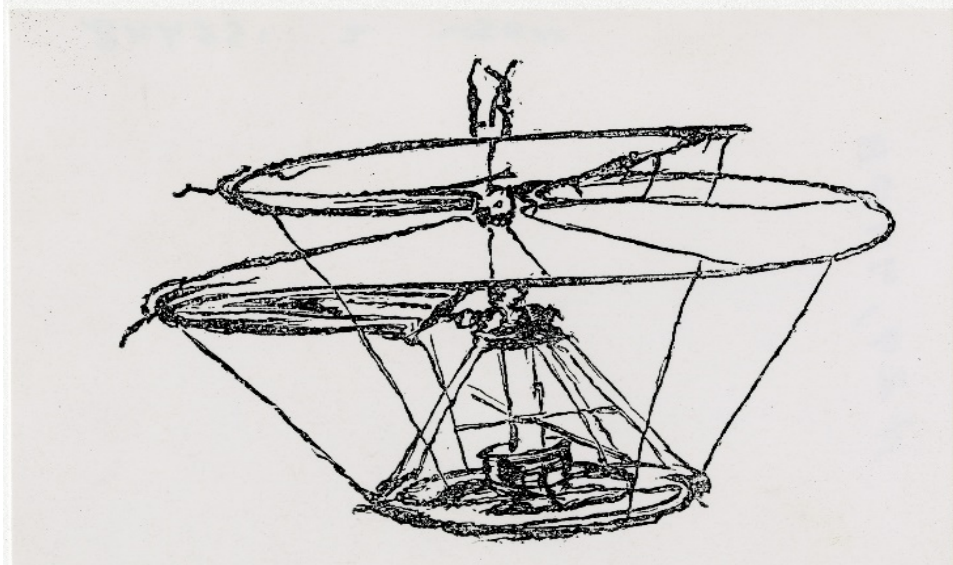




Federal Aviation
Administration

FAA Helicopter Operations Modernization



2021 USHST Infrastructure

Presented to: **Summit**

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Date: Feb 24, 2021



Purpose

Outline Flight Standards strategy to move Helicopter Operations into the future

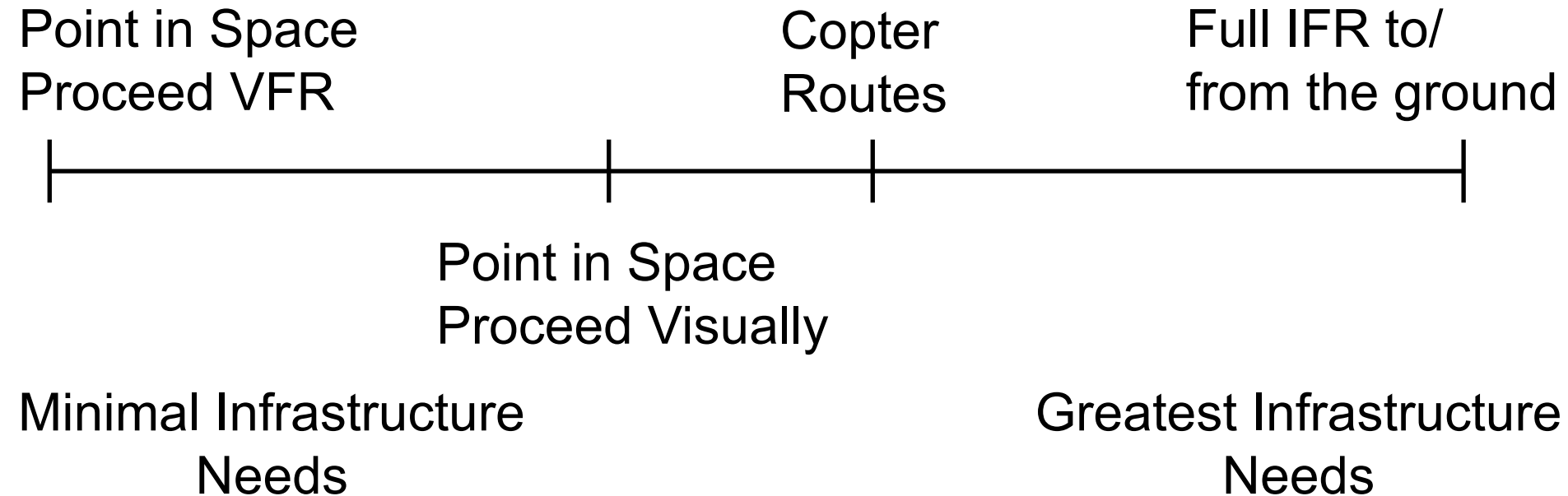
Process

- **Heliport Evaluation**
- **7480-1 Process**
- **Instrument Flight Procedures**
- **Orders/Criteria**
- **Roles and Responsibilities**
- **Deliverables**

