



NTSB National Transportation Safety Board

Office of Aviation Safety

Midair Collision of ENG Helicopters

Investigator-in-Charge
Presentation

History of Flight

- **July 27, 2007**
- **1246 mountain standard time**
- **Phoenix, Arizona**
- **Channel 3: KTVK-TV, Eurocopter AS350B2**
- **Channel 15: U.S. Helicopters, Eurocopter AS350B2**

Accident Helicopter



NTSB



Accident Helicopter



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History of Flight

- Helicopters dispatched to cover police pursuit
- Operated under 14 CFR Part 91
- Visual meteorological conditions
- Each helicopter had pilot/reporter and photographer
- Helicopter occupants killed; both helicopters destroyed

History of Flight

- Three ENG helicopters and police helicopter also operating in area
- Pilots responsible for communicating position and intent to other ENG pilots

History of Flight

- Four minutes before accident, channel 3 and 15 pilots' last communication with each other
- One minute before accident, helicopters' flightpaths over ground were similar
- Helicopters moved closer together toward end of their flights

History of Flight

- Both pilots reporting during final minute of flight
- Pilots' attention focused on ground events
- One or both pilots lost awareness of other helicopter's position

Aerial View of Accident Site



Helicopter Flightpaths

- Mode C radar altitude data
- Video recorder information

Channel 3
1245:25, 2,000 ft

Channel 15
1245:24, 2,200 ft

0.2 nm/1,216 feet

Google

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elev: 1,116 ft

Nov 2005

Eye alt: 9386 ft

33°29'45.29" N 112°04'22.87" W

Channel 3

1245:45, 2,000 ft

Channel 15

1245:50, 2,300 ft

0.2 nm/1,216 feet

Google

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elev. 1116 ft

Nov 2005

Eye alt 9386 ft

33° 29' 45.29" N 112° 04' 22.67" W

Channel 3
1246:00, 2,100 ft

Channel 15
1245:59, 2,300 ft

Channel 15
1245:54, 2,300 ft

0.2 nm/1,216 feet

Google

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elev. 1116 ft

Nov 2005

Eye alt 9386 ft

33° 29' 45.29" N 112° 04' 22.67" W

Channel 3
1246:05

Channel 15
1246:08

Truck stops here
1246:05

0.2 nm/1,216 feet

Google

© 2008 Tele Atlas
elev. 1116 ft

Nov 2005

Eye alt 9386 ft

33° 29' 45.29" N 112° 04' 22.67" W





Collision

0.2 nm / 1,216 feet

Google

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elev. 1116 ft

Nov 2005

Eye alt 9386 ft

33° 29' 45.29" N 112° 04' 22.67" W



Collision

Channel 15
Channel 3

0.2 nm / 1,216 feet

Google

© 2008 Tele Atlas
elev 1116 ft

Nov 2005

Eye alt 9386 ft

33° 29' 45.29" N 112° 04' 22.67" W

Safety Issues

- Pilot workload and limitations of see-and-avoid concept
- Methods for improving ENG pilot's awareness of other aircraft
- Need for safety meetings of FAA and ENG operators and ENG best practices guidelines
- Benefits of flight recorder systems for smaller aircraft

Parties to the Investigation

- Federal Aviation Administration
- KTVK-TV
- U.S. Helicopters, Inc.
- National Air Traffic Controllers Association

Accredited Representative

- Bureau d'Enquêtes et d'Analyses pour la Sécurité de l'Aviation Civile (BEA)
- Technical advisors: Eurocopter and Turbomeca



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