Office of Environment & Energy

Research & Development Overview & Updates

ASCENT 2025 Fall Meeting

October 15, 2025

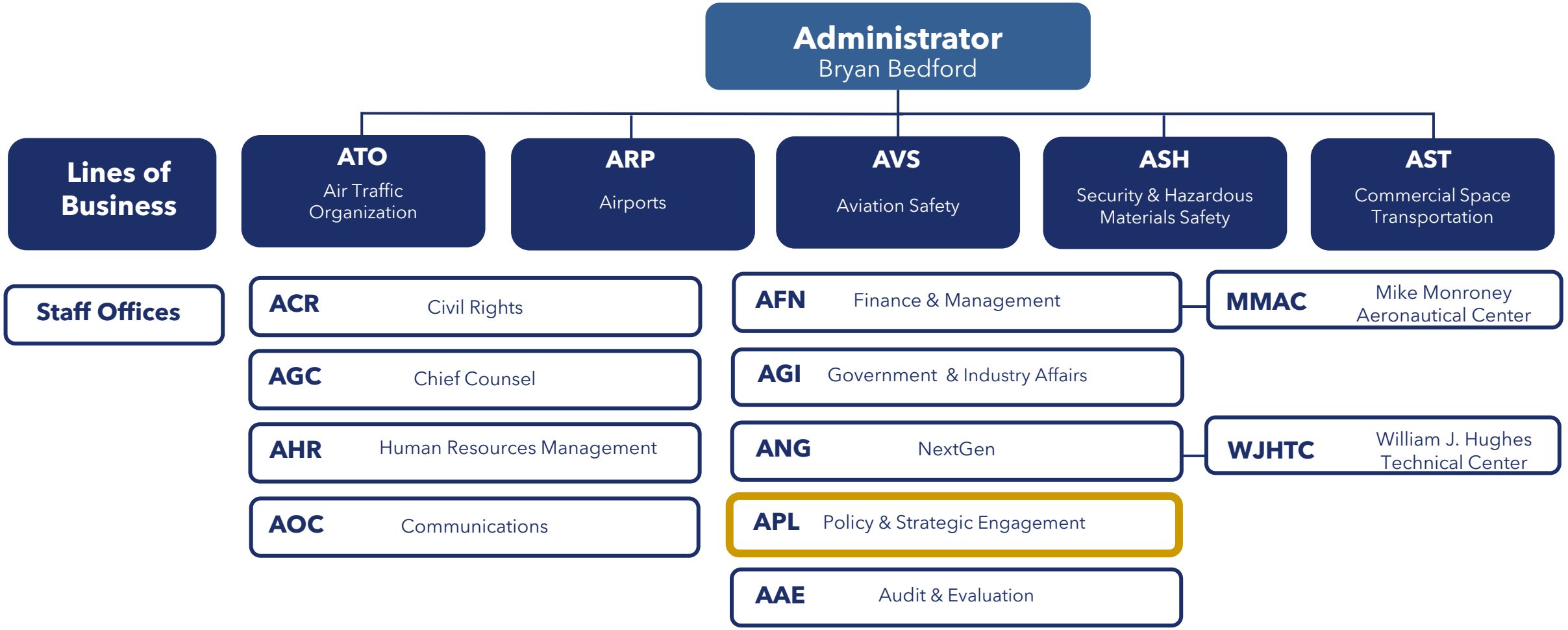
Dr. Anna Oldani
Chief Scientific & Technical Advisor for Environment & Energy
Federal Aviation Administration (FAA)

