

REDAC NAS Operations Subcommittee

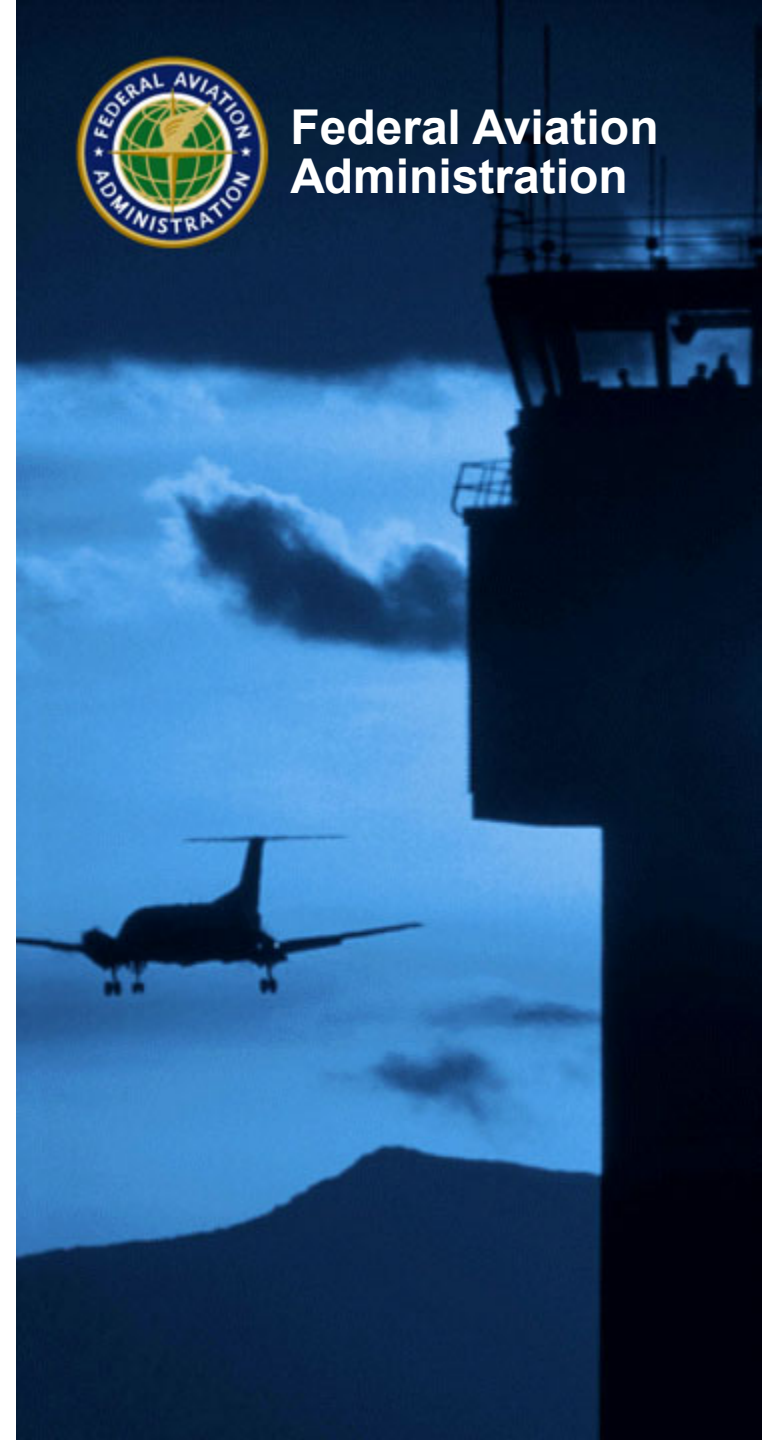
RE&D Budget Status

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March 24 - 25, 2020



Federal Aviation
Administration



R,E&D FY 2020 Budget

- **FY 20 R,E&D Request \$120M**
 - House Appropriation Committee (full committee)
R,E&D funded at \$191M
 - Senate Appropriation Committee (full committee)
R,E&D funded at \$194.2M
 - Funding Bill Enacted December 20, 2019
R,E&D funded at \$192.7M



FAA FY 2020 Budget

Appropriation	FY-20 Request	House Mark	Difference	Senate Mark	Difference	Conference
Operations	\$ 10,340,000,000	\$ 10,677,758,000	\$ 337,758,000	\$ 10,540,511,000	\$ 200,511,000	\$ 10,630,000,000
Facilities & Equipment	\$ 3,295,000,000	\$ 3,002,000,000	\$ (293,000,000)	\$ 3,153,801,000	\$ (141,199,000)	\$ 3,045,000,000
Research Engineering & Development	\$ 120,000,000	\$ 191,100,000	\$ 71,100,000	\$ 194,230,000	\$ 74,230,000	\$ 192,665,000
Grants-in-aid for Airports	\$ 3,350,000,000	\$ 3,850,000,000	\$ 500,000,000	\$ 3,800,000,000	\$ 450,000,000	\$ 3,750,000,000
Total	\$ 17,105,000,000	\$ 17,720,858,000	\$ 615,858,000	\$ 17,688,542,000	\$ 583,542,000	\$ 17,617,665,000



