HSAC Members: May 13, 2002

Please find attached the Helicopter Safety Advisory Conference (HSAC) "2002 Gulf of Mexico Offshore Helicopter Operations and Safety Review". The membership support and response from 24 helicopter operators for this review is not only appreciated, but vital in establishing a meaningful report. Continued support is encouraged for the future.

The 2002 Gulf of Mexico oil industry helicopter accident rate per 100,000 flight hours was 1.49 with a total of 6 accidents (all single engine) compared to an 19-year annual average accident rate of 1.72 with a total of 8.8 accidents. The U.S. accident rate per 100,000 hours for all commercial non-scheduled FAR Part 135 operations was 3.68. and the fatal rate was 0.82, while the HSAC helicopter rates were 1.49 and 0.25 respectively. There was 1 fatal accident with 1 fatality when pilot attempted to depart on offshore platform while still tied to the helideck.

In the last 5 years, there have been 36 accidents of which 7 were fatal (19%), including 8 fatalities and 29 injuries. 16 (44%) of these accidents were due to pilot procedure related causes and 10 (27%) were due to technical fault. The specific leading causes of accidents in the last 5 years have been:

- 7 engine related (19%) one of this resulted in a fatality.
- 6 (16%) loss of control or improper procedure.
- 3 (8%) each for fuel quality control, loss of tail rotor control, and obstacle strike on a helideck.
- 2 flight into terrain/water accidents, both at night.

During 2002, improper pilot procedures accounted for 3 (50%) of the 6 accidents. 1 of these was due to failure to remove tie-downs before attempted departure, 1 was loose cargo hitting the tail rotor, and the last was a hard landing in high winds.

Type Aircraft	% Night Flight	% IFR Flight
Single Eng.		
Light Twin		
Med. Twin		
Heavy Twin		
Fleet Average		

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 and incidents.

Bob Williams

Industry Liaison Committee Member

GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONAL DATA SUMMARY

YEA NUMBERS by TYPE HELICOPTER SINGL LIGH MEDIU HEAV TOTA **HOUR** \mathbf{M} PASSENGE S \mathbf{E} T Y L **ENGIN TWIN TWIN** TWIN FLEE RS FLOW NUMBEROF FLIGH Т **CARRIED** TS \mathbf{E} N 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 **2001** 407 87 121 17 632 3,127,449 451,712 1,473,057 **2002*** 411 77 121 402,632,564,362 16 625 3,088,865

GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONAL DATA DETAILS

HOU	RS by TY	PE HE	LICOPTI	ER		OPERATIONS by TYPE HELICOPTER							
YEA	SINGL	LIGH	MEDIU	HEAV	TOTA	SINGL	LIGH	MEDIU	HEAV	TOTAL			
R	E	T	M	Y	L	E	T	M	Y	FLEET			
	ENGIN	TWIN	TWIN	TWIN	FLEE	ENGIN	TWIN	TWIN	TWIN)				
	E				T	E							
1998	303,434	54 500	88,470	7,867	454,28	1,025,10	183,13	167,255	15 280	1,390,77			
	303,434	34,309	00,470	7,807	0	5	3	107,233	13,200	3			
1999	316,029	29 126	79,736	8,016	441,90	1,051,16	134,03	102 290	17 107	1,394,67			
	310,029	36,120	19,130	8,010	8	0	5	192,209	17,197	9			
2000	316,029	20 126	79,736	8,016	441,90	1,051,16	134,03	192,289	17 107	1,394,67			
	310,029	38,120	19,130	8,010	8	0	5	192,289	17,197	9			
2001	309,429	25 210	96,548	10,417	451,71	1,123,39	125,83	204,285	19,547	1,473,05			
	309,429	33,318	90,348	10,417	2	3	2	,	,	7			
2002	204.226	26.610	92 556	0.240	402,63	1,251,94	00 117	195,883	17,417	1,564,36			
	284,226	20,010	83,330	8,240	2	5	99,117	195,883	1/,41/	2			