FAA Vision

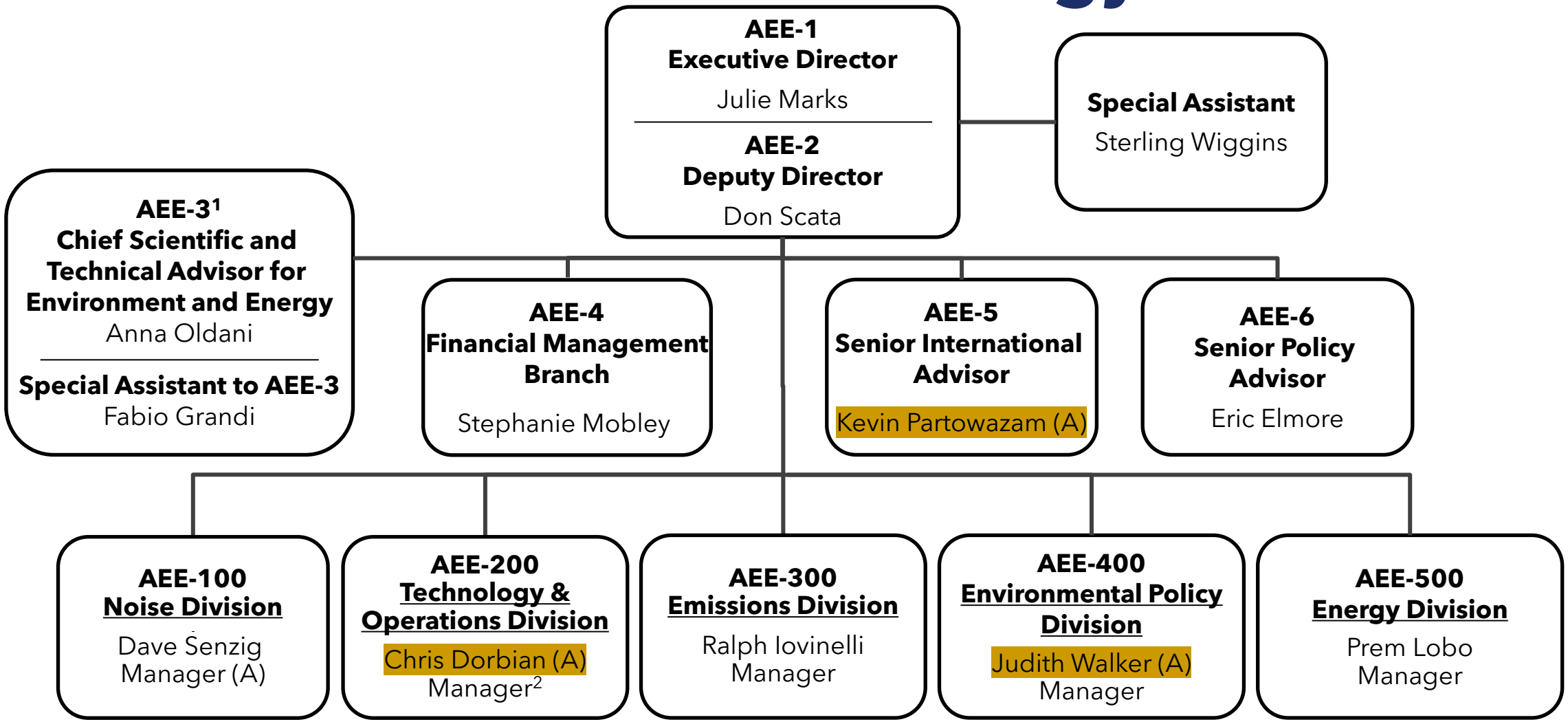
Strive to reach the next level of **safety** and **efficiency** and to demonstrate **global leadership** in how we safely **integrate new users and technologies** into our aviation system

