



2016 HELICOPTER SAFETY ADVISORY CONFERENCE (HSAC) GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONS AND SAFETY REVIEW

March 20, 2017

HSAC Members:

Please find attached the Helicopter Safety Advisory Conference (HSAC) "2016 Gulf of Mexico (GoM) Offshore Helicopter Operations and Safety Review". The membership support and response from 10 helicopter operators for this review is not only appreciated, but vital in establishing a meaningful report.

The level of annual flying activity has continued to decline as compared to the past several years. The number of single engine helicopters experienced a slight increase, while the medium twin engine helicopters numbers decreased. The light and heavy twin engine helicopters numbers remained relatively steady as compared to the previous year.

There were no reported accidents by the HSAC member companies for calendar year 2016. The five year average GoM oil industry helicopter accident rate per 100,000 flight hours was 0.91. The fatal accident rate per 100,000 flight hours during these five years was 0.26.

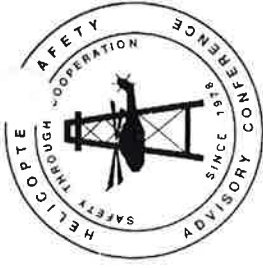
Since 1999, there have been 26 accidents of which 5 were fatal (19%), resulting in 13 fatalities and 16 injuries. The leading causes, not all inclusive, of the accidents since 1999 are listed below, and secondary causes of these events include 13 related to helideck size or design related issues.

- 21 engine related,
- 25 loss of control or improper procedures,
- 18 helideck obstacle strikes,
- 11 controlled flight into terrain, and
- 11 other technical failures

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 widely and openly sharing this information with all operators and other oil industry groups that additional safety initiatives may be developed and implemented to further reduce accidents and incidents with an ultimate goal of zero events.

Respectfully,

Terry Duprie
HSAC Committee Member



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GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONAL DATA SUMMARY

YEAR	NUMBERS by TYPE HELICOPTER				PASSENGERS CARRIED	HOURS FLOWN	NUMBER OF FLIGHTS
	SINGLE ENGINE	LIGHT TWIN	MEDIUM TWIN	HEAVY TWIN			
2012	275	67	111	28	2,278,780	316,685	894,439
2013	248	54	122	34	2,245,928	305,755	809,346
2014	271	52	96	46	2,043,649	296,001	741,201
2015	179	37	80	50	1,769,630	228,905	589,078
2016*	188	39	69	48	1,498,418	196,484	526,981

* Data extracted from voluntary input of 10 helicopter operators in the Gulf of Mexico

GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONAL DATA DETAILS

YEAR	HOURS by TYPE HELICOPTER				OPERATIONS (Takeoff/Landings) by TYPE HELICOPTER					
	SINGLE ENGINE	LIGHT TWIN	MEDIUM TWIN	HEAVY TWIN	TOTAL FLEET	SINGLE ENGINE	LIGHT TWIN	MEDIUM TWIN	HEAVY TWIN	TOTAL FLEET
2012	189,758	29,522	65,743	31,662	316,685	618,437	96,759	121,265	57,978	894,439
2013	172,211	24,812	79,394	29,338	305,755	536,284	81,339	142,754	51,525	809,346
2014	159,859	22,933	76,188	37,021	296,001	477,117	81,734	121,820	60,530	741,201
2015	127,325	17,003	43,471	35,746	228,905	392,814	54,895	88,257	62,110	549,078
2016	118,695	11,308	39,846	26,635	196,484	377,781	34,356	69,785	45,059	526,981

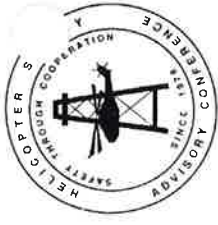
GULF OF MEXICO HELICOPTER FLEET OPERATIONAL DATA

Averages Per Helicopter	2014	2015	2016	Averages Per Helicopter	2014	2015	2016
Passengers per Day per 5 Day Week	7,860	6,806	5,763	Annual Hours Per Aircraft	713	662	571
Flights Per Day	2,031	1,614	1,444	Flights Per Aircraft	1,786	1,703	1,532
Average Flight Duration in Min.	24	24	22	Passengers Flown Per Year	4,924	5,129	4,356

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

HSAC 2016 GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONS AND SAFETY REVIEW



2016 GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT DATA

NUMBER OF ACCIDENTS				INJURY CLASSIFICATION				AIRCRAFT DAMAGES				AVIATION ACCIDENT			
Type Aircraft	Aircraft Category		# Eng Related	Occupant Type		Severity		Classification		Rates		Rates		# Acc 100k Flt Stages	
	# Accidents	# Fatal		Pax	Crew	Injured	Fatal	Minor	Substantial	Total Loss	# Acc 100k Hours	# Fatal 1M Occupants	# Acc 100k Flt Stages		
Single Eng.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Light Twin	0	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	0	
Heavy Twin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2016 Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

2016 GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT CAUSES/INFO

Type Aircraft	Power Loss, multi-cause	Other	Tie-down Proc.	Loss Control or Improper Proced.	Loose Cargo	Flight Into Terrain, Water (CFITW)	Fuel Mgmt	Obstacle Strike		Weather non-CFIT	U N K	Pax Control or HLO Proced.	Helideck Design or Size Issues	Fatalities Due To Engine Malf.
								Helideck	Other					
Single Eng	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Light Twin	0	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	0
Hvy Twin	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99-2016 TtIs	21	11	4	25	6	11	6	17	1	4	3	7	4	6

FIVE YEAR GULF OF MEXICO OFFSHORE HELICOPTER ACCIDENT DATA

Year	Number Of Accidents			Injury Classification			Aircraft Damages			Aviation Accident		
	# Accidents	# Fatal	# Eng Related	Occupant Type	Severity	Total Loss	Substantial	Minor	Fatal	# Acc 100k Hrs	# Fatal 1M Occupants	# Acc 100k Flt Stages
2012	5	2	1	2	3	2	2	0	2	1.58	0.63	0.56
2013	3	1	0	5	2	6	1	0	1	0.98	0.33	0.37
2014	2/2*	1	0	2	2	0	1	0	2	0.68/1.35*	0.34	0.27/0.54*
2015	3	0	0	5	3	1	2	0	1	1.31	0.00	0.51
2016	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
5 Yr. Avg.	2.6/3.4*	0.8	0.2	2.8	2.0	1.0	1.2	0.0	1.4	0.91/1.04*	0.26	0.34/0.39*

* Note - There were no ditchings in 2012, 2013, 2015, or 2016 that were not reported as accidents. Previous ditchings recorded as incidents if they had been classified as accidents are included in the red text as combined data inclusive of all accidents and ditchings. 2011 was the first year this comparison is shown on the report.