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

HSAC Members: May 13, 2002

Please find attached the Helicopter Safety Advisory Conference (HSAC) "2001 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 2001 Gulf of Mexico oil industry helicopter accident rate per 100,000 flight hours was 1.77 with a total of 8 accidents (6 single engine, 2 medium twin) compared to an 18-year annual average of 8.9 accidents with an accident rate of 1.72. The U.S. accident rate per 100,000 hours for all commercial non-scheduled FAR Part 135 operations was 2.12. and the fatal rate was 0.53, while the HSAC helicopter rates were 1.77 and 0.22 respectively. There was 1 fatal accident with 1 fatality when a passenger walked into the main rotor of a medium twin.

In the last 5 years there have been 35 accidents of which 7 were fatal (21%) with 8 fatalities. The leading causes of accidents have been 6 engine related (17%), 5 (14%) flight into terrain, water or obstacles, and 5 (14%) tail rotor malfunction. Technical faults accounted for 12 (34%) of these accidents.

During 2001, the accident causes did not fit the above pattern; pilot procedures accounted for 4 (50%) of the 8 accidents. Unofficial, are that two of these were misdiagnosis of aircraft malfunction, one was an unauthorized flight procedure, and the last was failure to properly secure the baggage compartment. Two additional accidents (25%) were caused by poor fuel quality control. When coupled with the fatal passenger control accident, 6 of the 8 accidents in 2001 were human error related (75%).

This is the first year in which we have gathered operational data on the percentages of flights flown at night or under IFR conditions and those results are noted below:

Type Aircraft	% Night Flight	% IFR Flight
Single Eng.	1	0
Light Twin	0	0
Med. Twin	10	4
Heavy Twin	10	5
Fleet Average	3	1

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

R	SINGL	LIGH	MEDIU	HEAV	TOTA		HOUR		
	\mathbf{E}	\mathbf{T}	M	Y	${f L}$	PASSENGE	S		
	ENGIN	TWIN	TWIN	TWIN	FLEE	RS	FLOW	NUMBEROF	FLIGH
	E				T	CARRIED	N	TS	
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	
2001*	407	87	121	17	632	3,127,449	451,712	1,473,057	

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

GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONAL DATA DETAILS

HOU	RS by TY	PE HE	LICOPTI	ER	OPERA'	TIONS	by TYPE	HELIC	OPTER	
YEA R		_	MEDIU M	HEAV Y	TOTA L	SINGL E	LIGH T	MEDIU M	HEAV Y	TOTAL FLEET
	ENGIN E	TWIN	TWIN	TWIN	FLEE T	ENGIN E	TWIN	TWIN	TWIN)	
1997	288,443	69,142	109,631	4,297	471,51	1,113,15 1	249,59 5	320,023	22,860	1,705,62
1998	303,434	54,509	88,470	7,867	454,28 0	1,025,10 5	183,13 3	167,255	15,280	1,390,77
1999	316,029	38,126	79,736	8,016	441,90 8	1,051,16 0	134,03 5	192,289	17,197	1,394,67
2000	316,029	38,126	79,736	8,016	441,90 8	1,051,16 0	134,03 5	192,289	1,,1,,	1,394,67
2001	309,429	35,318	96,548	10,417	451,71 2	1,123,39	125,83 2	204,285	19,547	1,473,05 7

GULF OF MEXICO HELICOPTER FLEET OPERATIONAL DATA

Averages Per	1999	2000	2001	Averages Per	1999	2000	2001
Helicopter				Helicopter			
Passengers per Day	10,249	13,275	12,029	Annual Hours	653	760	715
per 5 Day Week				Per Aircraft			

Flights Per Day	3,999	3,821	4,036	Flights Per Aircraft	2,429	2,399	2,333
Average Flight Duration in Min.	16	19	18	Passengers Flown Per Year	4,434	5,936	4,952

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.

