2000
HELICOPTER SAFETY ADVISORY CONFERENCE (HSAC) GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONS AND SAFETY REVIEW

Gentlemen: April 18, 2001

Please find attached the Helicopter Safety Advisory Conference (HSAC) "2000 Gulf of Mexico Offshore Helicopter Operations and Safety Review". The membership support and response from 21 helicopter operators for this review is not only appreciated, but vital in establishing a meaningful report. Continued support is encouraged for the future.

The 2000 Gulf of Mexico oil industry helicopter accident rates per 100,000 hours was 2.04 with 9 accidents (all single engine) compared to the 16-year average of 6.9 accidents. The U.S. accident rates per 100,000 hours for all commercial helicopter operations was 3.76 and the fatal rate was 0.70, while the HSAC rates were 2.04 and 0.68 respectively. There were 3 fatal accidents with 3 fatalities (one caused by flight into water at night, one engine failure with apparent inability to maintain rotor RPM, and one remaining cause unknown).

In the last 4 years there have been 27 accidents resulting in 5 fatal accidents (18% fatal) with 6 fatalities. The leading causes of accidents have been 6 engine related (22%), 5 (18%) flight into terrain, water or obstacles, and 5 (18%) tail rotor malfunction with 5 accidents each (18%). Technical faults have accounted for 11 (40%) of these accidents. We are optimistic that by sharing this information with all operators and other oil industry group's safety initiatives may be developed to reduce accidents.

Bob Williams
Industry Liaison Committee Member

GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONAL DATA SUMMARY

YEAR	NUMBERS by TYPE HELICOPTER								
	SINGLE ENGINE	LIGHT TWIN	MEDIUM TWIN	HEAVY TWIN	TOTAL FLEET	PASSENGERS CARRIED	HOURS FLOWN	NUMBEROF TS	FLIGH
1996	321	102	117	0	540	3,579,345	441,797	1,668,401	
1997	380	114	131	11	636	3,759,642	471,513	1,705,629	
1998	392	89	94	13	588	2,725,682	454,280	1,390,773	
1999	413	81	93	14	601	2,664,848	392,712	1,459,781	
2000*	385	76	106	15	582	3,451,511	441,908	1,394,679	

*** Data extracted from voluntary input of 21 helicopter operators in the Gulf of Mexico**

GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONAL DATA DETAILS

HOURS by TYPE HELICOPTER						OPERATIONS by TYPE HELICOPTER				
YEAR	**SINGLE ENGINE**	**LIGHT TWIN**	**MEDIUM TWIN**	**HEAVY TWIN**	**TOTAL FLEET**	**SINGLE ENGINE**	**LIGHT TWIN**	**MEDIUM TWIN**	**HEAVY TWIN)**	**TOTAL FLEET**
1997*	288,443	69,142	109,631	4,297	471,513	1,113,151	249,595	320,023	22,860	1,705,629
1998	303,434	54,509	88,470	7,867	454,280	1,025,105	183,133	167,255	15,280	1,390,773
1999	316,029	38,126	79,736	8,016	441,908	1,051,160	134,035	192,289	17,197	1,394,679
2000	316,029	38,126	79,736	8,016	441,908	1,051,160	134,035	192,289	17,197	1,394,679

*** Detailed data for helicopter types not available prior to 1997**

GULF OF MEXICO HELICOPTER FLEET OPERATIONAL DATA

Averages Per Helicopter	1998	1999	2000	Averages Per Helicopter	1998	***1999***	2000
Passengers per Day per 5 Day Week	10,483	10,249	*13,275*	**Annual Hours Per Aircraft**	773	653	*760*
Flights Per Day	3,810	3,999	*3,821*	**Flights Per Aircraft**	2,365	2,429	*2,399*
Average Flight Duration in Min.	20	16	*19*	**Passengers Flown Per Year**	4,636	4,434	*5,936*

As a service to the Helicopter Safety Advisory Conference (HSAC) membership, this Gulf of Mexico Offshore 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 HSAC assumes no liability for accuracy or completeness.

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2000 GULF OF MEXICO OFFSHORE HELCOPTER ACCIDENT DATA

NUMBER OF ACCIDENTS				**INJURY CLASSIFICATION**				**AIRCRAFT DAMAGES**			**AVIATION ACCIDENT**			
Aircraft Category				**Injuries**		**Severity**		**Classification**			**Rates**			
Type Aircraft	# Accidents	# Fatal	# Eng				Fatal			Total	# Acc 100k	# Fatal Acc	# Fatal M 1	# Acc 100k

			Related	Pax	Crew	Injured		Minor	Substantial	Loss	Hours	100k Hours	Occupants	Flt Stages
Single Eng.	9	3	2	5	4	5	2	0	1	8	2.85	0.95	0.09	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
2000 Totals	9	3*	2	3	8	8	3	0	1	8	2.04	0.68	0.47	0.65
1999 Totals	9	1	2	7	4	9	2	2	2	5	2.29	0.25	0.05	0.62

*** One engine related** **Note, there was one single engine ditching in 2001, not recorded as an accident.**

2000 GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT CAUSES/INFO

Type	**Engine Related**	**Tiedown Proced.**	**Bird Strike**	**Flight Into Terrain, Water or Obstacle**	**Fuel Starvation**	**Tail Rotor**	**Adverse Weather Start Proced.**	**Helideck Surface Hazard**	**Unknown**	**Pax Control**	**Mid Air**	**Helideck Design or Size Issues**	**Injuries Due To Engine Malf.**
Single Eng	2	0	0	1	1	3	0	1	1	0	0	0	1*
Light Twin	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
Heavy	0	0	0	0	0	0	0	0	0	0	0	0	0

Twin													
2000 Totals	***2***	***0***	***0***	***1 (Night SE)***	***1***	***3***	***0***	***1***	***1***	***0***	***0***	***0***	***1***
97-99 Totals	4	1	1	4	0	2	2	1	1	1	2	0	0

FIVE YEAR GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT DATA **Injuries**

Number Of Accidents				**Injury Classification**				**Aircraft Damages**		**Aviation Accident**			
Aircraft Category				**Severity**		**Classification**		**Rates**					
Year	# Accidents	# Fatal	# Eng Related	Pax	Crew	Injured	Fatal	Minor	Substantial	Total Loss	# Acc 100k Hrs	# Fatal Acc 100k Hrs	# Fatal 1 M Occupants	# Acc 100k Flt Stages
1996	7	4	NR	7	4	0	11	1	2	4	1.58	0.91	0.19E	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	0.23	0.22
1999	9	1	2	7	4	9	2	2	2	5	2.29	0.25	0.47	0.62
2000	9	3	2	3	8	8	2	0	1	8	2.04	0.68	0.40	0.65
5 Yr. Avg.	7.0	1.4	1	4.8	4.6	7.8	1.6	1.2	1.6	4.6	1.61	0.32	0.32	0.48

NR = Not Reported **E = Estimated**