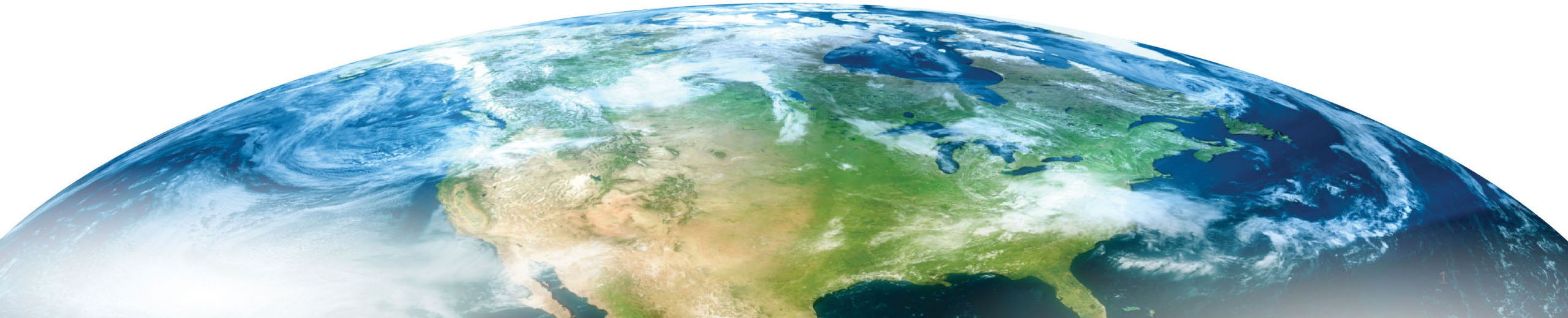
Weather Requirements Service (WRS) Process