GULF OF MEXICO HELICOPTER FLEET OPERATIONAL DATA

Averages Per	2000	2001	2002	Averages Per	2000	2001	2002
Helicopter				Helicopter			
Passengers per Day	13,275	12,029	11,880	Annual Hours	760	715	644
per 5 Day Week				Per Aircraft			
Flights Per Day	3,821	4,036	4,286	Flights Per	2,399	2,333	2,503
riigiits Fer Day				Aircraft			
Average Flight	19	18	15	Passengers Flown	5,936	4,952	4,942
Duration in Min.				Per Year			

^{*} Data extracted from voluntary input of 12 helicopter operators in the Gulf of Mexico

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.

2002 GULF OF MEXICO OFFSHORE HELCOPTER ACCIDENT DATA

	BER OF DENTS				URY ASSI	FICAT	ION		AIRCRAF' DAMAGES		AVIATION ACCIDENT				
Aircra	ft Cate	gory	·]	Injuries		Severity			Classificati	Rates					
Type	#	#	#							Tot	#	#	#	#	
Aircra	Acciden	Fat	Eng							al	Acc	Fatal	Fatal 1	Acc	
ft	ts	al	Relate	Pa	Cre	Injure	Fatal	Mi	n Substanti		100k	Acc	M	100k	
			d	X	W	d		or	al	Los	Hour	100k	Occupan	Flt	
										S	S	Hour s	ts	Stage s	
Single Eng.	6*	1	1	1	2	2	1	0	4	2	2.11	0.35	0.37	0.48	
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	
Heav															
y Twin	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	
2002	6	1	1	1	2	2	1	0	4	2	1.49	0.25	0.21	0.38	
2001	8	1	0	8	3	10	1	3	3	2	1.77	0.22	0.21	0.54	

^{*} Note - There was one additional ditching in 2009 due to loss of power that was not recorded as an accident.

2002 GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT CAUSES/INFO

Typ	Pow	Oth	Tie-	Loss	Loo	Flight	Fuel	Obstac	le	Fue	Weath	Un	Pax	Helide	Fatalit
e	er	er	dow	Contro	se	Into	Mg	Strike		1	er	k	Cont	ck	ies
	Loss,		n	l or	Car	Terrai	mt	Helide	Oth	Qu	non-		rol or		Due
	mult			Impro	go	n,		ck	er	al.	CFIT		HLO	Desig	To
	i-		Pro	per		Water							Proce	n or	Engine
			c.	Proced		(CFIT							d.	Size	Malf.
				•		W)								Issues	

	caus e														
		nical	Pilot	Proced	ure F	Related					ı				
Sing le Eng	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0
Lig	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Med Twi n		0	0	0	0	0	0	0	0	0	0	0		0	0
Hvy Twi n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 1	1	0	1	1	1	0	0	0	1	1	0	0	0	0	0
98- 92 total s	7	3	2	6	2	2	1	3	3	2	1	2	2	0	1

FIVE YEAR GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT DATA Injuries

Number Of Injury C Accidents					fication	A	Aircraft Damages Aviation Accident							
Aircraft	Categ	gor Se	everity	(Classification	1	Rate	es						
y		<i>"</i>										#15 · 1.1		
Year #	#	# Eng	3							#	#	# Fatal 1	. #	
Accide	en	Relat	e						Tot	Acc	Fat	M	Acc	
ts	Fata	l d	Pax	Cre	Injured	Fat	Min	Substant	ial	100	al	Occupar	100k	
				W		al	or	al		k	Acc	ts	Flt	
									Los	Hrs	100		Stage	
									S		k		S	
											Hrs			
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	10.68	0.40	0.65	
2001 8	1	1	8	3	10	1	3	2	3	1.77	70.22	0.32	0.54	

2002 6	1	1	1	2	2	1	0	4	2	1.490.250.21	0.38
5 Yr. 7.0 Avg.	1.4	1.2	3.8	3.8	6.0	1.6	0.8	2.2	4.2	1.650.320.34	0.48

Revision 4-8-2003