FAA Helicopter Operations Modernization (HMT)

Presented to: USHST IWG
By: Nolan Crawford
Date: Apr 5, 2022
Helicopter Modernization Team
Mission Statement

To provide management with the information and necessary tools to bring all aspects of Helicopter Operations into the future. This includes, evolving to encompass New Entrants Vehicles. Working with all FAA LOB’s as well Stakeholders that have direct and indirect considerations for Helicopter Modernization in order to update all current ACs, Orders and FARs relevant to Helicopter Operations.
HMT Team Member / Divisions

- AFS-200 Air Transportation Division
- AFS-400 Flight Technologies and Procedures Division
- AFS-800 General Aviation & Commercial Division
- Aircraft Certification (future)

Lines of Business communicated with regularly:

- Office of Airports
- Air Traffic Organization
- Aircraft Certification

Our Goal open the lines of COMMUNICATIONS:
Projects that HMT Members are involved

- Heliport Evaluation
- Heliport Surveys Standards
- Airport Data and Information Portal
- Notice for Construction, Alteration and Deactivation of Airports (7480-1) Process
- Special Instrument Flight Procedures
- FAA Orders/Criteria
- 5G Guidance for Helicopter
- Rural Weather- Visual Weather Observation System (VWOS)
- Vertiports Engineering Brief (EB)
- Procedure Adaptation Requirements
Heliport Evaluation

Proponent
- FAA Form 7480-1 Notice for Construction, Alteration, and De-activation of Airports

Flight Technologies and Procedures Division (FT&PD)
- Heliport Evaluation Guidance / Checklist - FAA Order 8900.1 (Volume 8, Chapter 3, Section 3)

Flight Standards District Office (FSDO)
- Heliport Evaluations – utilizing the FAA Order 8900.1 guidance

Procedure Evaluation Pilot (PEP)
- Heliport Evaluation – utilizing the 8900.1 and approved checklist
7480-1 Process

Current
- LOC-IDs potential delays long to process
- Information not specific to heliports
- Some information incorrect / Airport Master Record/5010

Future
- Tied to ADIP to improve processing timeliness
- Heliport Data Centric
- Reduce touch points
- Transparency between Proponent & FAA
Helicopter Instrument Flight Procedures

VFR
• Lack of established procedure in less than ideal conditions
• Increased IIMC possibility

Point in Space (PinS)
• Proceed VFR Approaches and Departures
• Proceed Visually Approaches and Departures

Future IFR Procedures
• Non-Precision Approach to IFR Heliport
• Precision Approach to an IFR Heliport
• AC 150/5390-2 IFR Table
• Heliport Surveys Standards
Orders and Criteria

FAA Order 8260.42 does not move helicopter operations into the future
  • outdated and limited to VFR heliports
  • does not apply PBN concepts
  • only allows for legacy RNAV operations

Goal is to modernize helicopter operations
  • Develop an IFR heliport infrastructure and criteria for Non-PinS and PinS procedures
  • Allow for PBN and Ground Based Navaids
Establish criteria and infrastructure to enable IFR operations to/from IFR and VFR designated heliports.

- Update Directives
- Improve Infrastructure
- Define Airspace, Data, IFP Automation requirements

Efforts designed to:

- Support HR Bill 302 Sec 314 and other Agency needs
- Allow for LEVEL OF SERVICE directed process
Orders and Criteria to evolve

FAA Order 8260.42: United States Standard for Helicopter Area Navigation (RNAV)
  • Incorporated into FAA Order’s 8260.3, 8260.19, 8260.46, and 8260.58
  • Cancellation upon incorporation into other FAA Orders

FAA Order 8260.3: United States Standard for Terminal Instrument Procedures (TERPS)
  • Incorporated applicable approach and departure design criteria for general and conventional helicopter requirements

FAA Order 8260.19: Flight Procedures and Airspace
  • Authorized RNP 0.3 (Terminal Routes and ATS Routes "TK")

FAA Order 8260.46: Departure Procedure (DP) Program
  • Updated to add PBN RNP 0.3 Departure requirements

FAA Order 8260.58: United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design
Combined FS and LOBs Deliverables

- Criteria update
- Improved Helicopter Approach/Departure Capabilities
- Improved 7480-1 Process
- Improved Heliport Inspection Process (8900.1)
- Improved Data Process (ADIP)
- Heliport Survey Standards
- Standards for instrument procedure added to Heliport Design AC
- Established Heliport Infrastructure
- Defined Automation Requirements
- Defining Helicopter Low Altitude Infrastructure Requirements.
The FAA ask of Industry:

What else?
QUESTIONS