHT TWIN (LT)	MEDIUM TWIN (MT)	HEAVY TWIN (HT)	TOTAL FLEET			
OFFSHORE	433	102	403	162	1,100	9,337,352	891,844	2,657,031
SEISMIC	40	3	8	1	52	86,379	28,231	127,492
GEOPHYSICAL	7	0.2	2	0	9	0	4,121	8,209
PIPELINE	19	4	4	6	33	87,264	12,908	20,740
OTHER SUPPORT	15	9	20	14	58	582,933	38,291	131,179
<b>2000 World-Wide</b>	<b>514</b>	<b>118</b>	<b>437</b>	<b>183</b>	<b>1,252</b>	<b>10,093,928</b>	<b>975,395</b>	<b>2,944,651</b>
1999 WORLD-WIDE	598	114	430	191	1,333	8,910,469	917,457	3,101,319
1998 WORLD-WIDE	641	123	481	193	1,438	10,284,263	1,174,476	3,699,876

## 2000 WORLD-WIDE HELICOPTER OPERATIONAL DATA DETAILS

2000 YEAR	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)	TOTAL FLEET	SINGLE ENGINE (SE)	LIGHT TWIN (LT)	MEDIUM TWIN (MT)	HEAVY TWIN (HT)	TOTAL FLEET	SINGLE ENGINE (SE)	LIGHT TWIN (LT)	MEDIUM TWIN (MT)	HEAVY TWIN (HT)	TOTAL FLEET
OFFSHORE	361,933	53,894	308,615	167,402	891,844	3,064,516	404,985	3,679,401	2,188,451	9,337,352	1,414,035	195,493	833,004	214,499	2,657,031
SEISMIC	25,718	792	1,531	190	28,231	72,564	779	11,949	1,087	86,379	122,298	938	4,104	152	127,492
GEOPHYS.	3,135	150	0	836	4,121	Not Normally Carried					5,385	3	1,730	1,091	8,209
PIPELINE	7,786	886	1,355	2,881	12,908	10,275	2,226	17,106	57,657	87,264	8,655	611	5,510	5,964	20,740
OTHER SPT	8,711	3,238	15,979	10,363	38,291	41,505	12,873	348,243	180,312	582,933	22,372	3,167	74,189	31,451	131,179
<b>2000</b>	<b>407,283</b>	<b>58,960</b>	<b>327,480</b>	<b>181,672</b>	<b>975,395</b>	<b>3,188,860</b>	<b>420,863</b>	<b>4,056,699</b>	<b>2,427,507</b>	<b>10,093,928</b>	<b>1,572,745</b>	<b>200,212</b>	<b>918,537</b>	<b>253,157</b>	<b>2,944,651</b>
1999	381,474	52,070	306,895	177,018	917,457	2,223,792	305,432	4,006,764	2,374,482	8,910,469	1,449,221	156,686	1,088,68	315,729	3,010,319
1998	476,427	71,027	433,153	193,869	1,174,476	2,671,556	377,518	4,860,980	2,374,209	10,284,263	1,892,480	217,607	1,295,89	293,892	3,699,876

## 2000 WORLD-WIDE HELICOPTER FLEET OPERATIONAL DATA

Averages Per Helicopter	Offshore	Seismic	Geo Physical	Pipe- line	Other Support	World -Wide	Averages Per Helicopter	Offshore	Seismic	Geo Physical	Pipe- line	Other Support	World -Wide
Pax per Day/5 Day Week	35,913	332	0	336	2,242	38,823	Annual Hours Per Aircraft	812	551	458	391	661	781
Flights Per Day	7,280	349	22	57	359	8,068	Flights Per Aircraft	2,419	2,490	912	628	2,266	2,357
Avg. Flight Duration in Min.	20	13	30	37	18	20	Pax Flown Per Year	8,499	1,687	0	2,644	10,068	8,078

Data Extracted from the Following:

1. Helicopter Safety Advisory Conf (HSAC) & Int'l Airborne Geophysics Safety Assoc. (IAGSA) Annual Helicopter Activity Reports.
2. Annual activity for helicopter operations generated by members of the Oil and Gas Producers Association and from 101 helicopter operators.

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 is believed to be representative; however, the OGP assumes no liability for accuracy or completeness.