Accountable to the American public and aviation stakeholders

FAA Organization



Office of Environment & Energy



(A) = Acting

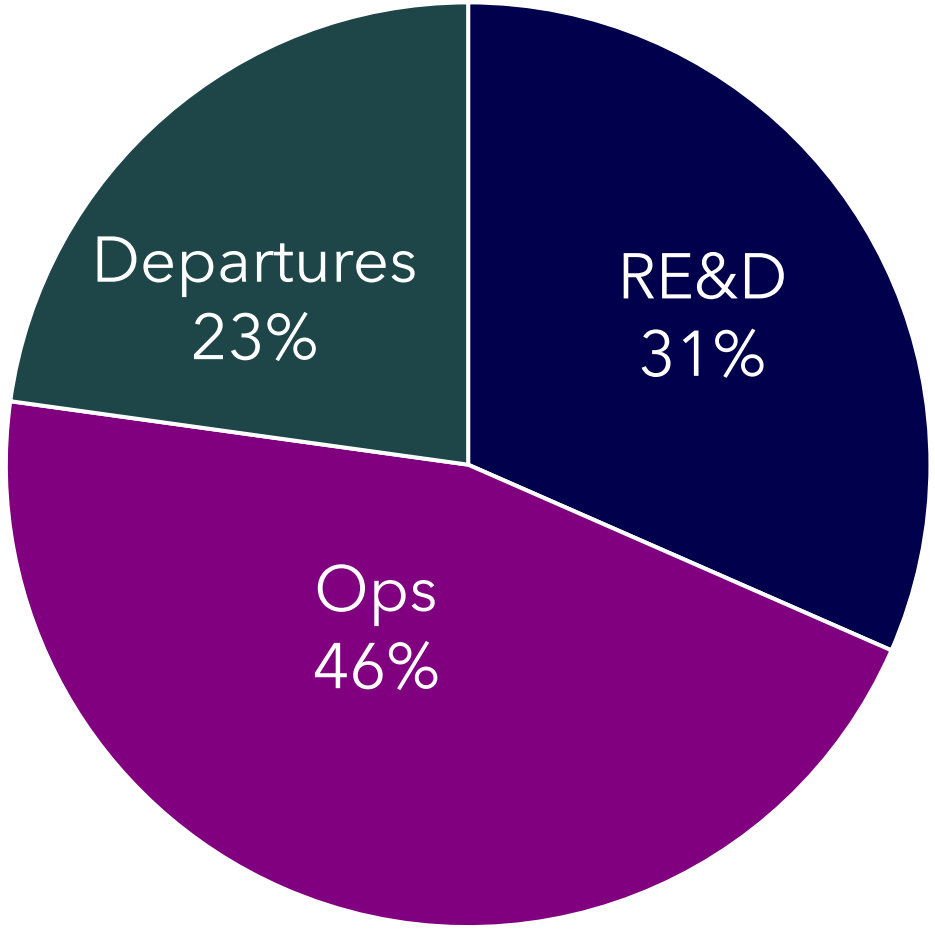
[1]ASCENT Program Manager, as a subset of CSTA duties

[2] CLEEN Program Manager, as a subset of AEE-200 Division Manager duties

AEE Updates

Staffing

- 44 staff members (roughly 40% RE&D)
- 13 departures



Since Q1 2025

RE&D Budget Line Items (BLI)

- Aviation Systems Performance Analysis (ASPA)
- Advanced Vehicle Technologies & Operations (AVTO)

AEE RE&D BLI Descriptions

AVTO **Advanced Vehicle Technologies & Operations**

Technology & Operations

- ***Testing & Analysis***
  - Innovative manufacturing and design concepts
- ***Modeling & Tools***
  - Emerging entrant operations
  - Conventional and advanced technologies

CLEEN, ASCENT

ASPA **Aviation Systems Performance Analysis**

Exhaust, Fuels, & Noise

- ***Testing & Analysis***
  - Ground and in-flight contrails research
  - Conventional and novel jet fuel testing
  - Noise measurements for emerging entrants
- ***Modeling & Tools***
  - Aviation system modeling tools (AEDT)

AEDT, ASCENT

Standards & Regulations

- ICAO CAEP technical support
- Data gathering to informs standards development, certification