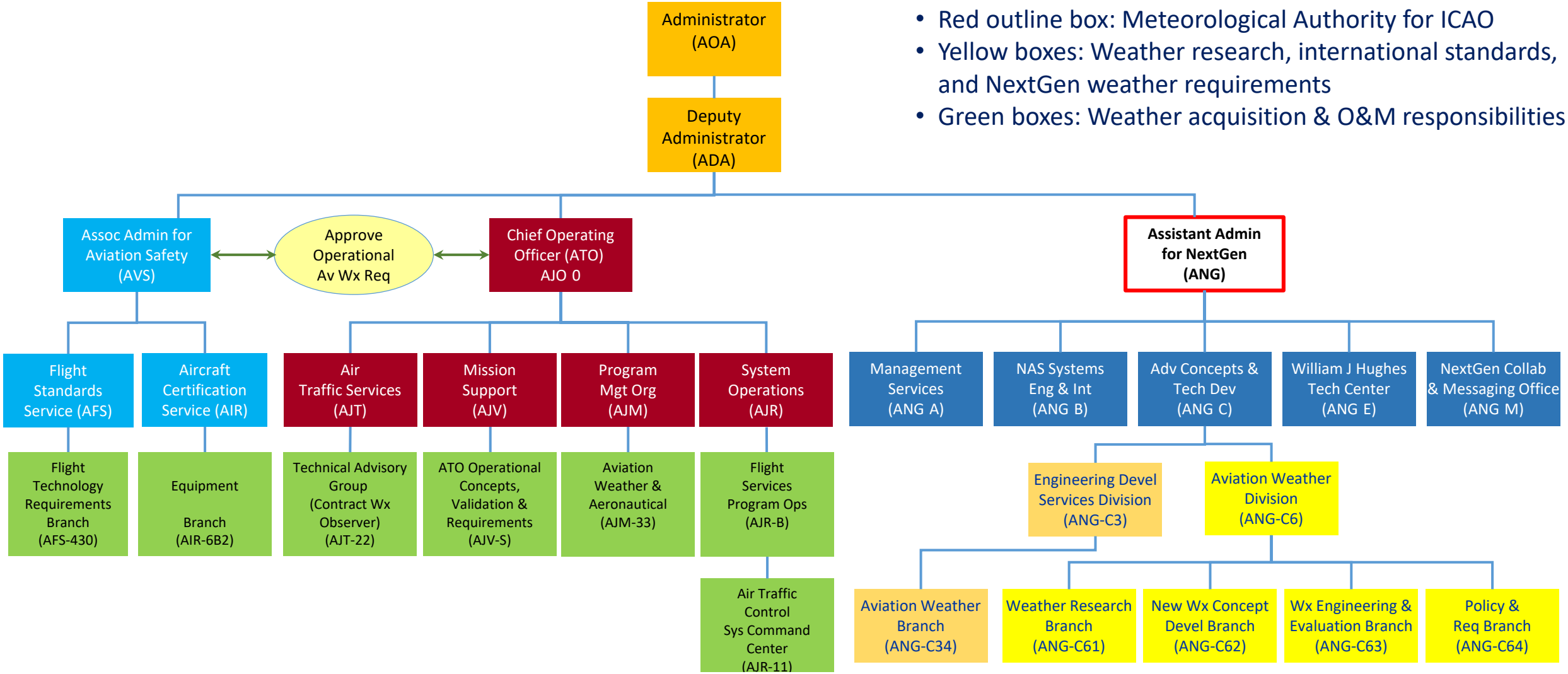
Presented by Pat Murphy, ANG-C64

September 1, 2020



Weather Across the FAA

- Red outline box: Meteorological Authority for ICAO
- Yellow boxes: Weather research, international standards, and NextGen weather requirements
- Green boxes: Weather acquisition & O&M responsibilities



Aviation Weather Division ANG-C6

Develops weather and weather-related constraint information for ready integration into decisions by pilots, controllers, dispatchers, and airport operators

Coordinates and works with FAA operations, safety and standards organizations, NWS and commercial sector to improve and integrate weather information into operational aviation decision making

Conduct quarterly PMRs

Bill Bauman

Weather Research (ANG-C61) **Randy Bass**

- AWRP
- WTIC
- Research for Service Analyses

New Weather Concept Development (ANG-C62) **Everette Whitfield**

- Contracts
- Budget
- WFI
- Aviation Weather Integration
- Safety Risk Management

Weather Engineering & Evaluation (ANG-C63) **Starr McGettigan**

- AWDE
- WOI
- QA

Policy & Requirements (ANG-C64) **Pat Murphy**

- International
- Wx Trans
- Requirements
- WIMAT
- FAA MET Expert Service

AWD Requirements Service

The FAA Wx Requirements Process Is Divided Into Five Main Phases:

1. Needs Analysis
2. Operational Concept & Use Description
3. Requirements Development & Validation
4. Formal Requirements Allocation & Transmittal
5. Post-Transmittal

Weather Needs Portal (WNP): https://www.faa.gov/nextgen/programs/weather/suggestions/

- Aviation stakeholders can use the WNP to submit requests for weather-related products and services to the Policy & Requirements Branch (ANG-C64).
- In addition to contact information, we ask for:
    - A description of the aviation weather problem
    - Existing operational gaps
    - Benefits to aviation
    - Potential users
    - The proposed solution (optional)
    - Other background information

Scan this QR Code to go directly to the WNP Submission Form

- The WNP is currently in the beta-testing phase—there will be further development in the coming months, but please feel free to use the form now to submit your weather needs and

Weather Needs Portal (WNP)

NextGen Aviation Weather Request Form

* indicates a required field.

* Title of Request:

* Request Originator Email:

* Briefly describe the problem you are trying to solve. Please don't use this field to provide a solution:

* Existing Operational Gaps:

* Benefits to aviation:

* Potential users:

Proposed solution:

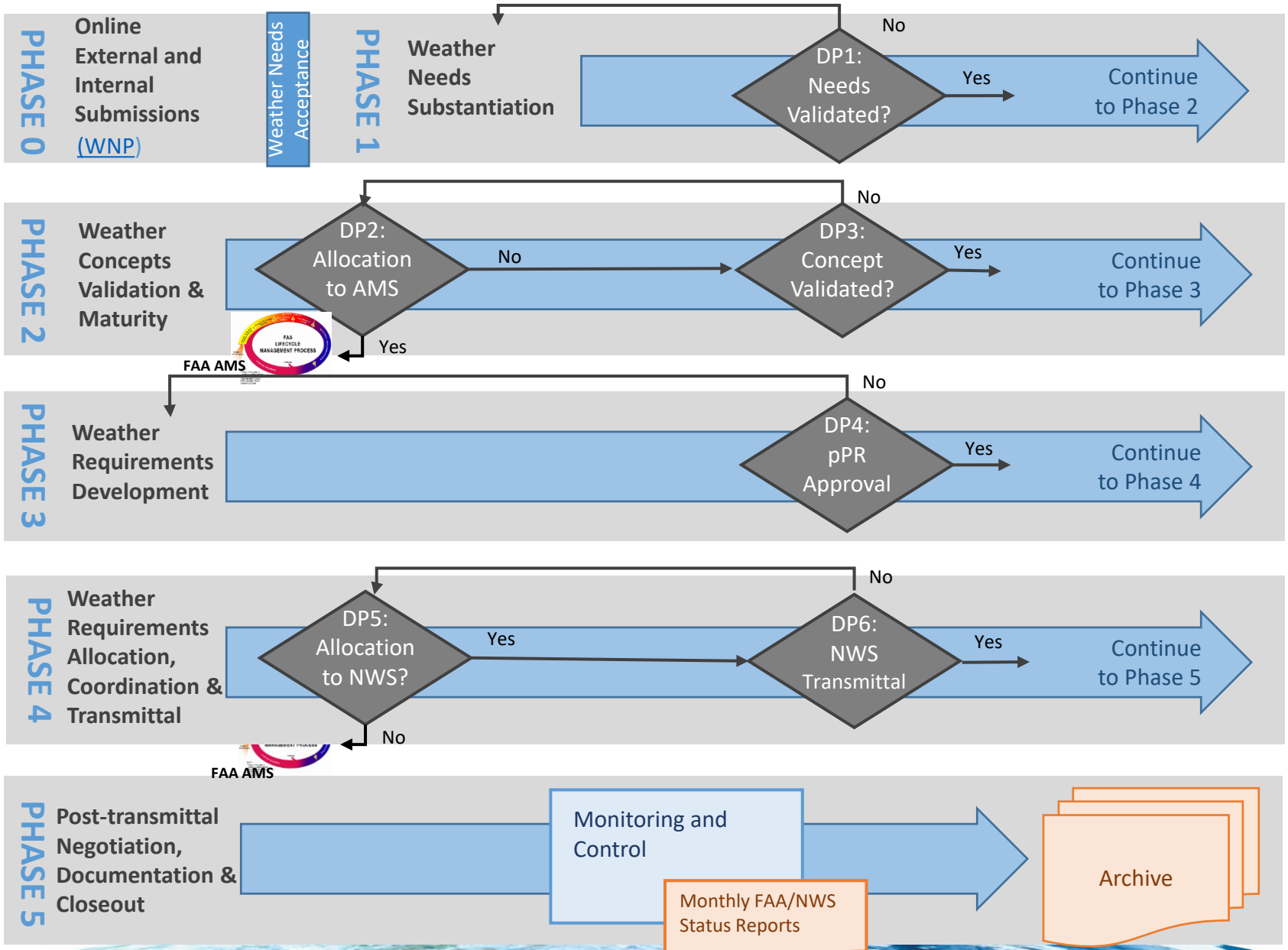
Other background information:

I'm not a robot

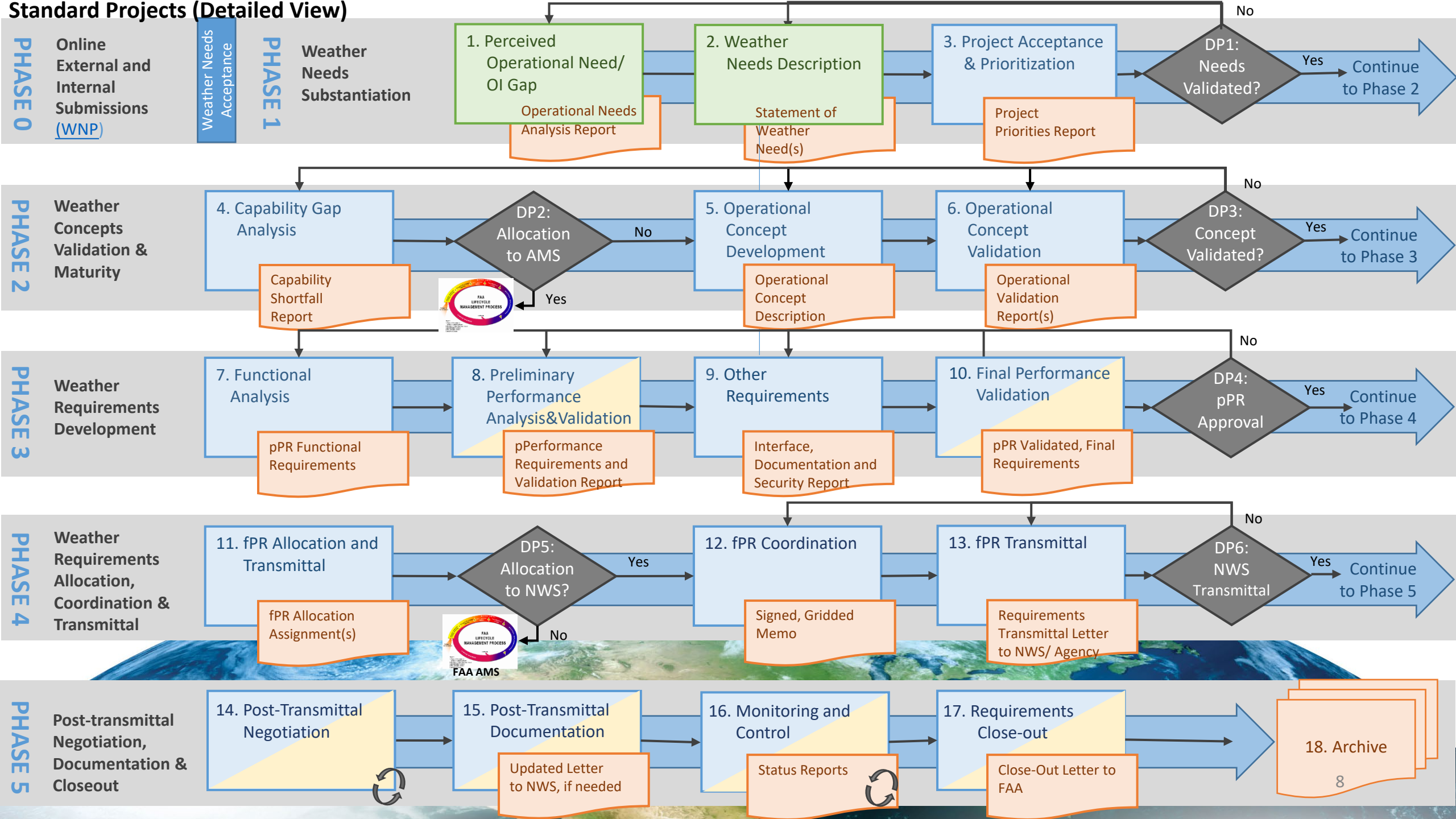
reCAPTCHA
Privacy - Terms

Submit

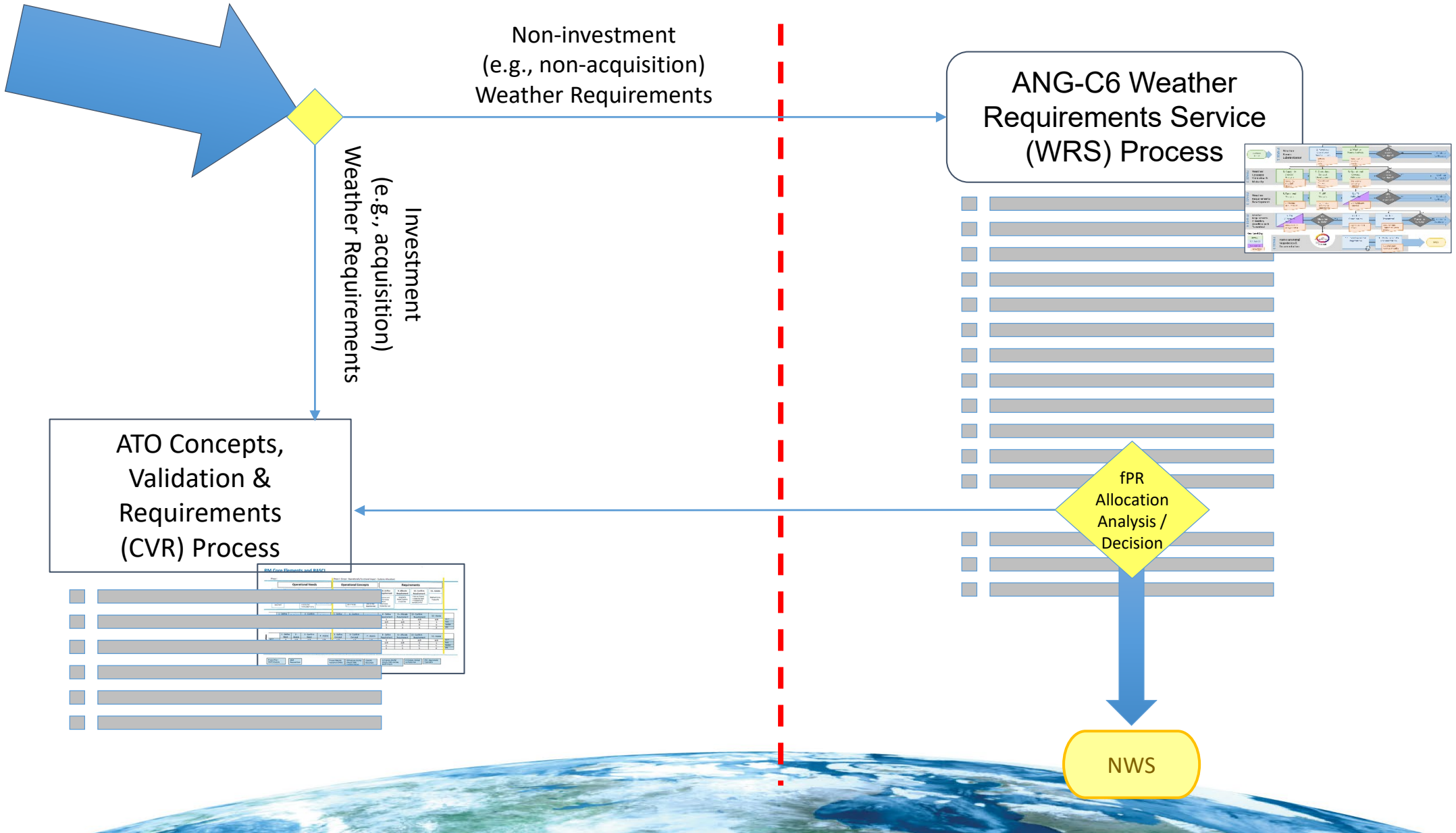
AWD Requirements Service Process



Standard Projects (Detailed View)



Alignment of Processes



ATO Concepts, Validation & Requirements (CVR) Process

- FAA process, owned by AJV-S, to understand, confirm and prioritize Air Traffic Management/ Air Traffic Control operational needs and to ensure that NAS changes addressing those needs are sound and well timed.
- AJV, AJM, ANG and Ops each play a role in the CVR Process