## 2000 OGP

### 2000 WORLD-WIDE HELICOPTER ACCIDENT DATA

NUMBER OF ACCIDENTS				INJURY CLASSIFICATION				AIRCRAFT DAMAGES			AVIATION ACCIDENT			
Aircraft Category				Injuries		Severity		Classification			Rates			
Type Aircraft	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Flt Stages
<b>Single Eng</b>	21	6	4	16	20	28	8	1	2	18	5.16	1.47	1.68	1.34
<b>Light Twin</b>	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
<b>Med Twin</b>	5	3	0	4	6	1	9	0	2	3	1.53	1.65	1.53	0.54
<b>Heavy Twin</b>	2	0	0	4	2	6	0	1	1	0	1.10	0.00	0.00	0.79
<b>2000 Totals</b>	<b>28</b>	<b>9</b>	<b>4*</b>	<b>24</b>	<b>28</b>	<b>35</b>	<b>17</b>	<b>2</b>	<b>5</b>	<b>21</b>	<b>2.87</b>	<b>0.92</b>	<b>1.20</b>	<b>0.95</b>
1999 Totals	25	8	6	61	18	29	50	1	10	14	2.72	0.87	3.80	0.83
1998 Totals	22	9	5	37	23	13	47	0	5	19	1.87	0.77	3.00	0.62

\* 2 each seismic, offshore

### 2000 WORLD-WIDE HELICOPTER ACCIDENT DATA BY ACTIVITY

NUMBER OF ACCIDENTS				INJURY CLASSIFICATION				AIRCRAFT DAMAGES			AVIATION ACCIDENT				Industry Fatal Rates per 100M Exposure Hrs Passengers & Crew	
Aircraft Category				Injuries		Severity		Classification			Rates				Accidents (IFAR)	Incidents (IFAIR)
Type Aircraft	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Flt Stages		
<b>Offshore</b>	16	7	2	7	17	11	13	1	2	13	1.79	0.78	1.00	0.60	289	155
<b>Seismic</b>	7	1	2	5	4	6	3	1	2	4	24.80	3.54	13.75	5.49	6,113	2,038
<b>GeoPhysics</b>	No Accidents Reported															
<b>Pipeline</b>	4	1	0	8	5	12	1	0	0	4	30.99	7.75	8.37	19.29	1,399	1,399
<b>Other Spt</b>	1	0	0	4	2	6	0	0	1	0	2.61	0.00	0.00	0.76	0.00	0.00
<b>2000</b>	<b>28</b>	<b>9</b>	<b>4</b>	<b>24</b>	<b>28</b>	<b>35</b>	<b>17</b>	<b>2</b>	<b>5</b>	<b>21</b>	<b>2.87</b>	<b>0.92</b>	<b>1.20</b>	<b>0.95</b>	<b>352</b>	<b>186</b>
1999 Totals	25	8	6	61	18	29	50	1	10	14	2.72	0.87	3.80	0.87	1214	194
1998 Totals	22	9	5	37	23	13	47	0	5	19	1.87	0.77	3.00	0.62	928	197

### 2000 WORLD-WIDE HELICOPTER ACCIDENT CAUSES/INFO

	Ttl	Engine Related	Other Tech	Lightning	Flight Into Terrain, Water, or Obstacle	Tie Down Proced	External Load Proced.	Control Malf.	Obstacle Strike	Mid Air	Pilot Proc.	Fuel Starv	Refuel Proc.	Pax Cont.	Wx	Acft Over Load	Hard Ldg	Helideck Design or Size Issues	#Fatal Due To Engine Malf.
<b>Single Eng</b>	21	4	4	0	3	1	1	0	2	0	5	1	0	0	0	0	0	0	1
<b>Light Twin</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Med. Twin</b>	5	0	1	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0
<b>Hvy. Twin</b>	2	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
<b>2000 Ttl</b>	<b>28</b>	<b>4</b>	<b>5*</b>	<b>1</b>	<b>5 (2 night)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
1999 Ttl	25	6	4	1	7 (1 night)	0	0	0	0	0	0	0	2	2	3	0	0	0	1

## 2000 OGP

### 2000 WORLD-WIDE OFFSHORE HELICOPTER OPERATIONAL DATA SUMMARY

YEAR	NUMBERS of HELICOPTERS by TYPE					PASSENGERS CARRIED	HOURS FLOWN	NUMBER OF FLIGHTS
	SINGLE ENGINE (SE)	LIGHT TWIN (LT)	MEDIUM TWIN (MT)	HEAVY TWIN (HT)	TOTAL FLEET			
N SEA	0	1	48	82	131	1,750,079	146,097	246,223
GOM	385	76	106	15	582	3,451,511	441,908	1,394,679
OTHER	48	25	249	65	387	4,129,762	303,839	1,016,129
<b>2000 WORLD-WIDE</b>	<b>433</b>	<b>102</b>	<b>403</b>	<b>162</b>	<b>1,100</b>	<b>9,337,352</b>	<b>891,844</b>	<b>2,657,031</b>
1999 WORLD-WIDE	473	95	386	152	1105	8,097,983	828,911	2,767,737
1998 WORLD-WIDE	465	117	444	181	1208	9,764,538	1,029,503	3,029,243
1997 WORLD-WIDE	479	165	398	164	1206	9,771,259	950,343	3,184,797