US Helicopter Needs

Level of Service Spectrum

Spectrum of IFR Operations



Differing Infrastructure Needs

Heliport Evaluation

Proponent

- FAA Form 7480-1 Notice for Construction, Alteration, and de-activation of Airports
- FAA Form 5010-3 Airport Master Record

Flight Technologies and Procedures Division (FT&PD)

- Heliport Evaluation Checklist Job Aid FAA Order 8900.1
- LOC-ID Facilitation

Flight Standards District Office (FSDO)

- Heliport Evaluation Checklist Job Aid FAA Order 8900.1

Procedure Evaluation Pilot (PEP)

- Heliport Evaluation Checklist Job Aid FAA Order 8900.1
- Special Instrument Procedures

7480-1 Process

Current

- LOC-ID's Long to Process
- Not specific to Heliports
- Information incorrect /5010

Future

- Improve processing timeliness
- Heliport Data Centric
- Reduce touch points
- Transparency between Proponent & FAA

Instrument Flight Procedures

VFR

- Lack of established Procedure in Less than ideal conditions
- Increased IIMC possibility

Point in Space (PinS)

- Proceed Visually
- Proceed VFR

IFR

- Non-Precision Approach to IFR Heliport
- Precision Approach to an IFR Heliport
- AC 150/5390-2 IFR Table

AC 150/5390-2 IFR Table

	Precision approach to IFR heliport	Precision Approach to IFR heliport	Non-precision Approach to IFR Heliport	Approach to Point in Space Proceed Visually	Approach to Point in Space proceed VFR
Visibility Minimums	1/4 SM	1/2 SM ¹	HAL=250-600: ½ SM HAL=601-800: ¾ SM HAL>800: 1 SM	¾ SM ⁶	¾ SM day, 1 SM night ⁷
Height above heliport	200' AGL	200' AGL	250' AGL	≥250'	≥250'
Heliport Type	IFR	IFR	IFR	VFR	VFR
Obstacle Clearance Surface	34:1 Clear ²	34:1 Clear ²	Std Non-precision ROC	8:1 Clear	8:1 Clear
Heliport Size⁵	Helicopter size dependent	Helicopter size dependent	Helicopter size dependent	Helicopter size dependent	Helicopter size dependent
Heliport Markings	Standard	Standard	Standard	Standard	Standard
Heliport Lights³	Required	Required	Required	Required	Required
Survey Required	Yes	Yes	Yes	No ⁸	No
Type Survey	Module C	Module C	Module B	Module A	VFR Certification
Approach Light System	Yes	No	No	No	No
HPZ helicopter protection	Yes	Yes	Yes	Yes	Yes
Final Approach Reference Area (FARA)	Yes	Yes ⁴	No	No	No





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
- **Need to modernize helicopter operations**
 - Develop IFR heliport infrastructure and criteria for Non-PinS and PinS procedures
 - Allow for PBN and Ground Based Nav aids

Orders and Criteria

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

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 FAA Orders**

FAA Order 8260.3: United States Standard for Terminal Instrument Procedures (TERPS)

- Incorporated applicable approach and departure design criteria for VFR and IFR heliports
- Established Diverse and DP routes, and Conventional DP from heliport
- Defined Types of Approach (IFR to VFR Heliport, IFR to IFR Heliport, IFR to VFR Runway, IFR to Unmarked Landing Area)
- Defined term Unmarked Landing Area and included criteria to arrive and depart from them

Orders and Criteria

FAA Order 8260.19: Flight Procedures and Airspace

- Authorized RNP 0.3 (Terminal Routes and ATS Routes "TK")
- Established Heliport Planning Section
- Copter CAT II charting
- Visual Area step over of obstacle
- Documentation requirements (PinS to multiple heliports, Fictitious Helipoint (FHP), Airspeed restriction notes, coding)
- Clarified that Copter procedures do not contain circling minima

FAA Order 8260.46: Departure Procedure (DP) Program

- Updated App F (Copter RNAV PinS, Reorganize to match the order of the 8260.15B)
- Applied hover height allowance on Table 2-1-1
- Added PBN RNP 0.3 requirements
- Added Copter DP from IFR heliport to App D and E
- Added MSA's for DP's

Orders and Criteria

FAA Order 8260.58: United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design

- Implemented Performance Based Navigation (PBN)
- Clarified Reference Datum Point (RDP) on LPV approach
- Established Missed Approach Climb Gradient of 600 FT/NM before requiring approval
- Established RNAV Departure Procedure (DP) from IFR Heliport
- Redefined Initial Departure Fix Segment on PinS DP



