PROPOSED HELICOPTER SAFETY ENHANCEMENTS

VISIBILITY AND LOSS OF CONTROL

(22) Detection and Management of Risk Level Changes.
Develop and promote recommended practices for pilot and nonflying crewmembers to 1) detect increased risk levels during the course of a flight, 2) effectively communicate the increased risk level to each other, 3) and make a decision on the appropriate risk mitigation. Initiative: education workshop and materials.

(127a) Recognition & Recovery of Spatial Disorientation.
Develop training for recognition of spatial disorientation and recovery to controlled flight. Emphasize the use of all available resources installed on the aircraft, including automation such as increased use of autopilot. Initiative: training materials.

RISK MANAGEMENT

(28) The Final Walk Around.
Develop guidelines and recommended practices for helicopter preflight inspection, final walk around, and post flight inspection and promote the recommended practices to the training community and general pilot community. Initiative: best practices document.

(90) UAS in High Risk Environments.
Encourage the increased use of UAS and continued development of OPA to supplement and support manned operations in high-risk operations or environments. Initiative: vision paper.

(125) Pre-Flight Risk Assessment for Student Flights.
Provide recommended practices to instructors for pre-flight risk assessment of student flights. Initiative: best practices document.

(130) Hazards of Over the Counter Medication.
Emphasize the hazards of pilots flying impaired by sedating over-the-counter medications — particularly antihistamines — through renewed education and awareness initiatives. Initiative: GAJSC reference tool.

ENHANCED TRAINING

(81) Simulators and Outside-the Envelope Flight Conditions.
Provide recommendations for improving simulator mathematical physics models for level A-D Full Flight Simulators and Level 1-7 Aviation Training Devices for outside-the-envelope flight conditions. Initiative: report.

(116) Make & Model Transition Training.
Improve make and model transition by ensuring familiarity and the understanding of new "model specific" equipment. Initiative: best practices document.

(123) Simulations for Safe Decision Making.
Increase the use of relevant simulation to rehearse at-risk scenarios to educate and to develop safe decision-making. Initiative: Advisory Circular or other educational document.

TECHNOLOGY SUPPORT

(70) Stability Augmentation System/Autopilot.
Encourage the development and installation of a stability augmentation system (SAS) and/or simple autopilot in light helicopters. Initiative: vision paper.

(82) Flight Data Monitoring.
Promote the installation and use of data recording devices (e.g. HFDM, camera recording) to detect and monitor aircraft and engine limitations that were exceeded, to collect and preserve more data relevant to accident investigation, and to detect and correct procedural noncompliance. Initiative: promotional campaign.

(91) Enhanced Helicopter Vision Systems.
Research, develop, and promote the use of enhanced helicopter vision systems technologies (e.g. Night Vision Goggles, Enhanced Vision Systems, Synthetic Vision Systems, Combined Vision Systems, etc.) to assist in recognizing and preventing unplanned flight into degraded visibility conditions due to weather and to increase safety during planned flight at night. Initiative: research paper.

PILOT COMPETENCY

(13) Utilities and Construction Guide.
Promote the recommended practice guides for utility patrol operations within industry and its customers. Initiative: promotional campaign.

(19A) Safety Culture and Professionalism.
Develop a definition of an effective safety culture that is more applicable and relatable to the day-to-day work of frontline helicopter professionals. Once developed, promote an understanding of this application-based definition to the helicopter community. Initiative: Go Local workshops and ambassador list.

(30) Development of Airman Certification Series for Rotorcraft.
Develop and publish the new Airman Certification System (ACS) Rotorcraft-Helicopter series to replace the current Practical Test Standards (PTS) for internal and external industry stakeholders for airman certification. Initiative: updated Airman Certification document.

(124) Understanding of Basic Helicopter Aerodynamics.
Review and revise materials explaining basic helicopter aerodynamics to emphasize recognition of unsafe aerodynamic situations and apply appropriate corrective actions. Initiative: interim Pilot Handbook.