### 2000 WORLD-WIDE OFFSHORE HELICOPTER OPERATIONAL DATA DETAILS

YEAR	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)	TOTAL FLEET	SINGLE ENGINE (SE)	LIGHT TWIN (LT)	MEDIUM TWIN (MT)	HEAVY TWIN (HT)	TOTAL FLEET	SINGLE ENGINE (SE)	LIGHT TWIN (LT)	MEDIUM TWIN (MT)	HEAVY TWIN (HT)	TOTAL FLEET
N SEA	0	314	42,722	103,061	146,097	0	79	458,975	1,291,025	1,750,079	0	306	127,406	118,511	246,223
GOM	316,029	38,126	79,736	8,017	441,908	2,318,379	206,094	759,015	168,024	3,451,511	1,051,258	134,035	192,289	17,197	1,394,679
OTHER	45,904	15,454	186,157	56,324	303,839	746,137	198,812	2,461,411	729,402	4,129,762	362,777	61,152	513,309	78,791	1,016,129
<b>2000</b>	<b>361,933</b>	<b>53,894</b>	<b>308,615</b>	<b>167,402</b>	<b>891,844</b>	<b>3,064,516</b>	<b>404,985</b>	<b>3,679,401</b>	<b>2,188,451</b>	<b>9,337,352</b>	<b>1,414,035</b>	<b>195,493</b>	<b>833,004</b>	<b>214,499</b>	<b>2,657,031</b>
1999	326,514	47,341	287,584	167,472	828,911	2,173,924	277,607	3,624,427	2,022,025	8,097,983	1,376,632	147,406	981,547	262,152	2,767,737
1998	372,688	68,152	404,058	184,605	1,029,503	2,442,448	361,797	4,598,209	2,362,044	9,764,538	1,404,852	213,711	1,204,177	269,503	3,029,243
1997	359,341	96,270	301,671	193,061	950,343	2,753,768	686,145	4,159,934	2,171,412	9,771,259	1,561,146	330,917	1,050,120	242,614	3,184,797

### 2000 WORLD-WIDE OFFSHORE HELICOPTER FLEET OPERATIONAL DATA

Averages Per Helicopter	N SEA	GOM	World	Averages Per Helicopter	N SEA	GOM	World
Passengers per Day per 5 Day Week	6,731	13,275	35,913	Annual Hours Per Aircraft	1,120	760	812
Flights Per Day	675	3,821	7,280	Flights Per Aircraft	1,888	2,399	2,419
Average Flight Duration in Min.	36	19	20	Passengers Flown Per Year	13,421	5,936	8,499

**2000 OGP****2000 WORLD-WIDE OFFSHORE HELICOPTER ACCIDENT DATA**

NUMBER OF ACCIDENTS				INJURY CLASSIFICATION				AIRCRAFT DAMAGES			AVIATION ACCIDENT			
Aircraft Category				Injuries		Severity		Classification			Rates			
Type Aircraft	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Flt Stages
Single Eng	10	4	2	3	11	10	4	0	0	10	2.76	1.11	0.89	0.71
Light Twin	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Med Twin	5	3	0	4	6	1	9	0	2	3	1.62	0.97	1.68	0.60
Heavy Twin	1	0	0	0	0	0	0	1	0	0	0.60	0.00	0.00	0.47
<b>2000 Totals</b>	<b>16</b>	<b>7</b>	<b>2</b>	<b>7</b>	<b>17</b>	<b>11</b>	<b>13</b>	<b>1</b>	<b>2</b>	<b>13</b>	<b>1.79</b>	<b>0.78</b>	<b>1.00</b>	<b>0.60</b>
1999 Totals	17	5	3	38	11	23	26	1	7	9	2.05	0.60	2.10	0.61

**2000 GOM OFFSHORE HELICOPTER ACCIDENT DATA**

NUMBER OF ACCIDENTS				INJURY CLASSIFICATION				AIRCRAFT DAMAGES			AVIATION ACCIDENT			
Aircraft Category				Injuries		Severity		Classification			Rates			
Type Aircraft	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Flt Stages
Single Eng	9	3*	2	3	8	8	3	0	1	8	2.85	0.95	0.89	0.86
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
<b>2000 Totals</b>	<b>9</b>	<b>3*</b>	<b>2</b>	<b>3</b>	<b>8</b>	<b>8</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>2.04</b>	<b>0.68</b>	<b>0.59</b>	<b>0.65</b>
1999 Totals	9	1	2	7	4	9	2	2	2	5	2.29	0.25	0.50	0.62

\* One engine related Note, there was one single engine ditching due to engine failure, not recorded as an accident.

