U.S. Rotorcraft Accident Data

Presented By: Lee Roskop
AIR-682, Safety Management Section
Rotorcraft Standards Branch
1,302
211
402
U.S. Rotorcraft Safety, last 10 Years:  
Jan 2009 through Aug 2018

1,302
Accidents

211
Fatal Accidents

402
Fatalities
U.S. Rotorcraft Safety, last 10 Years: Jan 2009 through Aug 2018

1,302 Accidents
16% of accidents resulted in a fatality

402 Fatal Accidents

Fatalities
U.S. Rotorcraft Safety, last 10 Years: Jan 2009 through Aug 2018

1,302 Accidents

211 Fatal Accidents

402 Fatalities

Approximately 31,492,373 Hours Flown

Hours from FAA’s General Aviation & Part 135 Activity Survey and FAA Forecast
U.S. Rotorcraft Safety, last 10 Years: Jan 2009 through Aug 2018

1,302 Accidents
211 Fatal Accidents
402 Fatalities

Approximately 31,492,373 Hours Flown

4.13 Accident Rate per 100K Hrs

Hours from FAA's General Aviation & Part 135 Activity Survey and FAA Forecast
U.S. Rotorcraft Safety, last 10 Years: Jan 2009 through Aug 2018

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0.67 Fatal Accdt Rate per 100K Hrs

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U.S. Rotorcraft Safety, last 10 Years: Jan 2009 through Aug 2018

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1.28 Fatality Rate per 100K Hrs

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Fatality Rate per 100K Hrs

Hours from FAA’s General Aviation & Part 135 Activity Survey and FAA Forecast
U.S. Rotorcraft Fatal Accident Rate
Most Recent 10 Years

Rate calculations based on the following:
1) Fatal accidents based on FAA and NTSB data.
3) 2018 rate is for Jan-Aug only.
U.S. Rotorcraft Fatal Accident Rate Compared to USHST Goal by 2020

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Green Dot = U.S. Helicopter Safety Team Goal
-Reduce helicopter fatal accident rate 20% in 4 years (2016-2019) to no more than 0.61 per 100K hours by 2020.
U.S. Rotorcraft Fatality Rate
Most Recent 10 Years

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U.S. Rotorcraft Fatal Accident Rate
By Certification Basis and Engine Installation
Jan 2009 through Aug 2018

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U.S. Rotorcraft Fatal Accident Rate by
By Certification Basis and Engine Installation
Jan 2009 through Aug 2018

Typical operations
- Offshore, HAA
- HAA
- HAA, Air Tour, Utility Patrol, Law Enforcement
- Personal/Private, Aerial Application, Instructional/Training

Overall safety performance is influenced by the complete safety system…
Certification, Manufacturing, Operations, and Maintenance
U.S. Rotorcraft Fatal Accidents
By Industry, Jan 2009 through Aug 2018

- Personal/Private, 25%
- Helicopter Air Ambulance, 13%
- Aerial Application, 10%
- Aerial Observation, 6%
- Instructional/Training, 7%
- Utilities Patrol/Construction, 9%
- Commercial, 9%
- Business, 5%
- Law Enforcement, 4%
- Air Tour/Sightseeing, 4%
- Offshore, 4%
- External Load, 1%
- Electronic News Gathering, 1%
- Firefighting, 0.5%
- Logging, 1%
Top 3 Industries = 48% of Fatal Rotorcraft Accidents

- Personal/Private: 25% (Account for ≈3% of all rotorcraft annual flight hours)
- Helicopter Air Ambulance: 13% (Account for ≈16% of all rotorcraft annual flight hours)
- Aerial Application: 10% (Account for ≈4% of all rotorcraft annual flight hours)
U.S. Rotorcraft Accidents
By Industry, Jan 2009 through Aug 2018

- Aerial Application, 16%
- Instructional/Training, 18%
- Personal/Private, 22%
- Helicopter Air Ambulance, 7%
- Law Enforcement, 6%
- Commercial, 6%
- Aerial Observation, 5%
- Utilities Patrol / Construction, 4%
- Air Tour / Sightseeing, 4%
- External Load, 3%
- Business, 3%
- Offshore, 3%
- Firefighting, 1%
- Logging, 0.4%
- Electronic News Gathering, 0.3%
- Unknown, 0.5%
Top 3 Industries = 56% of Rotorcraft Accidents

Personal/Private: 22% (Account for \( \approx 3\% \) of all rotorcraft annual flight hours)

Instructional/Training: 18% (Account for \( \approx 17\% \) of all rotorcraft annual flight hours)

Aerial Application: 16% (Account for \( \approx 4\% \) of all rotorcraft annual flight hours)
U.S. Rotorcraft Fatal Accident Rate
By Industry
Jan 2009 through Aug 2018

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What action should I take after seeing these numbers?

• **Consider what risks you can look into further.**
  – Are you involved in any of the industry sectors that historically have had higher fatal accident rates?
  – If so, do you know the common problems that have led to fatal accidents in that industry sector?
  – If you don’t know the common problems, do you know where to look to find them and, more importantly, how to prevent them?

• **Have you visited the U.S. Helicopter Safety Team’s website to connect yourself with the resources and initiatives they have available?**
Contact Information

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