

HELICOPTER SAFETY NEWS

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 Contact: Tony Molinaro
 Phone: (847) 294-7427

U.S. Helicopter Safety Team Provides an Accident Ranking for Different Areas Within the Industry

WASHINGTON DC – Every baseball sabermetrics specialist knows that stand-alone numbers such as total RBIs and total pitching wins may not tell the entire story behind a successful or unsuccessful effort. This also holds true when the safety experts from the U.S. Helicopter Safety Team (www.USHST.org) analyze accident data. More information than the total number of accidents needs to be gathered in order to understand the complete story.

The USHST has looked at 10 years of helicopter operations data from Jan. 2009 through this year and compared the share of flight hours of every industry type with the percentage share of total accidents and fatal accidents. During this period, U.S. civil helicopters flew more than 31 million flight hours and experienced 1,298 total accidents and 209 fatal accidents. Comparing the share of flight hours with the share of accidents within each industry area, the USHST developed this list:

Industry	% of Flight Hours	% of Total Accidents	Variance	
1. Air Ambulance	16	7	+9	Better than expected
2. Aerial Observe/Police/News	18	11	+7	Better than expected
3. Air Tour/Sightseeing	10	4	+6	Better than expected
4. Offshore/Oil	8	3	+5	Better than expected
5. Other (positioning, proficiency)	5	0	+5	Better than expected
6. Firefighting	3	1	+2	At expectations
7. External Load	5	4	+1	At expectations
8. Business/Corporate	4	3	+1	At expectations
9. Instructional	17	18	-1	At expectations
10. Commercial (air taxi, for hire)	5	6	-1	At expectations
11. Utilities/Construction	2	4	-2	At expectations
12. Aerial Application	4	16	-12	Worse than expected
13. Personal/Private	3	22	-19	Worse than expected

At the top of the list, Air Ambulance helicopters fly about 16 percent of all the industry's hours, so it would be expected that they also would experience about 16 percent of the accidents. However, this is not the case. Only 7 percent of helicopter accidents involve an Air Ambulance mission, resulting in a positive variance of nine points. At the bottom of the list, Personal/Private pilots fly only 3 percent of all flight hours, but they have 22 percent of the accidents. (A negative variance of 19.)

The USHST also looked at the same comparison for fatal accidents involving civil helicopters.

<u>Industry</u>	<u>% of Flight Hours</u>	<u>% of FATAL Accidents</u>	<u>Variance</u>	
1. Instructional	17	7	+10	Better than expected
2. Aerial Observe/Police/News	18	11	+7	Better than expected
3. Air Tour/Sightseeing	10	4	+6	Better than expected
4. Other (positioning, proficiency)	5	0	+5	Better than expected
5. Offshore/Oil	8	4	+4	Better than expected
6. Air Ambulance	16	13	+3	Better than expected
7. Firefighting	3	0	+3	Better than expected
8. External Load	5	3	+2	At expectations
9. Business/Corporate	4	5	-1	At expectations
10. Commercial (air taxi, for hire)	5	9	-4	Worse than expected
11. Aerial Application	4	10	-6	Worse than expected
12. Utilities/Construction	2	9	-7	Worse than expected
13. Personal/Private	3	25	-22	Worse than expected

Although instructional flying, aerial observation and air ambulance operations have somewhat higher amounts of fatal accidents, the numbers are lower than would be expected when compared to the share of flight hours. Note that Air Ambulance stays in the top tier, but does fall from first to the sixth position. This may be because their missions are sometimes carried out in poor weather or in challenging landing areas where the risk of a serious accident is higher.

At the bottom of the list, with more fatal accidents than expected are Commercial, Aerial Application, Utilities/Construction and Personal/Private flying. This stems in part because of various risk factors: low-altitude operations, the need to fly near wires, or the higher number of private helicopters with less experienced pilots.

Commercial operations, Aerial Application and Personal/Private flying are three areas that the USHST is focusing on with proposed safety enhancements in order to reduce the fatal accident rate 20 percent by 2020. The data presented here is being used by the USHST to concentrate its efforts in areas of the industry with worse than expected accident and fatality rates.

Since 2013, the U.S. Helicopter Safety Team has focused on enhancing safe operations and reducing fatal accidents within the U.S. civil helicopter community. From 2012 to 2014, the average number of U.S. accidents per year was 146 and the average number of fatal accidents each year was 25. From 2015 to 2017, this has decreased to 118 total accidents per year (down 19%) and 18 fatal accidents per year (down 28%).