**2000 NORTH SEA OFFSHORE HELICOPTER ACCIDENT DATA**

NUMBER OF ACCIDENTS				INJURY CLASSIFICATION				AIRCRAFT DAMAGES			AVIATION ACCIDENT			
Aircraft Category				Injuries		Severity		Classification			Rates			
Type Aircraft	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Flt Stages
Single Eng	No Activity													
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	1	0	0	0	0	0	0	1	0	0	0.97	0.00	0.84	0.00
<b>2000 Totals</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0.68</b>	<b>0.00</b>	<b>0.00</b>	<b>0.41</b>

1999 Totals	2	0	0	0	0	0	0	0	0	2	0	1.37	0.00	0.00	0.74
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### SIX YEAR WORLD-WIDE OFFSHORE HELICOPTER ACCIDENT DATA

Number Of Accidents				Injury Classification				Aircraft Damages			Aviation Accident				Industry Fatal Rates Per	
Aircraft		Category		Injuries		Severity		Classification			Rates				100M Exposure Hrs Passengers & Crew	
Year	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hrs	# Fatal Acc 100k Hrs	# Fatal 1M Occupants	# Acc 100k Flts	Accidents (IFAR)	Incidents (IFAIR)
1995	10	6	NR	35	8	19	24	0	5	5	1.36	0.82	2.10 E	0.41	671	168
1996	15	7	NR	8	8	0	16	1	3	11	1.82	0.85	1.20 E	0.59	432	189
1997	11	5	2	41	13	12	42	1	3	8	1.16	0.53	2.90	0.35	963	115
1998	11	6	2	25	16	6	35	0	2	11	1.07	0.58	2.40	0.36	709	122
1999	17	5	3	38	11	23	26	1	7	9	2.05	0.60	2.10	0.61	701	135
2000	16	7	2	7	17	11	13	1	2	13	1.79	0.78	1.00	0.60	289	155
6 Yr Avg	13.3	6.0	2.3	25.7	12.2	11.8	26.0	0.7	3.7	9.5	1.54	0.69	1.95	0.49	628	147

### SIX YEAR GOM OFFSHORE HELICOPTER ACCIDENT DATA

Number Of Accidents				Injury Classification				Aircraft Damages			Aviation Accident			
Aircraft		Category		Injuries		Severity		Classification			Rates			
Year	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hrs	# Fatal Acc 100k Hrs	# Fatal 1M Occupants	# Acc 100k Flt Stages
1995	5	3	NR	7	3	2	8	1	1	3	1.21	0.73	1.40 E	0.33
1996	7	4	NR	7	4	0	11	1	2	4	1.58	0.91	1.90 E	0.42
1997	6	1	1	6	6	11	1	1	2	4	1.27	0.21	0.20	0.35
1998	3	1	1	0	2	1	1	0	1	3	0.66	0.22	0.20	0.22
1999	9	1	2	7	4	9	2	1	4	4	2.29	0.25	0.50	0.62
2000	9	3	2	3	8	8	3	0	1	8	2.04	0.68	0.59	0.65
6 Yr Avg	6.5	2.2	1.5	5.0	4.5	5.2	4.3	0.7	1.8	4.3	1.51	0.50	0.80	0.43

### SIX YEAR NORTH SEA OFFSHORE HELICOPTER ACCIDENT DATA

Number Of Accidents				Injury Classification				Aircraft Damages			Aviation Accident			
Aircraft		Category		Injuries		Severity		Classification			Rates			
Year	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hrs	# Fatal Acc 100k Hrs	# Fatal 1M Occupants	# Acc 100k Flt Stages
1995	2	0	0	0	0	0	0	0	2	0	1.65 E	0.00	0.00	0.85 E
1996	2	0	0	0	0	0	0	0	1	1	1.26 E	0.00	0.00	1.20 E
1997	3	2	1	11	2	0	13	0	1	2	1.78	1.19	4.90	1.08
1998	1	0	0	0	0	0	0	0	1	0	0.61	0.00	0.00	0.39
1999	2	0	0	0	0	0	0	0	2	0	1.37	0.00	0.00	0.74
2000	1	0	0	0	0	0	0	1	0	0	0.68	0.00	0.00	0.41