ASTM, CAEP, SAE

Topics are given as examples of work under each BLI and are not exhaustive lists

AEE RE&D Budget & Legislation

- **FY10-FY21 enacted budgets**: $40M to $52M
- **FY22 enacted**: increased to $89.5M
- **FY23-24 enacted:** maintained at $89M

- **Inflation Reduction Act (August 2022)**
  - FAST Program - $297M - Section 40007
  - SAF Tax Credit - Sections 13203 (IRC 40B) and 13704 (IRC 45Z)

- **One Big Beautiful Bill Act (July 2025)**
  - Rescinded unobligated FAST Program funds - $234M - Section 40010
  - Update to Clean Fuel Production Credit - Section 70521 (IRC 45Z)

AEE RE&D BLI Information

	Item	FY24 ($000)	FY25 ($000)	Pres FY26 ($000)	Notes
BLI	E&E	$21,000	--	--	Environment and Energy
	NextGen	$68,000	--	--	Environmental Research - Aircraft Technologies & Fuels
	AVTO	--	$24,700	$11,750	Advanced Vehicle Technologies and Operations
	ASPA	--	$38,000	$18,365	Aviation Systems Performance Analysis
	Total	**$89,000**	**$62,700**	**$30,115**	
	FY24 Diff		**30%**	**66%**	Percent reduction from FY24

See details here:

https://www.transportation.gov/sites/dot.gov/files/2025-05/FAA_FY_2026_Budget_Estimates_CJ.pdf

FY25 & FY26 ASCENT Funding Packages

FY25 – Obligated

- Package 1 – 10 Grants ~$3.2M
- Package 2 – 5 Grants ~$5.3M
- Package 3 – 9 Grants ~$2.5M

FY26 – Under Review

- Package 1 – 2 Grants ~$1.2M
- Package 2 – 10 Grants ~$3.1M
- Package 3 – 6 Grants ~$4.5M

… additional packages to be developed

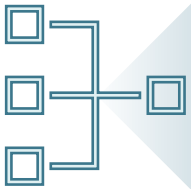
Reminders

- Ensure proposals **include all required documentation**
  - If students are included, need student budget verification
- Ensure budget justifications ***justify*** **costs**
- **Refer to questions on prior submissions** and ensure that information is corrected and updated

ASCENT Research Focus

Data gathering to inform standards development

Testing to support the safe introduction of new technologies



Modeling to enhance efficiency across the aviation system

for

- Current fleet of aircraft and helicopters
- UAS and AAM vehicles
- Commercial supersonic aircraft
- Commercial space vehicles

U.S. CAEP Leadership

Forecasting & Economic Analysis Support Group (FESG)

- Develop and maintain databases to provide the framework for performing economic analysis and forecasting fleet growth
- Support to other working groups and including cross-cutting issues

Modeling & Databases Group (MDG)

- Modelling in support of other CAEP groups and maintains databases such as movements, fleet, and population databases

Impacts and Sciences Group (ISG)

- Provide best possible consensus science to CAEP on aviation's impacts

Working Group 1 (Noise)

- International aircraft noise certification Standards (Annex 16, Volume I) ensuring that they are timely and effective

Working Group 2 (Airports)

- Aircraft noise and emissions issues linked to airports and operations

Working Group 3 (Emissions)

- Aircraft performance and emission technical matters (Annex 16 - Volume II) and development of new aircraft CO_2 Standard, (Annex 16 – Volume III)

U.S. CAEP Leadership

Long-term Aspirational Goal Monitoring and Reporting Task Group (LMR-TG)

- Track progress towards the LTAG for international civil aviation

Working Group 4 (CORSIA)

