NOAA Aviation Safety Policy
and
NOAA Aviation Safety Program

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NOAA Marine and Aviation Operations

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Outline

- Purpose
- Issue
- Background & Discussion
- Alternatives
- Coordination and Views
- Output
- Recommendation

Purpose

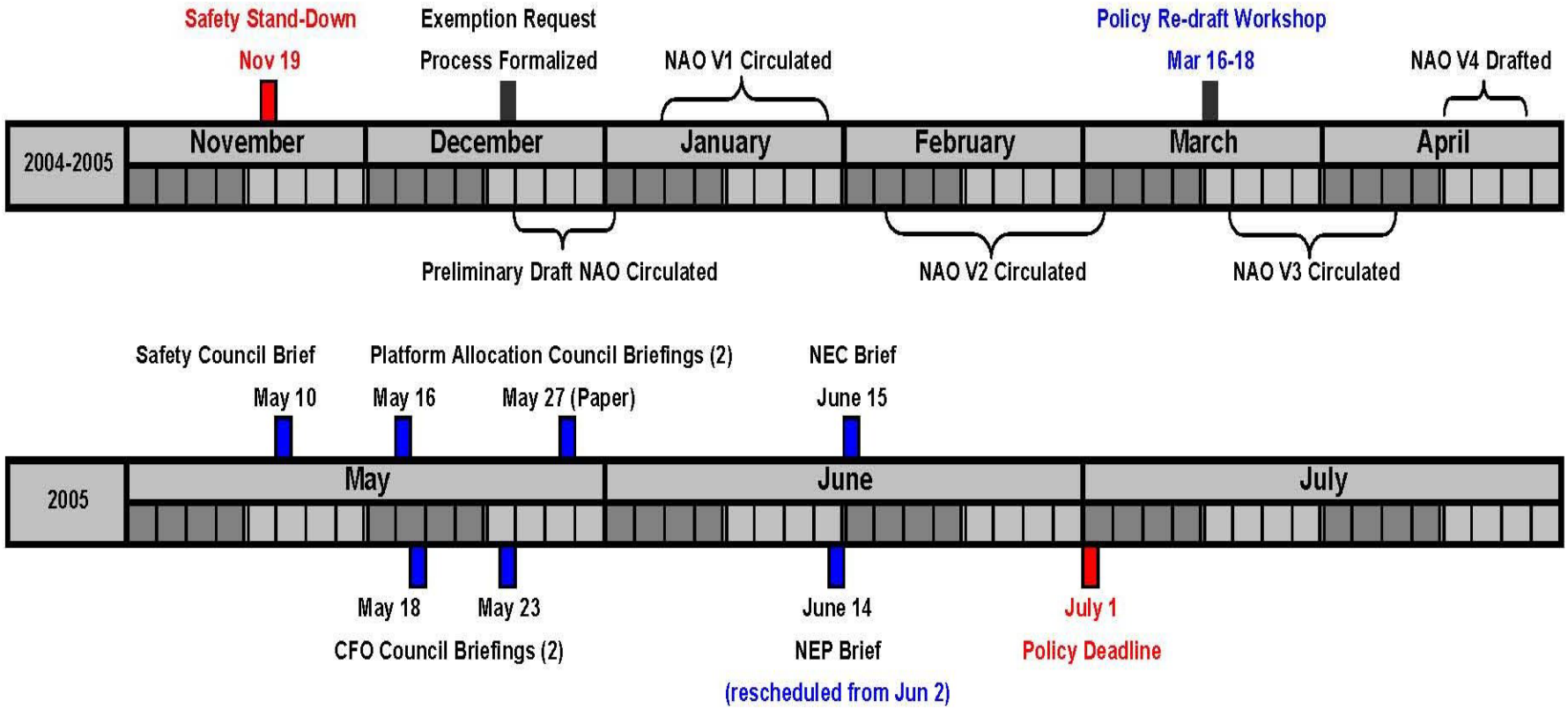
- **Decision Briefing**
  - NOAA's Aviation Safety Policy
  - NOAA's Aviation Safety Program
- **Desired Decision(s)**
  - NOAA Executive Panel Endorsement of:
    - Aviation Safety Policy (NOAA Administrative Order)
    - Aviation Safety Program
    - Funding Profile
- **Applicable Tasking**
  - NMAO will implement the Aviation Safety Program in accordance with the Aviation Safety NAO

Issue

- **NOAA's Aviation Safety Policy and Aviation Safety Program**
  - Developed by NMAO in response to:
    - **41 CFR 102-33 Management of Government Aircraft** (published in Federal Register November 6, 2002) requires Federal Agencies to establish Flight Program Standards for all aircraft operations
    - **FY06-FY10 Program Decision Memorandum** "Establish an Aviation Outsourcing Safety Program to include centralized aviation safety training, safety equipment maintenance and distribution and commercial aviation vendor evaluation. Develop NAO for new program. Fund from within existing resources"
    - **Safety Stand-Down Regarding Use of non-NOAA Aircraft** (issued November 19, 2004) "This stand-down shall remain in effect until a safety program for use of non-NOAA aircraft is approved by the NOAA Executive Council"

