Safety Recommendations and Safety Alert
Safety Recommendations

- Adopted two recommendations
- Addressed to FAA and companies that operate FCTs
- Educate controllers on circumstances of accidents
- Controllers in both accidents made judgment errors
Moncks Corner, SC

- Controller assumptions
  - Cessna would remain in traffic pattern
  - F-16 performance
  - Recommended left turn, but safer options available
San Diego, CA

- Local controller made several judgment errors
  - Exceeded personal workload limit
  - Misidentified and issued instructions to wrong airplane
  - Did not ensure compliance
  - Safety alert not issued
Training and Guidance to ATC

• Enhance training through review of these events
• Ideal opportunity to impart lessons
Safety Alert

• See and avoid
  • Foundation of midair collision prevention
  • Inherent limitations
  • Leaves pilots vulnerable to unseen aircraft
Technologies

- In-cockpit display or alert of traffic conflicts
  - Traffic advisory systems (TAS)
  - Automatic dependent surveillance-broadcast (ADS-B)
- Can augment reality and compensate for limitations of visual-only search
Moncks Corner, SC

- Pilots had limited opportunity to see and avoid each other
- Not equipped with traffic display or alert technology
- Presence might have changed outcome
Display and Alerting of Traffic

• Simulations from perspective of each pilot
• Does not duplicate any particular display
Traffic target
“12 o’clock” (directly ahead)
11 nm distant
1000 ft. below ownship
Eastbound (towards ownship)
San Diego, CA

- Pilots’ fields of view limited and partially obscured at times
- Not equipped with traffic display or alert technology
- Presence might have changed outcome
What can pilots do?

• Recognize benefits of technologies
• Become familiar with limitations
• Use information to separate before evasive maneuvers necessary
• Most technologies (without RA) should aid visual search and separation
• More information in our safety alert at www.ntsb.gov