- Focuses on CORSIA, including maintenance of Annex 16, Vol. IV

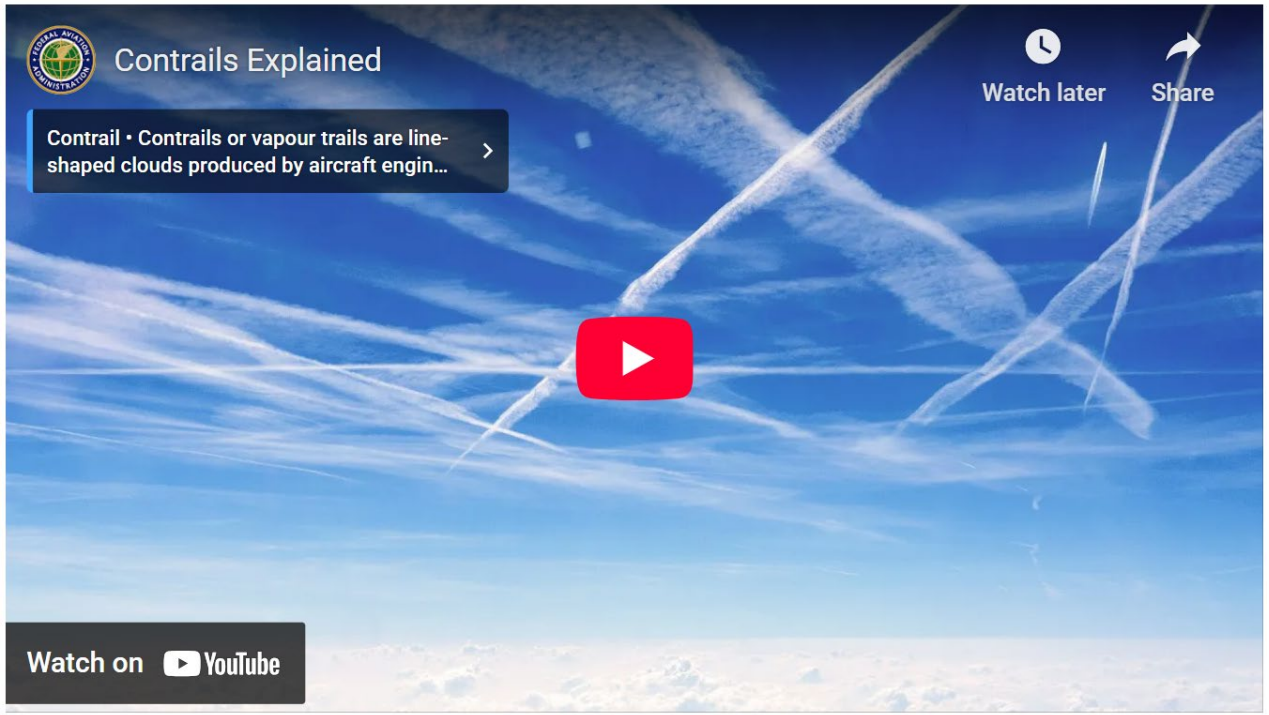
Working Group 5 (Aviation Fuels)

- Methodologies for CORSIA Eligible Fuels

Sustainability Certification Schemes Evaluation Group (SCSEG)

- Evaluates Sustainability Certification Schemes (SCS)