6 Yr Avg	1.8	0.3	0.2	1.8	0.3	0	2.2	0.2	1.2	0.5	1.23	0.20	0.82	0.78
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### 2000 WORLD-WIDE OFFSHORE HELICOPTER ACCIDENT CAUSES/INFO

	Engine Related	Bird Strike	Light -ning	Flight Into Terrain, Water Or Obstacle	Tie Down Proc.	External Load Proc.	Obstacle Strike	Tail Rotor	Unk.	Fuel Proc	Control Malf.	Wx	Pax Cont.	Pilot Proc	Mid Air	Helideck Design or Size Issues	# Fatal Due To Single Eng. Malf.
Single Eng	2	0	0	1*	1	0	0	2	1	1	0	0	0	2	0	0	1***
Light Twin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Med. Twin	0	0	0	2*	0	0	1	0	1	0	1	0	0	0	0	0	0
Heavy Twin	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>2000 Totals</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>3 (2 night)</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1***</b>
97-99 Totals	7	1	3	11 (6 night)	1	1	0	3	0	1	4	3	1	0	3	0	1**

\* at night

\*\* Angola \*\* GOM

### 1998-2000 GOM OFFSHORE HELICOPTER ACCIDENT CAUSES/INFO

	Engine Related	Bird Strike	Flight Into Terrain Water or Obstacle	Tail Rotor	Tie Down Procedure	Fuel Starvation	Severe Weather	Pax Con.	Pilot Proc	Mid Air	Unk.	Obstacle Strike	Helideck Design or Size Issues	# Fatal Due To Single Eng Malf.
Single Eng	2	0	1	2	0	1	0	0	2	0	1	0	0	1**
<b>2000</b>	<b>2</b>	<b>0</b>	<b>1 (Night SE)</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
1997-1999	4	1	5	1	1	0	2	1	0	2	0	0	0	0

\*\* Engine failure with apparent inability to maintain rotor RPM

### 1998-2000 NORTH SEA OFFSHORE HELICOPTER ACCIDENT CAUSES/INFO

	Engine Related	Lightning	Flight Into Terrain Or Water	Severe Weather	Helideck Design or Size Issues
Medium Twin	0	0	0	0	0
Heavy Twin	0	1	0	0	0
<b>2000</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>
1997-1999	1	3	1	1	0

# 2000 OGP

## 2000 SEISMIC HELICOPTER ACCIDENT DATA

NUMBER OF ACCIDENTS				INJURY CLASSIFICATION				AIRCRAFT DAMAGES			AVIATION ACCIDENT			
Aircraft Category				Injuries		Severity		Classification			Rates			
Type Aircraft	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Flt Stages
Single Eng	7	1	2	3	3	6	3	1	2	4	27.22	3.89	40.10	5.72
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
<b>2000 Totals</b>	<b>7</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>24.80</b>	<b>3.54</b>	<b>13.75</b>	<b>5.49</b>
1999 Totals	6	2	3	1	4	1	4	0	3	3	16.91	5.64	22.50	6.97
1998 Totals	7	0	3	3	4	7	0	0	3	4	8.91	0.00	0.00	1.59

## 2000 SEISMIC HELICOPTER ACCIDENT CAUSES/INFO

	Engine Related	Tail Rotor	Obstacle Strike	Flight into Terrain	Snagged Load	Rapid Refuel Proc.	Fuel Proc.	Unknown	Pilot Proc.	Hard Landing	Over Loaded Aircraft	# Fatal Due To Single Eng Malf.
Single Eng	2	1	2	0	1	0	0	0	1	0	0	0
<b>2000</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>
1998-1999	6	0	0	1	1	1	1	1	0	1	1	0

## 2000 GEOPHYSICAL HELICOPTER ACCIDENT DATA

NUMBER OF ACCIDENTS				INJURY CLASSIFICATION				AIRCRAFT DAMAGES			AVIATION ACCIDENT				
Aircraft Category				Injuries		Severity		Classification			Rates				
Type Aircraft	# Accidents	# Fatal	# Eng Related	Pax	Crew	Minor	Serious	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Flt Stages
<b>2000 Totals</b>	<b>NO ACCIDENTS</b>														
1999 Totals	NO ACCIDENTS														
1998 Totals	1	1	0	1	1	0	0	2	0	0	1	8.88	8.88	22.48	12.66

## 1998-2000 GEOPHYSICAL HELICOPTER ACCIDENT CAUSES/INFO

	Engine Related	Injuries Due To Engine Malfunction	Flight Into Terrain, Water Or Obstacles

Single Eng (98)	0	0	1
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## 2000 OGP

