REDAC Human Factors Subcommittee

RE&D Budget Status

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FAA FY 2020 Budget

Funding Bill Enacted, December 20, 2019

Appropriation	FY-20 Request	House Mark	Difference	Senate Mark	Difference	Conference	Difference
Operations	$ 10,340,000,000	$ 10,677,758,000	$ 337,758,000	$ 10,540,511,000	$ 200,511,000	$ 10,630,000,000	$ 290,000,000
Facilities & Equipment	$ 3,295,000,000	$ 3,002,000,000	$ (293,000,000)	$ 3,153,801,000	$ (141,199,000)	$ 3,045,000,000	$ (250,000,000)
Research Engineering & Development	$ 120,000,000	$ 191,000,000	$ 71,000,000	$ 194,230,000	$ 74,230,000	$ 192,665,000	$ 72,665,000
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	$ 400,000,000
Total	$ 17,105,000,000	$ 17,720,758,000	$ 615,758,000	$ 17,688,542,000	$ 583,542,000	$ 17,617,665,000	$ 512,665,000

R,E&D FY 2021 Budget

- **FY 2021 FAA total funding level is $18,139 million per House Bill**
  - Overall increase of $618 million above FY 2021 request (which includes the $10 billion for the CARES Act)
  - Without the CARES Act, the FY 2021 House level is an increase of $522 million above FY 2020.
  - All funding for Operations, F&E, and R,E&D is provided from the General Fund of the Treasury, not the Airport and Airway Trust Fund.

R,E&D FY 2021 Budget

- **FY 21 R,E&D Request $170M**
  - House funded R,E&D at $192.7M (increase of $22.7 million above the request and equal to the FY 2020 enacted level).
  - Senate Appropriation Committee R,E&D funded at TBD
- **Does this mean appropriation bills are passed?**
  - No
- **Can we still have a shutdown**
  - Yes (but probably not)

FAA FY 2021 Budget

Appropriation	FY 2019 Enacted	FY 2020 Enacted	FY 21 Request	FY 21 House Mark	Difference	FY 21 Senate Mark	Difference
Operations	$ 10,410,758,000	$ 10,630,000,000	$ 11,001,500,000	$ 11,051,500,000	$ 50,000,000	$ -	$ (11,001,500,000)
Facilities & Equipment	$ 3,000,000,000	$ 3,045,000,000	$ 3,000,000,000	$ 3,045,000,000	$ 45,000,000	$ -	$ (3,000,000,000)
Research Engineering & Development	$ 191,100,000	$ 192,665,000	$ 170,000,000	$ 192,665,000	$ 22,665,000	$ -	$ (170,000,000)
Grants-in-aid for Airports	$ 3,850,000,000	$ 13,750,000,000	$ 3,350,000,000	$ 3,850,000,000	$ 500,000,000	$ -	$ (3,350,000,000)
Total	$ 17,451,858,000	$ 27,617,665,000	$ 17,521,500,000	$ 18,139,165,000	$ 617,665,000	$ -	$ (17,521,500,000)