Background

- **Program and Policy Development Milestones**



NOAA
Aviation Safety Policy

- **Safety is a core value and priority of the National Oceanic and Atmospheric Administration (NOAA)**
  - NOAA has a responsibility to provide a safe working environment for it's workforce and partners who are exposed to the risks associated with flying on behalf of the Agency. NOAA's aviation safety policy reduces the risk associated with aircraft operations by making safety the number one priority for all aviation operations. NOAA has established an Aviation Safety Board and Aviation Safety Program charged with the oversight of all safety-related aspects of flight.

NOAA
Aviation Safety Policy

- **Draft NAO (version 4)**
  - Applies to aircraft owned or operated by NOAA
    - Aircraft operated by NOAA include:
      - rented, chartered, leased or owned by NOAA or NOAA personnel and used for official business; and
      - aircraft operated by public or private entities on behalf of NOAA through written support agreements
  - Does not apply to:
    - Use of scheduled air carrier for transportation
    - Use of aircraft for acquisition of products or data where no NOAA personnel fly on the aircraft
    - Use of aircraft for movement of cargo

NOAA
Aviation Safety Policy

- **Draft NAO (version 4)**
  - Reduces risk associated with aircraft operations by:
    - Ensuring contracted aircraft (listed on NOAA Aircraft Operator Database) meet NOAA airworthiness and operational safety standards
    - Requiring medical screening of personnel
      - To identify individuals that could be placed in a work environment (flight) with the potential to aggravate existing medical conditions
    - Providing personnel with appropriate Aviation Safety Training and Aviation Life Support Equipment (ALSE)

NOAA
Aviation Safety Policy

- **Draft NAO (version 4)**
  - Establishes a corporate NOAA:
    - Aviation Safety Board
    - Aviation Safety Program
  - Ensures NOAA aviation safety standards are incorporated in procurement documents and written agreements for aviation services
  - Requires all NOAA pilots to meet the same certification, currency, and training standards to fly missions on behalf of NOAA

NOAA
Aviation Safety Policy

- **Policy Impact**
  - **All <u>NOAA personnel</u>** (employees and contract employees) must have the following in order to fly on **<u>any aircraft</u>** in the performance of their job: (excluding travel on scheduled air carriers or Privately Owned Aircraft)
    - NOAA Aeromedical Clearance Notice
    - Aviation Safety Training listed in Appendix B
    - Aviation Life Support Equipment listed in Appendix B
  - **All personnel** must have the following in order to fly on **<u>any aircraft owned or operated by NOAA</u>**:
    - NOAA Aeromedical Clearance Notice
    - Aviation Safety Training listed in Appendix B
    - Aviation Life Support Equipment listed in Appendix B

NOAA
Aviation Safety Policy

- **Policy Impact**
  - NOAA personnel are authorized to fly when:
    - **Aircraft is:**
      - NOAA aircraft; or
      - Non-NOAA aircraft
        - » Owned by air service provider on NOAA Aircraft Operator Database (NAOD);
        - » Operated by United States, Canadian, Australian, or New Zealand governments;
        - » Used on a “Flight of Opportunity”; or
        - » Privately owned aircraft (POA) and flown by NOAA employee for transportation only; and
    - **Individual:**
      - Possesses a NOAA Aeromedical Clearance Notice
      - Completed aviation safety training in Appendix B
      - Provided ALSE in Appendix B

NOAA
Aviation Safety Board

- **Voting Members**
  - Aviation Safety Program Manager (Chair)
  - One Rep from each Line Office and NOAA Safety
- **Non-voting Observers**
  - NOAA General Counsel, PPI, Acquisitions and Grants, and Human Resources
- **Reports to the NOAA Safety Council**

NOAA
Aviation Safety Board

- **Solicits the aviation safety needs of Line Offices**
- **Reviews:**
  - Findings from NOAA's aviation accidents and serious incidents
  - Results of NOAA aviation safety audits
- **Approves:**
  - Aviation safety training and ALSE requirements
  - Aviation safety standards for NOAA contractual agreements
  - Aviation risk assessment tools and mishap response plans

NOAA
Aviation Safety Program

- **Program Highlights**
  - Full-time aviation safety staff
  - Provides aviation safety tools and training
  - Maintains agreements with aviation safety training providers (commercial and government) for NOAA
  - Centrally acquires, maintains and distributes ALSE
  - Maintains NOAA Aircraft Operator Database (NAOD)
  - Evaluates aircraft operators (listed on NAOD)
  - Maintains NOAA Aviation Medical Screening Database
  - Assists NOAA contracting officials with safety aspects of aviation services procurement
  - Hosts annual aviation safety conference

