

DRAFT FY22 Strategic Guidance Elements

Presented to: REDAC SAS

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Introduction

- **The Strategic Guidance emphasizes areas of particular importance to aircraft safety based on hazards, risks, and safety issues that drive AVS research needs.**
- **The Strategic Guidance is approved by AVS-1 and distributed to all AVS Services & Offices.**
- **The FY22 Strategic Guidance draft has been delayed. AVS-1 approval is expected in May.**

Strategic Guidance

The Strategic Guidance ...

- Highlights focused safety hazard and risk data to the research sponsoring offices
- Provides examples of safety hazard and risk data that drive research; however research sponsors should also consider other data sources
- Supports implementation of Safety Management System (SMS) processes
- Gives guidance for sponsoring offices and TCRGs to consider as they develop requirements
- Used by sponsor management to apply adequate resources for requirement development

The Strategic Guidance is NOT...

- AVS Strategic Guidance is not a checklist for the AVS RED Group

FY22 AVS R&D Strategic Guidance Elements

- **Aviation Safety Hazards and Risks for AVS-Wide Consideration**
- **Risks to Aviation Safety in the Current NAS**
 - Commercial Aviation, Part 121 (CAST)
 - General Aviation (GAJSC)
 - Rotorcraft (USHST)
 - Unmanned aircraft (UAST)
- **Emerging Risks to Aviation Safety (Part 121)**
 - Potential Sources
 - AVS
 - Safety Teams
 - REDAC
- **System Level Safety Issues**
 - Risk-Based Decision Making Strategic Initiative
- **Key Technology Areas**

Back-Up Slides



Acronyms & Key Terms

ARC: Any landing or takeoff involving abnormal runway or landing surface contact.

CFIT: Controlled Flight Into or Toward Terrain. In-flight collision or near collision with terrain, water, or obstacle without indication of loss of control.

Fire-NI: Fire/Smoke (Non-Impact). Fire or smoke in or on the aircraft, in flight or on the ground, which is not the result of impact.

Fuel: Fuel related. One or more powerplants experienced reduced or no power output due to fuel exhaustion, fuel starvation/mismanagement, fuel contamination/wrong fuel, or carburetor and/or induction icing.

GCOL: Ground Collision. Collision while taxiing to or from a runway in use.

ICE: Icing. Accumulation of snow, ice, freezing rain, or frost on aircraft surfaces that adversely affects aircraft control or performance.

LALT: Low Altitude Operations.

LOC-G: Loss of Control – Ground. Loss of aircraft control while the aircraft is on the ground.

LOC-I: Loss of Control – In Flight. Loss of aircraft control while or deviation from intended flight-path in-flight.

MAC: Midair/Near Midair Collision. Airprox, ACAS alerts, loss of separation, as well as near collisions or collisions between aircraft in flight.

Other: Any occurrence not covered under another category.

Other-Bird: Occurrences involving collisions / near collisions with bird(s) / wildlife

Ramp: Ground Handling. Occurrences during (or as a result of) ground handling operations.

RE-Landing: Runway Excursion Landing. A veer off or overrun off the runway surface.

RE-Takeoff: Runway Excursion Takeoff. A veer off or overrun off the runway surface.

RI: Runway Incursion: – vehicle, aircraft or person. Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft.

RNAV: Area Navigation. A method of navigation that permits aircraft operation on any desired flight path within the coverage of navigation aids

SCF-NP: System/Component Failure or Malfunction (Non-Powerplant). Failure or malfunction of an aircraft system or component – other than the powerplant.

SCF-PP: System/Component Failure or Malfunction (Powerplant). Failure or malfunction of an aircraft system or component – related to the powerplant.

TURB: Turbulence Encounter. In-flight turbulence encounter.

UNK: Unknown or Undetermined. Insufficient information exists to categorize the occurrence.

USOS: Undershoot/Overshoot. A touchdown off the runway/helipad/helideck surface.

WSTRW: Windshear or Thunderstorm. Flight into windshear or thunderstorm.