Roles and Responsibilities

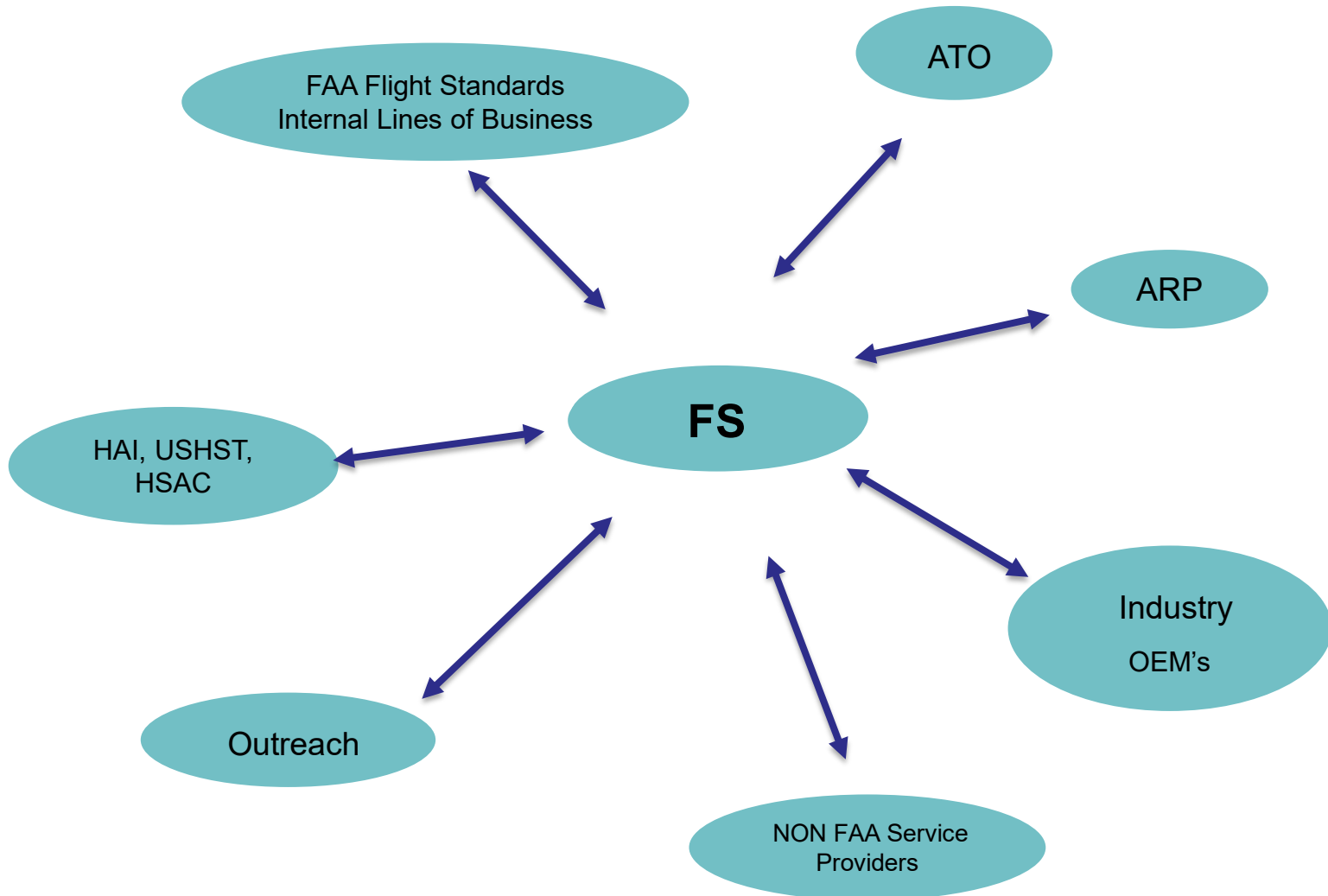
ARP, FS, and ATO

- ARP: Heliport Design Guide AC Rewrites, ADIP, 7480-1 Process, Heliport Planning, IFR Heliport Survey Standards
- **FS: Criteria Rewrite, Heliport Insp, Heliport Data Entry, Heliport Planning, VFR Heliport Survey Standards, Specials Oversight and Processing**
- ATO: Heliport Planning, IFP Validation, Automation, Data Validation, NFDD / AIRNAV, Procedure Development and Oversight, Charting



Combined FS and LOB's Deliverables

- **Criteria updated**
- **Improved Helicopter App/DP Capabilities**
- **Improved 7480-1 Process**
- **Improved Heliport Inspection Process (8900.1)**
- **Improved Data Process (ADIP)**
- **Heliport Survey Standards added to Survey AC**
- **Standards for IAP added to Heliport Design AC**
- **Established Heliport Infrastructure**
- **Defined Automation Requirements**



QUESTIONS