FY 2020 R,E&D Enacted

Program	FY2018 Enacted (\$000)	FY 2019 Enacted (\$000)	FY 2020 Request (\$000)	FY 20 House Mark (\$000)	FY 20 Request/FY20 House +/-	FY 2020 Senate Mark (\$000)	FY 20 Request/FY20 Senate +/-	2020 Conference Mark (\$000)
Fire Research and Safety	7,200	7,200	7,562	7,562	-	7,200	(362)	7,200
Propulsion and Fuel Systems	2,100	2,100	3,708	3,708	-	2,100	(1,608)	2,100
Advanced Materials/Structural Safety	10,500	14,720	1,799	15,000	13,201	14,720	12,921	14,720
Aircraft Icing /Digital System Safety	9,253	9,253	7,450	9,300	1,850	9,000	1,550	9,000
Continued Airworthiness	11,269	11,269	10,006	11,300	1,294	11,269	1,263	10,269
Aircraft Catastrophic Failure Prevention Research	1,570	1,570	-	1,565	1,565	1,565	1,565	1,565
Flightdeck/Maintenance/System Integration								
Human Factors	7,205	7,305	5,973	7,300	1,327	7,300	1,327	7,300
System Safety Management	5,600	5,500	4,309	5,500	1,191	5,500	1,191	4,500
Air Traffic Control/Technical Operations Human Factors	5,800	5,800	5,474	5,474	-	5,800	326	5,800
Aeromedical Research	9,080	9,080	9,575	9,575	-	7,919	(1,656)	7,919
Weather Program	15,476	15,476	6,391	6,391	-	15,476	9,085	12,911
Unmanned Aircraft Systems Research	24,035	24,035	7,546	25,000	17,454	24,035	16,489	24,035
Undistributed				4,888				
Alternative Fuels for General Aviation	7,000	1,900	-	1,900	1,900	1,900	1,900	1,900
NextGen - Wake Turbulence	6,831	6,831	3,697	3,697	-	6,000	2,303	5,000
NextGen - Air Ground Integration Human Factors	6,757	6,757	1,717	5,800	4,083	5,800	4,083	5,300
NextGen - Weather Technology in the Cockpit	3,644	3,644	1,963	1,963	-	3,644	1,681	3,144
NextGen - Information Security	1,000	1,232	2,675	2,675	-	2,675	-	2,675
NextGen - Flight Deck Data Exchange		1,035	1,005	1,005	-	1,005	-	1,005
Commercial Space	1,872	2,500	5,971	5,971	-	2,500	(3,471)	2,500
Environment and Energy	18,013	18,013	15,103	18,500	3,397	18,013	2,910	18,013
NextGen - Environmental Research - Aircraft Technologies, Fuels, and Metrics	29,174	29,174	12,500	29,600	17,100	29,174	16,674	29,174
Airliner Cabin Environment Research						1,000		1,000
System Planning and Resource Management	2,135	2,135	2,717	2,426	(291)	7,135	4,418	12,135
William J. Hughes Technical Center Laboratory Facility	3,412	4,571	2,859	5,000	2,141	3,500	641	3,500
TOTAL	188,926	191,100	120,000	191,100	66,212	194,230	73,230	192,665



FY 2020 Conference Language

- **Advanced Materials/Structural Safety** – This includes \$6M to advance the use of these new additive materials (both metallic and non-metallic based additive processes) into the commercial aviation industry, as well as \$4M to advance the use of fiber reinforced composite materials into the commercial aviation industry through the FAA Joint Advanced Materials and Structures Center of Excellence.
- **Continued Airworthiness** – The agreement includes \$10,269,000 for continued airworthiness, of which \$2,000,000 is for the FAA To work with the public and private partners who provide leading-edge research, development, and testing of composite materials and structures.
- **Unmanned Aircraft System Research** – This include \$12M to support the expanded role of the UAS Center of Excellence, \$2M is to expand the Center's role in transportation disaster preparedness and response, and \$10M is to support UAS research activities at the FAA Technical Center and other FAA facilities. The agreement includes direction included in the house Report 115-237 and the Senate Report 115-138 and directs the FAA to report its progress on this direction to the House and Senate Committees on Appropriations no later than 120 days after enactment of this Act.



FY 2020 Conference Language

- **Environmental sustainability** – The FAA is provided a total of \$47,187,000 for research related to environmental sustainability that supports the CLEEN program, as well as the center of excellence for alternative jet fuels and environment. Within the total provided, the FAA is directed to use \$15,000,000 for the center of excellence.
- **Aviation workforce development programs** – Of the amount provided for system planning and resource management, the agreement includes \$10,000,000 for the aviation workforce development programs for aircraft pilot workforce and for aviation maintenance workforce, as authorized by section 625 of the FAA Reauthorization ACT of 2018.
- **Human Intervention Motivation Study (HIMS)** – The FAA is directed to report on its progress in implementing the direction in the Senate report on the HIMS no later than March 2, 2020.
- **Automation** – The FAA should investigate ways in which training and mitigations can be developed to address the safety risk associated with pilot automation dependency.



FY 2021 Budget

- **Budget submitted to Congress the Week of February 10**
- **Budget Deal will need to be agreed to**
 - Without budget deal will have to go to sequester levels



R,E&D FY 2022 Budget

- **FY 2022 target \$170M**
- **Deliver to OST June 2020**
- **FY 2022 remaining schedule**
 - Submit to OMB mid September
 - Submit President's request to Congress Feb. 2021



Out Year Targets

- **Targets established Feb. 2020**
 - FY 22 - \$170M
 - FY 23 - \$170M
 - FY 24 - \$170M
 - FY 25 - \$170M
 - FY 26 - \$170M
- **Expect targets to change**



FAA Reauthorization

- **Current Authorization signed by President Oct 5, 2018 which extends authorization thru 2023**



Budget Future - TBD