ASCENT Relevant Administration Priorities



Executive Order 14304

Leading the World in Supersonic Flight

Executive Order 14154

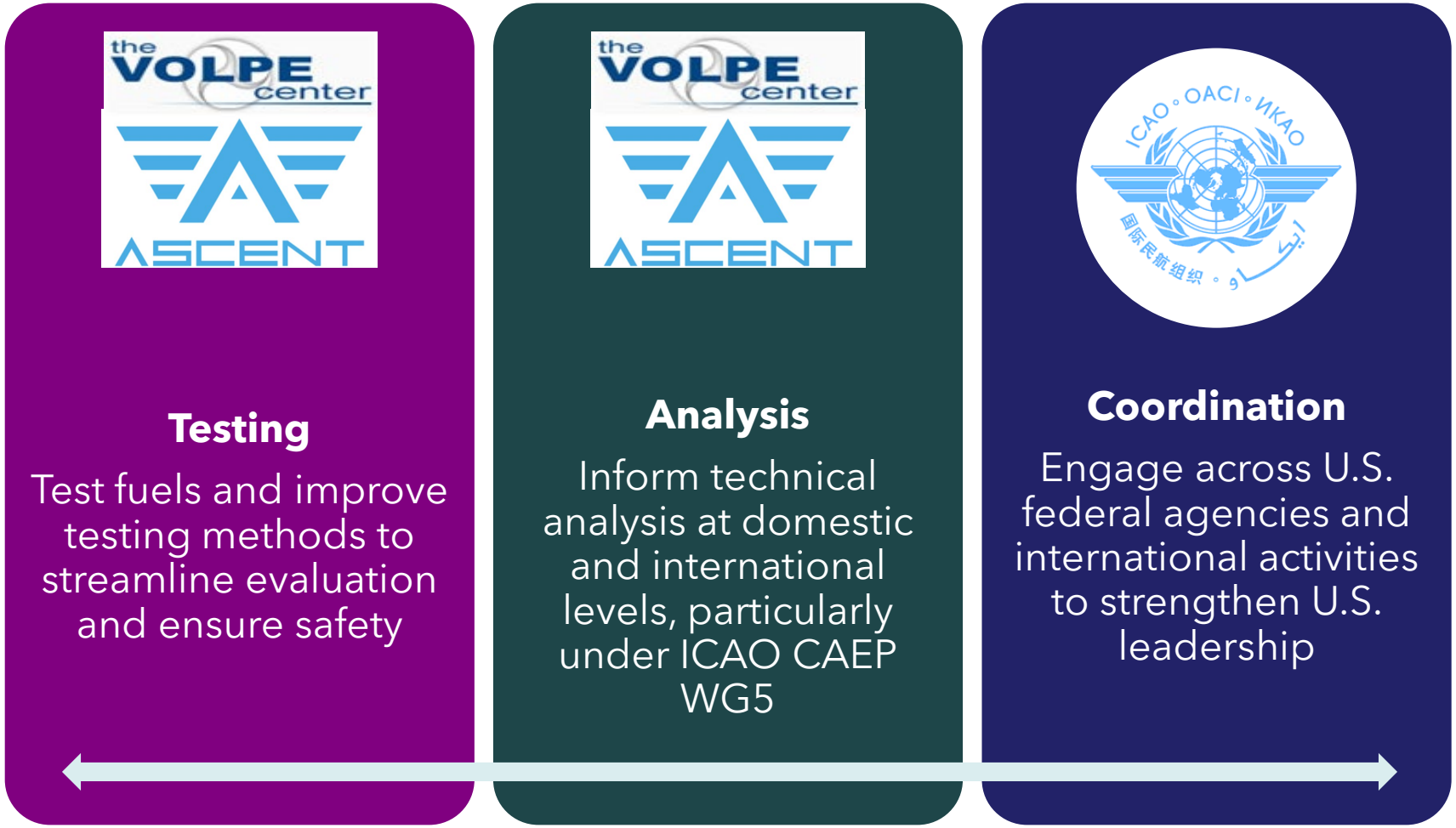
Unleashing American Energy

Executive Order 14162

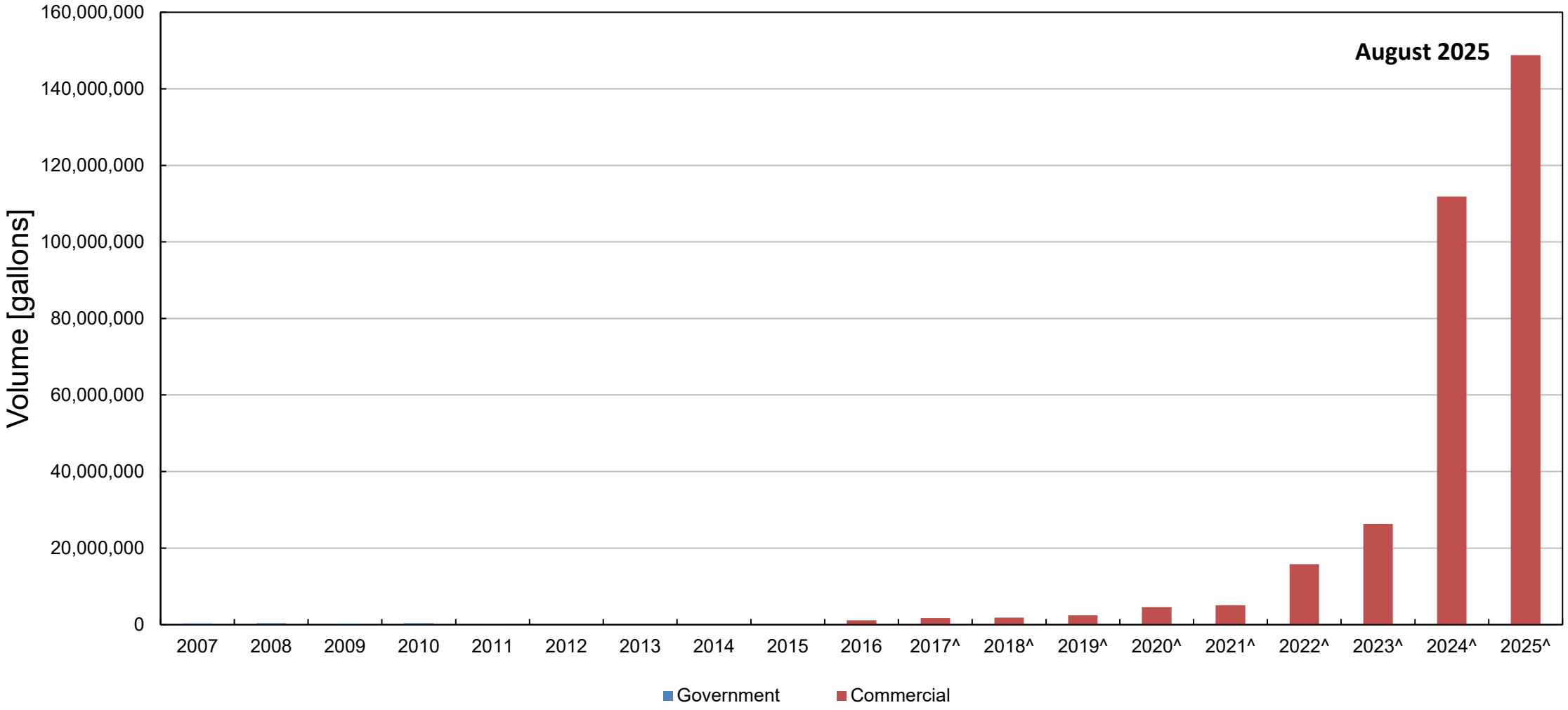
Putting America First in International Environmental Agreements

FAA contrails website: https://www.faa.gov/contrails
EPA contrails fact sheet:
https://www.epa.gov/system/files/documents/2025-07/epa-faa-contrails-factsheet-2025-0718.pdf