Aviation
Safety Survey Results

- **Personnel who fly for NOAA**
  (as of April 30, 2005)

NOAA Personnel and Joint Research Partners/Visiting Scientists who may fly on official duty On other than Scheduled Air Carrier Aircraft				
Line Office	**NOAA Employee**	**NOAA Contractor**	**Other**	**Total**
NESDIS	2	2	2	**6**
NMFS	258	110	3	**371**
NOS	78	20	0	**98**
NWS	2,919	0	0	**2,919**
OAR	71	11	49	**131**
Total	**3,328**	**143**	**54**	**3,525**

Draft NAO (version 4)

- **Aviation Safety Training Required**
  (NMAO Recommendations)

Aviation Safety Training							
Training Method		NOAA E-Learning		Egress Video	Classroom and Hands-on	Classroom and Hands-on	Classroom and Hands-on
Training Frequency		annual	annual	once every 5 years		one time	one time
Flight Purpose and Environmental Conditions	**Personnel**	**NOAA Aviation Policy and Procedures**	**Basic Aviation Safety and Survival**	**Water Ditching and Survival**		**High Altitude Physiology (Altitude Chamber)**	**Aviation Crash and Cold Weather Survival**
Transportation and Mission Operations over land	**NOAA**	√	√				
	Non-NOAA						
Transportation over water	**NOAA**	√	√	√			
	Non-NOAA						
Mission Operations Overwater	**NOAA**	√	√		√		
	Non-NOAA		√		√		
Mission Operations in Cold Weather (<32F)	**NOAA**	√	√				√
	Non-NOAA		√				√
Mission Operations above 10,000 feet	**NOAA**	√	√			√	
	Non-NOAA		√			√	

Note: NOAA Personnel may request more frequent training than what is listed above

Aviation Safety Survey Results

- **Training Gap**

(April 2005 Survey Data)

Aviation Safety Training Provided by Line Office or AOC					
Line Office	Training received within previous 5 years				
	Number of Personnel Identified in Survey	Basic Aviation Safety	Water Survival Training	Cold Weather Survival Training	Altitude Chamber Training
NESDIS	6	0	0	0	0
NMFS	371	44	37	0	NA
NOS	98	57	55	0	2
NWS	2919	22	0	22	NA
OAR	131	53	0	0	0
Total	**3525**	**176**	**92**	**22**	**2**

Additional Training Required

Training Required by Line Office				
Total Number of Personnel				
Line Office	Basic Aviation Safety (NOAA E-Learning)	Water Survival Training	Cold Weather Survival Training	Altitude Chamber Training
NESDIS	6	6	6	6
NMFS	371	276	24	0
NOS	98	30	66	3
NWS	2919	40	56	0
OAR	131	92	73	99
	3525	**444**	**225**	**108**

Draft NAO (version 4)

- **Aviation Life Support Equipment (ALSE) Required**
  (NMAO Recommendations)

Aviation Life Support Equipment (ALSE) required to be carried in the aircraft or worn by personnel				
Flight Purpose and Environmental Conditions	**Life Raft of sufficient capacity for all aircraft occupants**	**Personal Floatation Device (PFD) (Life Vest)**	**Emergency Locator Transmitter** (406MHz)	**Anti-Exposure Suit**
Transportation over water	√	√	√	
Mission Operations Overwater	√	√	√	
Mission Operations in Cold Weather (<32F air temp or <59F water temp)				√

Aviation Safety Survey Results

- **Aviation Life Support Equipment Gap** **(April 2005 Survey Data)**

Line Offices Reported some ALSE purchased by Staff Offices and available at the Unit level (not standardized across NOAA)

Additional ALSE Required

ALSE Required by Line Office					
Total Number of Units					
Line Office	Switlick Vest	PLB	Near-Shore Raft	Offshore Raft	Anti-Exposure Suit
NESDIS	0	0	0	0	0
NMFS	100	19	5	4	73
NOS	12	3	1	0	9
NWS	11	3	0	0	11
OAR	27	7	0	2	10
	150	**32**	**6**	**6**	**103**

Funding Required

Aviation Safety Program Funding Required $K (FY05 dollars)				
	FY05	**FY06**	**FY07**	**FY08-FY12**
Program Management	$140	$516	$469	$469
Line Office Training & ALSE	$0	$509	$240	$96
Total	**$140**	**$1,025**	**$710**	**$566**

