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*Office of Aviation Safety*

# **Pilot Workload and Collision Avoidance**

Human Performance Presentation

# Tasks

- Pilots performing flight tasks to track ground activities
  - Ground referencing
  - Maintaining position and altitude
  - Ensuring separation from other helicopters
- Also directly supporting ENG operations
  - Communicate with station personnel
  - Scan broadcast monitor
  - Obtain information about pursuit
  - Narrate broadcast

# Collision Avoidance

- See-and-avoid concept involves visual scanning for other aircraft
- Inherent limitations due to human and aircraft factors
- To support ENG, pilots need to divide visual attention between air and ground

# Communications

- Informal communications protocol to aid collision avoidance
- Position reporting on common air-to-air frequency
- Announcing and monitoring position changes difficult while reporting

# ENG Pilot Workload

- Direct ENG tasks can reduce time and attention available for flight tasks
- Attention focused on emerging situation on ground
- One or both pilots lost awareness of other helicopter

# Summary

- Incident reports show ENG workload can affect safety when multiple aircraft nearby
- Postaccident changes to reduce pilot workload
- Evaluation of traffic density would help ENG operators determine crew requirements based on anticipated workload



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