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

**HSAC Members: March 18, 2008** 

Please find attached the Helicopter Safety Advisory Conference (HSAC) "2007 Gulf of Mexico Offshore Helicopter Operations and Safety Review". The membership support and response from 15 helicopter operators for this review is not only appreciated, but vital in establishing a meaningful report. Continued support is encouraged for the future.

The 2007 Gulf of Mexico oil industry helicopter accident rate per 100,000 flight hours was 1.70 with a total of 7 accidents (all single engine) compared to a 24-year annual average accident rate of 1.86. The fatal accident rate per 100,000 flight hours during 2007 was 0.49 with two fatal accidents (3 fatalities) compared to a 24-year average of 0.65.

During 2007, obstacle strikes on helidecks accounted for 3 (43%), improper pilot procedures accounted for 2 (29%), and 1 each tie-down and loose cargo accident (14% each).

In the last 5 years, there have been 46 accidents of which 16 were fatal (35%), resulting in 37 fatalities and 49 injuries. The leading causes, not all inclusive, of accidents in the last 9 years have been:

- 18 engine related
- 14 loss of control or improper procedures
- 11 helideck obstacle strikes
- 9 controlled flight into terrain
- 8 each tail rotor failure

HSAC has published a number of Recommended Practices to address these issues and they can be reviewed at www.HSAC.org. We are optimistic that by sharing this information with all operators and other oil industry group's, safety initiatives may be developed and implemented to reduce accidents and incidents.

#### **Bob Williams**

**Industry Liaison Committee Member** 

#### GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONAL DATA SUMMARY

1	YEA	NUMBI	ERS by	TYPE H	ELICO	PTER		HOUR		
]	R	SINGL	LIGH	MEDIU	HEAV	TOTA	PASSENGE	S		
		${f E}$	Т	M	$\mathbf{Y}$	L	RS	FLOW	NUMBEROF	FLIG
					TWIN		CARRIED	N	HTS	

	<b>ENGIN</b>	TWIN	TWIN		FLEE			
	${f E}$				T			
2003	410	66	118	13	607	2,574,810	381,273	1,345,075
2004	387	60	100	14	561			1,270,863
2005	424	48	99	18	589	2,625,322	389,544	1,310,736
2006	367	59	124	25	584	2,762,317	406,564	1,246,172
2007	387	61	123	35	606	2,953,484	410,797	1,294,141

<sup>\*</sup> 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	OPERATIONS by TYPE HELICOPTER							
YEA R	SINGL E ENGIN E	T	MEDIU M TWIN	HEAV Y TWIN	TOTA L FLEE T	E	LIGH T TWIN	MEDIU M TWIN	HEAV Y TWIN)	TOTAL FLEET	
2003	275,580	22,161	76,948	6,584	381,27 3	1,102,64 4	67,399	163,869	11,163	1,345,07 5	
2004	263,258	20,436	69,479	8,341	361,51 4	1,048,85 8	65,704	144,545	11,756	1,270,86 3	
2005	275,225	21,386	80,787	12,146	389,54 4	1,062,94 2	65,076	162,476	20,242	1,310,73 6	
2006	283,304	25,118	79,207	18,935	406,56 4	984,612	78,074	153,822	32,059	1,246,17 2	
2007	280,683	27,617	81,895	20,602	410,79 7	1,019,61 1	90,109	153,402	31,019	1,294,14 1	

#### GULF OF MEXICO HELICOPTER FLEET OPERATIONAL DATA

Averages Per	2005	2006	2007	Averages Per	2005	2006	2007
Helicopter				Helicopter			
Passengers per Day	10,097	10,624	11,360	Annual Hours	662	696	678
per 5 Day Week				Per Aircraft			
Flights Per Day	3,591	3,414	3,546	Flights Per	2,227	2,134	2,136
riights Per Day				Aircraft			
Average Flight	8	20	19	Passengers Flown	4,461	4,730	4,874
Duration in Min.				Per Year			

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.

## 2007 GULF OF MEXICO OFFSHORE HELCOPTER ACCIDENT DATA

	ER OF DENTS				URY ASSI				AIRCRAFT DAMAGES	AVIATION ACCIDENT				
Aircra	ft Cate	gory	]	lnju	ries	Severity			Classification	on	Rate	e <b>S</b>		
Aircra ft	Acciden ts	# Fat al	# Eng Relate d	Pa x	Cre w	Injure d	Fatal	Mir or	n Substanti al	al	Acc 100k	Acc	M Occupan	# Acc 100k Flt Stage s
Single Eng.	7	2	0	4	5	6	3	0	5	2	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
Heav y Twin	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2007 Totals	7	2	0	4	5	6	3	0	5	2	1.70	0.49	1.02	0.54
2006 Totals	6	1	1	4	3	5	2	1	1	4	1.48	0.25	0.48	0.48

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

## 2006 GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT CAUSES/INFO

Тур	Pow	Oth	Tie-	Loss	Loo	Flight	Fuel	Obstac	ele	Fue	Weat	Un	Pax	Helide	Fatalit
e	er	er	do	Contro	se	Into	Mg	Strike		1	her	k	Cont	ck	ies
	Loss		wn	l or	Car	Terrai	mt	Helide	Oth	Qu	non-		rol or		Due
	,			Impro	go	n,		ck	er	al.	CFIT		HLO	Desig	To
	mult		Pro	per		Water							Proce	n or	Engin
	i-		c.	Proced		(CFIT							d.	Size	e
	caus			•		<b>W</b> )								Issues	Malf.
	e														
	Tech	nica	Pilot	Proced	lure l										
	1														

Sing le Eng	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0
Lig ht Twi n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Me d. Twi n	0	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
200 7	0	0	1	2	1	0	0	3	0	0	0	0	0	1	0
99- 06 Ttls	18	8	1	12	3	9	5	8	1	4	2	6	4	7	6

# FIVE YEAR GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT DATA Injuries

Num Accid	ber Of lents		Iı	Injury Classification				ircra	ft Damag	gesA	viati	ion A	Accident	
Aircı	aft (	Categ	gor S	everity	C	Classification		Rate	S					
y	1			•		•			•					
Year	# Accide nts		# Eng Related		Cre	Injured	Fat	Min	Substant		Acc 100	Fat al	Occupa	Acc 100k
		1			W		al	or	ial	Los s	k Hrs	Acc 100 k Hrs	nts	Flt Stag es
2002	6	1	1	1	2	2	1	0	4	2	1.4 9	0.2	0.21	0.38
2003	15	7	3	17	8	13	12	3	2	10	3.9 3	1.8 4	2.93	1.12
2004	10	4	2	16	6	7	15	0	3	7	2.7 7	1.1 1	3.99	0.79
2005	8	2	2	16	7	18	5	0	4	4	2.0 5	0.5 1	1.21	0.61
2006	6	1	1	4	3	5	2	1	1	4	1.4 8	0.2 5	0.48	0.48

2007	7	2	0	4	5	6	3	0	5	2	1./	0.4 9	1.02	0.54
5 Yr. Avg.	9.2	3.2	1.6	11.4	5.8	9.8	7.4	0.8	3.0	<b>5</b> 4	2.3 9	0.8 4	1.93	0.71

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