Dedicated to Safety Through Cooperation Since 1978

2001 GULF OF MEXICO OFFSHORE HELCOPTER ACCIDENT DATA

BER OF DENTS						ION				AVIATION ACCIDENT					
ft Cate	gory]	Injuries		Severi	ty	(Classification	on	Rates					
#	# #				Tot	#	#	#	#						
Acciden	Fat	Eng							al	Acc	Fatal	Fatal 1	Acc		
ts	al	Relate	Pa	Cre	Injure	Fatal	Min	Substanti		100k	Acc	M	100k		
		d	X	W	d		or	al	Los	Hour	100k	Occupan	Flt		
									S	S	Hour	ts	Stage		
											S		S		
0*	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00		
0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00		
0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00		
0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00		
8	1	0	8	3	10	1	3	3	2	1.77	0.22	0.21	0.54		
9	3*	2	3	8	8	3	0	1	8	2.04	0.68	0.47	0.65		
	DENTS ft Cate # Acciden ts 0* 0 0	DENTS ft Category # Acciden Fat ts al 0* 0 0 0 0 0 0 0 8 1	# # # # Acciden Fat Eng al Relate d 0* 0 0 0 0 0 0 0 0 8 1 0	DENTS CLA ft Category Inju # # # # Acciden Fat Eng Relate Pa d 0 0 0 0 0* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8 1 0 8	DENTS CLASSI ft Category Injuries # # # Acciden Fat Eng Relate Pa Cre 0* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8 1 0 8 3	CLASSIFICAT ft Category Injuries Severing # Acciden ts Fat Eng Relate d Cre Injure d 0* 0 0 0 0* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	CLASSIFICATION ft Category Injuries Severity # Acciden ts # Eng al Relate d Pa Cre w Injure Fatal d 0* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8 1 0 8 3 10 1	DENTS CLASSIFICATION Injuries Severity C # # # # Eng Cre Injure Fatal Min or 0* 0 0 0 0 0 0 0 0* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8 1 0 8 3 10 1 3	DENTS CLASSIFICATION DAMAGES ft Category Injuries Severity Classification # Acciden ts Fat Eng al Relate d x Eng Relate x<	DENTS CLASSIFICATION DAMAGES ft Category Injuries Severity Classification # Acciden Fat Relate Is # Eng Relate Is Cre Acciden Is Injure Is Fatal Is Min or Substanti Is Los Is 0* 0 <t< td=""><td> CLASSIFICATION DAMAGES ACC Rate Classification Rate Classification Rate Classification Classification Rate Cre C</td><td> CLASSIFICATION DAMAGES ACCIDENT </td><td> CLASSIFICATION DAMAGES ACCIDENT </td></t<>	CLASSIFICATION DAMAGES ACC Rate Classification Rate Classification Rate Classification Classification Rate Cre C	CLASSIFICATION DAMAGES ACCIDENT	CLASSIFICATION DAMAGES ACCIDENT		

^{*} One engine related accident.

Note, there was one single engine ditching in 2001, not recorded as an

2001 GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT CAUSES/INFO

Type	En							Fue			Helide					Fataliti
	g		dow		Stri	Into	l	<u>l</u>		se Wx	ck	k	Contr		ck	es Due
		Mis	n	Pro	ke	Terrai	_		or		Surfac		ol	Ai		To
		c	_	c.		n,	al	V		Proce	е			r	_	Engine
			Pro			Water				d.	Hazar				n or	Malf.
			c.			or Obsta					d				Size	
						cle									Issues	
Singl	0	1	0	3	0	0	2	0	0	0	0	0	0	0	0	0
e																
Eng																
Ligh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
t .																
Twi																
n				1		0					0		1		0	
Med	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
Twi																
n																
Hea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vy																
Twi																
n																
2001	0	1	0	4	0	0	2	0	0	0	0	0	1	0	0	0
Tota																
ls																
97*-	6	0	1	0	1	5 (1	0	1	5	2	2	2	1	2	0	1
00						Night										
Total						SE)										
S																

^{*} Acft type accident causes not gathered prior to 1997

Gray highlight cells are technical related accidents

FIVE YEAR GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT DATA Injuries

Num Accio	ber Of dents		I	njury C	lassif	Sification Aircraft Damages					Aviation Accident				
-				everity	C	lassificatio		Rate							
y Year # #			# En	σ				<u> </u>			#	#	# Fatal	#	
1 Cai			Rela	<u> </u>						Tot			1 M	Acc	
	nts	Fata	ed	Pax	Cre	Injured		Min	Substant	al	100		Occupa	100k	
		I			W		al	or	ial	Los	k Hrs	Acc 100	nts	Flt Stag	
										s		k		es	
											Hrs				

1997	6	1	1	6	6	11	1	1	2	4	1.27	0.2	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
2001	8	1	1	8	3	10	1	3	2	3	1.77	0.22	0.32	0.54
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

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