### 2000 PIPELINE HELICOPTER ACCIDENT DATA

NUMBER OF ACCIDENTS				INJURY CLASSIFICATION				AIRCRAFT DAMAGES			AVIATION ACCIDENT			
Aircraft Category				Injuries		Severity		Classification			Rates			
Type Aircraft	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Flt Stages
Single Eng	4	1	0	8	5	12	1	0	0	4	51.37	12.84	52.83	46.22
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
<b>2000 Totals</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>5</b>	<b>12</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>30.99</b>	<b>7.75</b>	<b>8.37</b>	<b>19.29</b>
1999 Totals	1	0	0	0	0	0	0	0	1	0	7.47	0.00	0.00	2.89
1998 Totals	2	1	0	3	1	0	4	0	0	2	17.48	8.74	4.92	2.86

### 1998-2000 PIPELINE HELICOPTER ACCIDENT CAUSES/INFO

	Engine Related	Pilot Procedure	Flight Into Terrain, Water Or Obstacles	Control Problems	# Fatal Due To Single Engine Malfunction
Single Engine (2000)	0	2	2	0	0
Heavy Twin (99)	0	0	1	0	0
Medium Twin (98)	0	0	0	2	0

### 2000 OTHER INDUSTRY HELICOPTER ACCIDENT DATA

NUMBER OF ACCIDENTS				INJURY CLASSIFICATION				AIRCRAFT DAMAGES			AVIATION ACCIDENT			
Aircraft Category				Injuries		Severity		Classification			Rates			
Type Aircraft	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Major	Total Loss	# Acc 100k Hours	# Fatal Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Flt Stages
Single Eng	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
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	1	0	0	4	2	6	0	0	0	1	9.65	0.00	0.00	3.18
<b>2000 Totals</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2.61</b>	<b>0.00</b>	<b>0.00</b>	<b>0.76</b>
1999 Totals	1	1	0	22	3	5	20	0	0	1	3.22	3.22	2.89	1.04
1998 Totals	1	1	0	5	1	0	6	0	0	1	2.29	2.29	1.29	0.81

### 1998-2000 OTHER INDUSTRY SUPPORT HELICOPTER ACCIDENT CAUSES/INFO

Procedure	Engine Related	Flight Into Terrain, Water Or Obstacles	# Fatal Due to Single Engine Malfunction



<b>Heavy Twin (2000)</b>	1	0	0	0
<b>Heavy Twin (99)</b>	0	0	1	0
<b>Single Eng (98)</b>	0	0	1	0