AJV-7's Interpretation

Operational Needs	Concepts	Requirements	Requirements / Test

Operational Needs				Operational Concepts and Requirements							Requirements / Test							
1. Define Need		2. Confirm Need		3. Define Concept	4. Confirm Concept		5. Define Requirement	6. Allocate Requirement	7. Confirm Requirement		8. Refine Requirement		9. Test		10. Confirm Requirement	11. Deploy	12. PIR	
Scope ID Mission Benefactor(s) ID Project Resources		✓In Scope (Characterize) ✓Consistent with ATO Mission Space ✓Not Duplicative ✓Articulate Priority (Define Urgency)	*GO or NO GO* *Decision or Recommendation*	Develop CONOPS	✓Operationally Viable ✓Mission Beneficial ✓Scenarios Validated ✓Recommendation	*GO or NO GO* *Decision or Recommendation*	Functional and Performance Analysis Decompose Stated/ Derived	Assigned to People, Systems or Activities	✓Test Verification ✓Meets the Need ✓Traceability to CONOPS (RTM)	*GO or NO GO* *Decision or Recommendation*	Review and Analysis ✓Develop lower level		Observation and Discovery ✓Determine Priority Level ✓Identify level of discrepancy ✓Develop mitigation plan		Observation Acceptance ✓Operational Viable ✓Traceability to CONOPS	Implementation ✓Train ✓Install	Post Implementation Review ✓Quality Control ✓Address Shortfall ✓Continuity of Service ✓Transfer Risks (accountability)	
	A. Assess		B. Assess			C. Assess				D. Assess		E. Assess		F. Assess				G. Assess
	Screen/ Review Relative Importance Org Assignment		Relative Priority Validate Resources Assign/ Redirect			Relative Priority Sequencing service evolution and ID Inter-Dependencies Assign				Relative Priority Trade-Offs Assign		Relative Priority Assign		Relative Priority Assign				Disposition

AJV-7's Interpretation

AJV-7's Interpretation

NextGen

AJV-7	S	R	S	A/R	S	A/R	A/R	S	S	A/R	A/R	R	A/R	R	A/R	A/R	C	I	AJV-7
PMO	C	S	S	S	S	S	S	A/R	A/R	S	S	A/R	S	A/R	S	S	A/R	A/R	PMO
NextGen	A/R	A/R	A/R	R	A/R	R	R	S	S	R	R	C	R	C	R	C	I	C	NextGen
OPS - AJT/ AJR/AJI/ AJW	R	R	R	R	S/I	S/I	R	S/I	S/I	S/I	R	S/I	R	S/I	R	R	R	R	OPS - AJT/ AJR/AJI/ AJW