FY 2021 R,E&D Request

Program	FY 2019 Enacted ($000)	FY 2020 Enacted ($000)	FY 2021 Request ($000)	FY 2021 House Mark ($000)	FY 2021 Request/FY 2021 House +/-	FY 2021 Senate Mark ($000)	FY 2021 Request/FY 2021 Senate +/-
Fire Research and Safety	7,200	7,200	7,136	7,136	0	0	-7,136
Propulsion and Fuel Systems	2,100	2,100	4,215	4,215	0	0	-4,215
Advanced Materials/Structural Safety	14,720	14,720	1,003	1,191	188	0	-1,003
Aircraft Icing/Digital System Safety/Aircraft Cyber	9,253	9,000	6,426	7,500	1,074	0	-6,426
Continued Air Worthiness	11,269	10,269	9,642	11,269	1,627	0	-9,642
Aircraft Catastrophic Failure Prevention Research	1,570	1,565	0	3,000	3,000	0	0
Flightdeck/Maintenance/System Integration Human Factors	7,305	7,300	7,469	7,469	0	0	-7,469
Safety System Management/Terminal Area Safety	5,500	4,500	5,485	5,485	0	0	-5,485
Air Traffic Control/Technical Operations Human Factors	5,800	5,800	5,685	5,685	0	0	-5,685
Aeromedical Research	9,080	7,919	10,235	11,500	1,265	0	-10,235
Weather Research	15,476	12,911	6,236	7,750	1,514	0	-6,236
Unmanned Aircraft Systems Research	24,035	24,035	24,035	24,035	0	0	-24,035
Alternative Fuels for General Aviation	1,900	1,900	2,524	2,524	0	0	-2,524
Commercial Space	2,500	2,500	5,840	5,840	0	0	-5,840
NextGen - Wake Turbulence	6,831	5,000	3,698	3,698	0	0	-3,698
NextGen - Air Ground Integration	6,757	5,300	6,757	6,000	-757	0	-6,757
NextGen - Weather Technology in the Cockpit	3,644	3,144	1,982	1,982	0	0	-1,982
Information Security	1,232	2,675	4,769	4,769	0	0	-4,769
NextGen Flight Data Exchange	1,035	1,005	1,000	1,000	0	0	-1,000
Environment and Energy	18,013	18,013	17,911	21,000	3,089	0	-17,911
NextGen Environmental Research - Aircraft Technologies and Fuels	29,174	29,174	27,009	35,174	8,165	0	-27,009
Airliner Cabin Environment Research	0	1,000	0	0	0	0	0
System Planning and Resource Management	2,135	12,135	8,022	11,522	3,500	0	-8,022
William J. Hughes Technical Center Laboratory Facilities	4,571	3,500	2,921	2,921	0	0	-2,921
Total Research Engineering & Development	**191,100**	**192,665**	**170,000**	**192,665**	**22,665**	**0**	**-170,000**

FY 2021 House Language

- **Aviation Professionals –** The Committee provides $5,000,000 for the aviation maintenance technician development program and $5,000,000 for aviation work force development program in accordance with section 625 of the FAA Reauthorization Act (P.L. 115-254). Additionally, the Committee directs the FAA To include the section 625 grant program as part of the workforce diversity briefing required under the "Operations" heading.
- **Crew Complements –** The presence of two well-trained, qualified pilots in commercial aircraft is another example of safety through redundancy, Funding made available in this Act to study alternative crew complements for flight decks in commercial operations should prioritize the safety effects relative to two-person flights. This direction is not intended to limit FAA's research and development activities related to unmanned aerial vehicles.
- **Counter-Unmanned Aircraft Systems (UAS) –** The Committee concurs with the need for a plan, as required by section 383 of the FAA Reauthorization Act (P.L. 115-254), for certifying permitting, authorizing, or allowing the deployment of technologies or systems to detect and mitigate the potential risks posed by errant or hostile unmanned aircraft systems. The committee provides $14,000,000 for the

FY 2021 House Language

- **UAS continued -** Center of Excellence (COE) for UAS Research and believes it is very well-suited and capable of supporting the FAA's section 383 work. When the FAA begins conducting the airspace hazard mitigation program, the Committee reminds the FAA that robust results are derived from heterogenous airport environments and operations.
- **Environment and Energy –** The recommendation provides $21,000,000 for Environment and Energy, of which $3,000,000 is additional funding for the FAA to analyze noise at a national level using existing public health surveillance datasets and to conduct field studies in the U.S.
- **NextGen-Environmental Research – Aircraft Technologies and Fuels –** The recommendation provides $35,174,000 for NextGen-Environmental Research-Aircraft Technologies and Fuels to reduce aviation noise and exhaust emissions, of which $3,000,000 is additional funding to support the Continuous Lower Energy, Emissions and Noise (CLEEN) program to reduce noise at its source-the aircraft engine.

FY 2021 Senate Language

- **TBD**

FY 2022 Budget

- **Delivered to OST June 26, 2020**
- **FY 2022 remaining schedule**
  - Submit to OMB mid September
  - Submit Presidents request to Congress Feb. 3, 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.**