## 2000 OGP WORLD-WIDE OIL INDUSTRY ACCIDENTS

HELICOPTERS 2000					Accident		Injury Data		Severity of Inj.		Helo Damage			Causes of Accidents							Narrative		
DATE	ACTIV.	MODEL	TYPE	Country	#	# Fatal	Pax	Crew	Injury	Fatal	Min	Subs	Lost	Tech	FITW	LTNG	Fuel	Tie Down	Sling Load	Obstacle Strike		Pilot Proc	
4-May-00	Offshore	B412	MT	Abu Dhabi	1							1								1		Tail rotor struck crane	
2-Aug-00	Offshore	S76A	MT	Brazil	1	1	3	2		5			1		1							CFIT	
20-Mar-00	Offshore	B206B3	SE	GOM	1		2	1	3				1									1	Loss of TR effectiveness
29-Apr-00	Offshore	B206L3	SE	GOM	1			1	1				1	TR									TR failure, improper bolt install, with inadequate fuel to RTB
24-May-00	Offshore	AS350B	SE	GOM	1		1	1	2				1	TR									TR Failure
31-May-00	Offshore	B206	SE	GOM	1			1	1				1									1	TR skid caught in safety fence
8-Sep-00	Offshore	B206	SE	GOM	1			1	1				1				1						Pilot Unable to get fuel offshore
28 Oct 00	Offshore	AS350B	SE	GOM	1	1		1		1			1	Eng									Engine failure, did not maintain rotor RPM
1-Dec-00	Offshore	B206B3	SE	GOM	1								1	Eng									Engine failure
26-Dec-00	Offshore	B206B3	SE	GOM	1	1		1		1			1		1								Disappeared at night
29-Dec-00	Offshore	B407	SE	GOM	1	1		1		1			1	Unk									Disappeared - offshore flight
15-Feb-00	Offshore	AS332L	HT	UK	1						1					1							Lightening Strike
8-Mar-00	Offshore	S76A	MT	Indonesia	1	1		2		2			1	Unk									Tech Failure - unconfirmed
15-Apr-00	Offshore	B212	MT	Nigeria	1							1		MR									Grip Failure and hard landing
10-Nov-00	Offshore	B206	SE	Nigeria	1	1	2	1	2	1			1										Tied down to deck
16-Aug-00	Offshore	B412	MT	Iran	1	1	1	2	1	2			1		1								Crashed into sea at night
17-May-00	Other	B214ST	HT	Saudi	1		4	2	6			1										1	Maint test flight, acft rolled on side in high winds
3-Jun-00	Pipeline	B206	SE	Algeria	1	1	3	2	4	1			1		1								Crashed in dust
8-Jun-00	Pipeline	AS316	SE	Bolivia	1		3	1	4				1									1	Wire strike avoidance at 13,000', loss of control
11-Sep-00	Pipeline	B206	SE	UK	1		1	1	2				1		1								CFIT in bad weather
28-Sep-00	Pipeline	B206B3	SE	Canada	1		1	1	2				1									1	Loss of control at low alt
18-Jan-00	Seismic	AS350	SE	Brazil	1						1											1	Skid caught in net
4-May-00	Seismic	AS350D	SE	US	1	1	3	3	3	3			1	TR									TR failure with heavy load alt
19-Jun-00	Seismic	B206B3	SE	US	1			1	1				1						1				Cable did not release
24-Aug-00	Seismic	AS350B	SE	Canada	1							1		Eng									Loss of power with sling load
10-Oct-00	Seismic	H369D	SE	US	1			1	1				1	Eng									Engine failure
22-Oct-00	Seismic	AS350B	SE	Canada	1								1									1	Tree strike & loss of TR thrust
31-Dec-00	Seismic	H369D	SE	Canada	1			1	1				1									1	Tree strike with sling load
<b>Totals 2000</b>					<b>28</b>	<b>9</b>	<b>24</b>	<b>28</b>	<b>35</b>	<b>17</b>	<b>2</b>	<b>5</b>	<b>21</b>	<b>10</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>6</b>		
<b>AIRPLANES 2000</b>																							
17-Mar-00	Other	DA 900	TT	US	1								1									1	Over ran runway
2-Nov-00	Other	Cit. 2	TT	Canada	1		5		5		1											1	Hard Landing
11-Nov-00	Geophys	FU24A	SP	Myanmar	1							1		Eng									Loss of power, forced to ditch
<b>Totals 2000</b>					<b>3</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	
<b>MARINE TRANSFER</b>																							
21-Feb-00	Pilot	H369	SE	Australia	1							1			1								Flew into Water
<b>TOTAL ALL AIRCRAFT</b>					<b>32</b>	<b>9</b>	<b>29</b>	<b>28</b>	<b>40</b>	<b>17</b>	<b>3</b>	<b>6</b>	<b>22</b>	<b>13</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>7</b>		

# 2000 OGP

## WORLD-WIDE OIL INDUSTRY HELICOPTER ACTIVITY DATA by COUNTRY

Country	Type Helicopter					Passengers Carried					Hours Flown					Landings and Takeoffs				
	SE	LT	MT	HT	TOTAL	SE	LT	MT	HT	TOTAL	SE	LT	MT	HT	Ttl Hrs	SE LTO	LT LTO	MT LTO	HT LTO	Ttl LTO
Angola	8		11		19	315,542		162,421		477,963	13,209		8,925		22,134	147,209		31,870		179,079
Argentina	3		2		5	3,042		7,914		10,956	870		618		1,488	6,144		6,323		12,467
Australia	7	1	15	10	33	5,942	9,476	177,562	72,537	265,517	2,988	1,141	11,068	8,190	23,387	10,982	6,362	39,065	13,421	69,830
Azerbaijan			2	1	3			11,500	14,000	25,500			761	450	1,211			1,420	880	2,300
Bangladesh			1		1			10,293		10,293			580		580			1,730		1,730
Barbados		0			0		4			4		3			3		5			5
Bolivia	1	1			2	353	1,484			1,837	270	310			580	412	102			514
Brazil		4	45	5	54		5,049	280,336	82,013	367,398		2,158	45,749	4,762	52,669		8,218	107,748	11,668	127,634
Brunei				3	3				24,588	24,588				3,071	3,071				4,245	4,245
Cameroun			2		2			14,002		14,002			1,347		1,347			4,257		4,257
Canada	9	2	0	10	21	4,684	6,675		121,534	132,893	7,946	1,103	0	11,151	20,200	20,264			7,284	27,548
China	1	1	12	11	25	348	569	40,296	110,946	152,159	672	724	5,184	11,132	17,712	769	854	8,060	12,194	21,877
Colombia	7		17	11	35	1,232		350,974	202,938	555,144	354		13,565	7,642	21,561	956		73,024	27,220	101,200
Congo	2		2		4	63,073		11,133		74,206	1,807		783		2,590	25,742		3,177		28,919
Denmark	0		1	6	7			10,293	43,971	54,264			761	5,635	6,396			1,730	3,233	4,963
Ecuador	7	1	4	3	15	5,000	3,600	7,380	7,786	23,766	3,500	1,000	2,490	1,585	8,575	805	396	6,980	2,439	10,620
Egypt	8		15		23	49,269		265,026		314,295	5,228		14,895		20,123	24,241		59,567		83,808
Equat Guinea			4		4			21,100		21,100			2,648		2,648			2,800		2,800
Eqypt			0		0			128		128			13		13			20		20
Gabon			4		4			31,101		31,101			2,391		2,391			7,179		7,179
India		0	0		0		4	33		37		7	5		12		2	6		8
Indonesia	2	12	13	5	32	1,320	99,912	54,607	2,079	157,918	478	4,312	7,258	344	12,392	783	10,079	11,861	503	23,226
Ireland			1		1			3,848		3,848			356		356			1,296		1,296
Israel		0	0		0		149	127		276		14	5		19		50	16		66
Kazakhstan			2	1	3			6,009	3,499	9,508			674	454	1,128			1,358	310	1,668
Libya				2	2				19,413	19,413				964	964				1,696	1,696
Malaysia			6	8	14			72,216	155,678	227,894			5,749	10,078	15,827			14,054	14,457	28,511
Mexico	6	5	20		31	4,819	40,717	397,518		443,054	1,800	3,610	12,532		17,942	4,985	20,750	40,942		66,677
Mozambique	0				0	354				354	94				94	124				124
Myanmar			2		2			12,000		12,000			1,175		1,175			1,200		1,200
Namibia			2		2			9,403		9,403			771		771			3,463		3,463