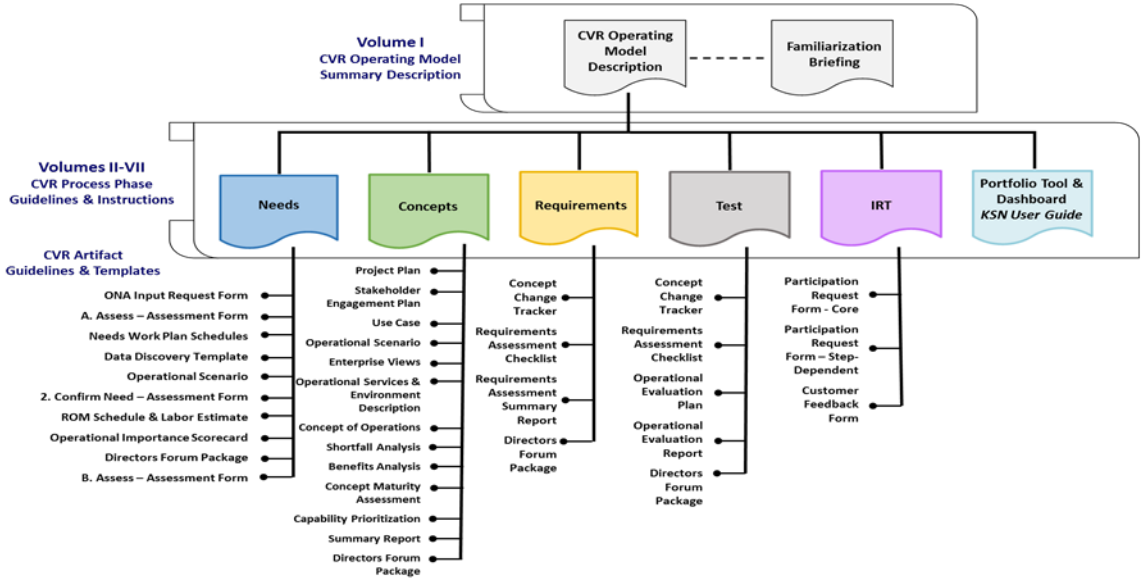
Non NextGen

AJV-7	C	A/R	A/R	A/R	A/R	A/R	A/R	S	S	A/R	A/R	R	A/R	R	A/R	A/R	C	C	AJV-7
PMO	S	S	S	S	S	S	S	A/R	A/R	S	S	A/R	S	A/R	S	S	A/R	A/R	PMO
NextGen	C	R	C	R	C	C	R	C	C	C	C	C	R	C	R	I	I	I	NextGen
AJV1, AJV5, AJV8 Service Centers	C	C	C	C															AJV1, AJV5, AJV8 Service Centers
OPS - AJT/ AJR/AJI/ AJW	A/R	R	R	R	S/I	S/I	R	S/I	S/I	S/I	R	S/I	R	S/I	R	R	R	R	OPS - AJT/ AJR/AJI/ AJW

Non NAS *(note: ABACUS / OARS is an example and this RASCI will be defined and validated during MSST II Transition Period – May-October)*

CVR Operating Model – RASCI and Talking Points PreDecisional PFT JK 13JUN17

Legend: Accountable/Responsible



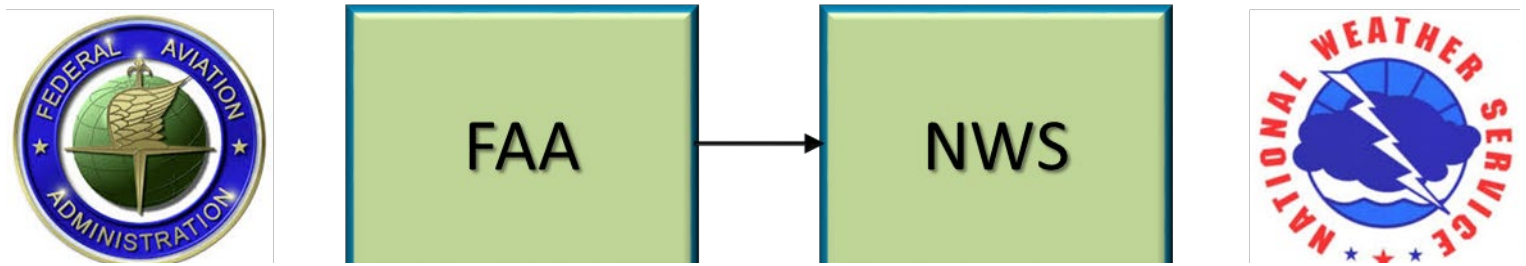
Examples of Requirements Types

Investment (e.g., acquisition) Weather Requirements	Non-investment (e.g., non-acquisition) Weather Requirements	
• NextGen MOC	• FA Transition 'Requirements' (via ARWG)	• Alaska Terminal Forecast Guidance
• NextGen FOC	• CORE 30 TFM (via TRWG)	• TFM Convective Forecast (TCF)
• NAS Top-Level Targets	• AWIPS Replacement for the Weather and Radar Processor (WARP)	• Short Range Ensemble System (SREF)
• CoSPA	• Collaborative Convective Forecast Product (CCFP) annual requirements	• Canadian Radars (CanRad)
• CIWS/ITWS	• Aviation Weather Statement (AWS) Statement of Need	• Canadian Terminals Added to AWWD
• NWP/CSS-Wx	• Aviation Winter Weather Dashboard (AWWD) via CDM Weather Evaluation Team (WET)	• Collaborative Aviation Weather Statement (CAWS) Preliminary Requirements
	• 2-8hr Convective Forecast	• Alaska RAP Grid 83
	• METAR Remarks (RMK)	• 25K Ceiling Observations
	• Small Hail/Snow Pellets (GR/GS)	