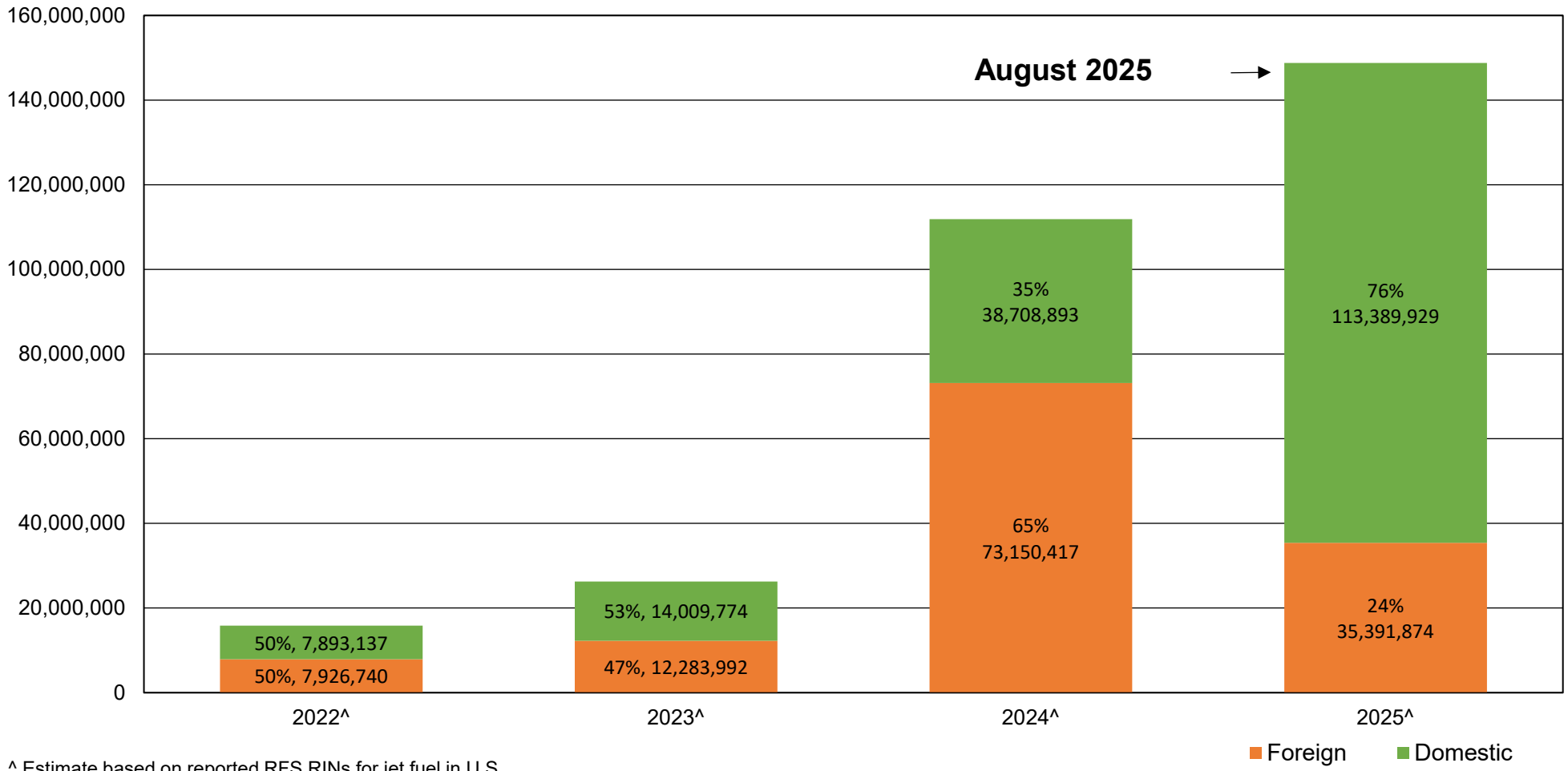
Fuel Safety and Standards



U.S. SAF Procurements



U.S. SAF Procurement - Production Origin



^ Estimate based on reported RFS RINs for jet fuel in U.S.

See you in the spring…

Topic Focused Spring Meetings

- Noise & Ops
- Aviation Fuels
- Technology
- Emissions

Full Program Fall Meeting – Fall 2026 – Alexandria VA


THANK YOU TO OUR ASCENT PARTNERS!

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