# 2000 OGP

## WORLD-WIDE OIL INDUSTRY HELICOPTER ACTIVITY DATA by COUNTRY

Country	Type Helicopter					Passengers Carried					Hours Flown					Landings and Takeoffs				
	SE	LT	MT	HT	TOTAL	SE	LT	MT	HT	TOTAL	SE	LT	MT	HT	Ttl Hrs	SE LTO	LT LTO	MT LTO	HT LTO	Ttl LTO
Netherlands			11	4	14			104,817	27,215	132,032			10,368	2,199	12,567			36,576	5,214	41,790
New Zealand			1		1			9,830		9,830			931		931			1,730		1,730
Nigeria	11	4	34		49	277,322	20,700	391,500		689,522	16,719	2,201	24,308		43,228	124,978	7,022	66,668		198,668
Norway			5	30	35			143,613	564,496	708,109			6,527	38,759	45,286			33,336	28,245	61,581
Peru	2			0	2	1,613			42	1,655	422			25	447	1,067			53	1,120
Phillippines			3		3			4,721		4,721			1,624		1,624			500		500
PNG	9		1	0	10	58,350		5,044		63,394	8,218		942	203	9,363	70,850		4,532	579	75,961
Qatar			20		20			147,264		147,264			12,943		12,943			30,850		30,850
Russia				4	4				5,449	5,449				1,183	1,183				1,082	1,082
Sakhalin				2	2				760	760				853	853				138	138
Saudia Arabia	7		10	3	20	19,678		131,868	67,972	219,518	3,960		9,010	2,158	15,128	19,332		37,912	12,354	69,598
South Africa	2		1	5	8	2,676		630	28,757	32,063	51		149	2,268	2,468	40		199	3,426	3,665
Spain			2		2			11,217		11,217			903		903			745		745
Sudan	1		1		2	552		3,240		3,792	654		627		1,281	311		702		1,013
Thailand			13	4	17			85,010	48,160	133,170			9,792	4,056	13,848			18,078	3,480	21,558
Trinidad		5	4		9		24,270	20,026		44,296		2,751	1,110		3,861		10,648	3,325		13,973
UK	2	1	30	42	76	187	81	196,405	655,343	852,016	492	557	24,712	56,468	82,229	360	335	54,470	81,819	136,984
USA	26	3	10	0	39	28,796	2,079	85,279	307	116,461	14,415	943	3,495	26	18,879	25,371	1,354	7,479	20	34,224
USA-GOM	385	76	106	15	582	2,318,379	206,094	759,015	168,024	3,451,512	316,029	38,126	79,736	8,016	441,907	1,051,160	134,035	192,289	17,197	1,394,680
Venezuela	5				5	8,652				8,652	4,380				4,380	4,316				4,316
Yemen	3				3	17,677				17,677	2,727				2,727	31,545				31,545