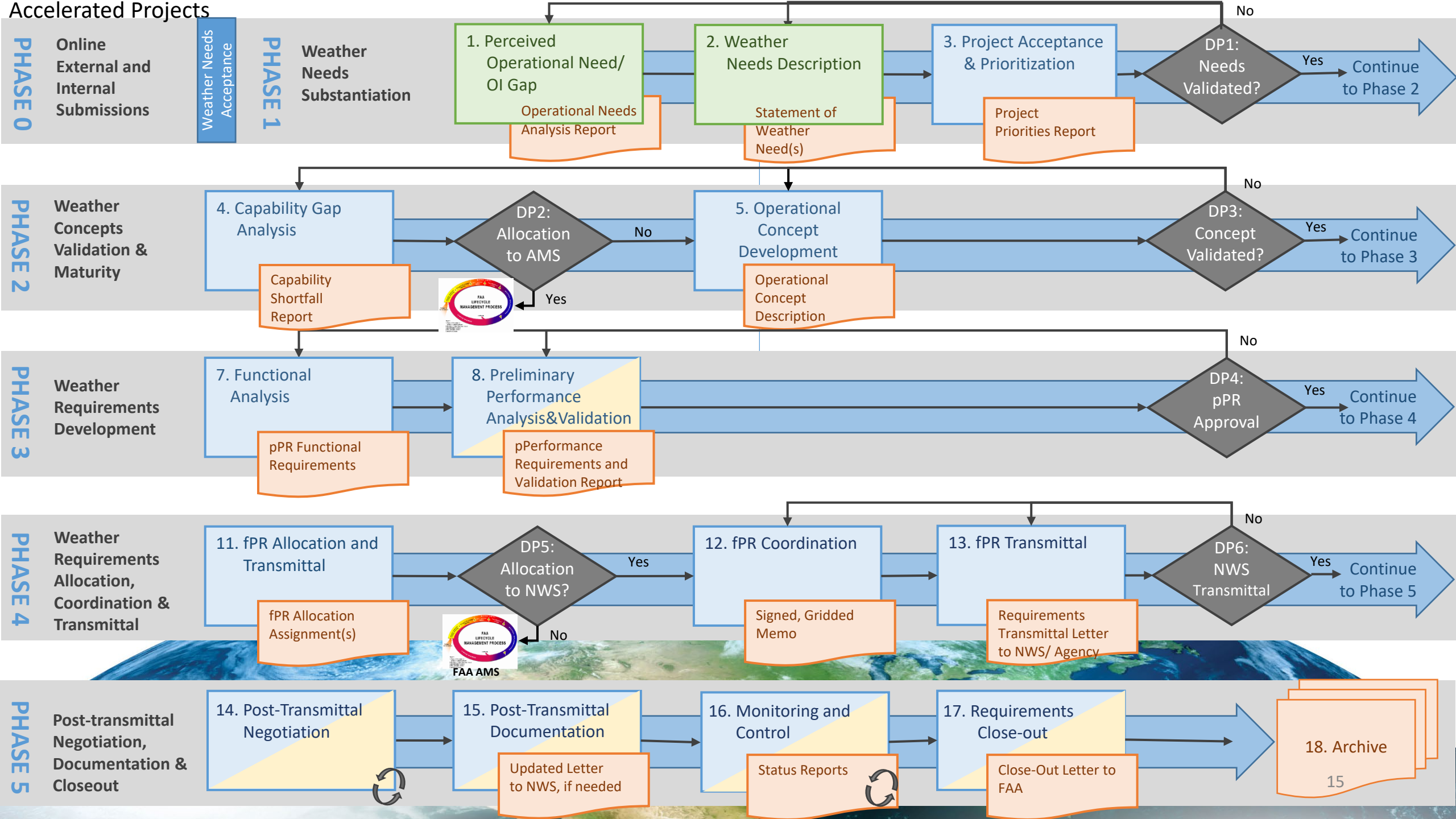
AWD Requirements Service Overview

The AWD Requirements Service is a repeatable process by which weather requirements are developed, validated, allocated, and transmitted to the NWS or FAA.

1. FAA Collaborative Sub-Process
2. NWS Collaborative Sub-Process



Questions?

Backup Material

Accelerated Projects