Funding Alternative #1

- **Entire Program funded by Fleet Services**
  - FY06-FY10 PDM: "Establish an Aviation Outsourcing Safety Program to include centralized aviation safety training, safety equipment maintenance and distribution and commercial aviation vendor evaluation. Develop NAO for new program. Fund from within existing resources." **(Option A, B, C or combination)**

A

Snow Survey – NWS
Remote Sensing R&D – NOS
Hurricane Research - OAR

ONE POSSIBLE SCENARIO — Impact to Aircraft Services Funded Hours — ONE POSSIBLE SCENARIO						
Projects (Hours Allocated)	FY06 ($1,025)		FY07 ($710)		FY08-FY12 ($566)	
	- Hours	Dollars ($K)	- Hours	Dollars ($K)	- Hours	Dollars ($K)
Snow Survey (650)	-650	$149	-650	$149	-650	$149
Remote Sensing R&D (275)	-275	$168	-275	$168	-275	$168
Hurricane Research (P-3) (155)	-155	$439	-100	$300	-83	$249
Hurricane Research (G-IV) (120)	-120	$260	-46	$92		
Totals	**-1200**	**$1,016**	**-1071**	**$709**	**-1008**	**$566**

B

Impact to Marine Ops and Maintenance			
	FY06 ($1,025)	FY07 ($710)	FY08-FY12 ($566)
Reduction in Operating Days	-85	-59	-47

Likely to have the greatest impact on NMFS if Operating Days reduced to support the Aviation Safety Program due to greatest % of Operating Days on the Fleet

C Reduction in Fleet Services: Platform Maintenance, Augmentation Pool, or remove platform(s) from service

Funding Alternative #2

- **Fleet Services funds Program Management**
- **Line Offices fund their Training and ALSE**

A

ONE POSSIBLE SCENARIO — Impact to Aircraft Services Funded Hours — ONE POSSIBLE SCENARIO						
Projects (Hours Allocated)	FY06 ($516)		FY07 ($469)		FY08-FY12 ($469)	
	-Hours	Dollars ($K)	- Hours	Dollars ($K)	- Hours	Dollars ($K)
Snow Survey (650)	-650.00	$149	-650.00	$149	-650.00	$149
Remote Sensing R&D (275)	-275.00	$168	-275.00	$168	-275.00	$168
Hurricane Research (P-3) (155)	-70.00	$198	-50	$150	-50	$150
Hurricane Research (G-IV) (120)						
Totals	**-995.00**	**$515**	**-975**	**$467**	**-975**	**$467**

B

Impact to Marine Ops and Maintenance			
	FY06 ($516)	FY07 ($469)	FY08-FY12 ($469)
Reduction in Operating Days	-43	-39	-39

C **Reduction in Fleet Services: Platform Maintenance, Augmentation Pool, or remove platform(s) from service**

Training and ALSE Cost $K in FY05 Dollars				
Line Office	FY05	FY06	FY07	FY08-FY12
NESDIS	$0	$7	$4	$2
NMFS	$0	$271	$113	$45
NOS	$0	$43	$22	$9
NWS	$0	$43	$22	$9
OAR	$0	$146	$79	$32
	$0	**$509**	**$240**	**$96**

⬅ **Line Office Training and ALSE**

Funding Alternative #3

- **Fleet Services funds Program Labor only.**
- **Line Offices fund their Training and ALSE and the remaining fixed costs for the Program**
  - Line Office Aviation Safety Program Fixed cost distribution based on combination % of overall hands-on training and total flight hours with LO personnel onboard

Program Management Cost Distribution Possibilities			
Line Office	**% personnel requiring hands-on training**	**% total flight hours with NOAA Personnel on board**	**Combination of hands-on training and total flight hours**
NESDIS	2%	2%	**2%**
NMFS	39%	58%	**49%**
NOS	13%	9%	**11%**
NWS	12%	23%	**17%**
OAR	34%	8%	**21%**

Program remaining fixed cost distribution

Funding Alternative #3

- **Fleet Services funds Program Labor only. Line Offices fund their Training and ALSE and the remaining fixed costs for the Program**

A

ONE POSSIBLE SCENARIO — Impact to Aircraft Services Funded Hours — ONE POSSIBLE SCENARIO						
Projects (Hours Allocated)	FY06 ($407)		FY07 ($378)		FY08-FY12 ($378)	
	-Hours	Dollars ($K)	- Hours	Dollars ($K)	- Hours	Dollars ($K)
Snow Survey (650)	-650	$149	-650	$149	-650	$149
Remote Sensing R&D (275)	-275	$168	-275	$168	-275	$168
Hurricane Research (P-3) (155)	-30	$90	-20	$60	-20	$60
Hurricane Research (G-IV) (120)						
Totals	**-955**	**$407**	**-945**	**$377**	**-945**	**$377**

B

Impact to Marine Ops and Maintenance			
	FY06 ($407)	FY07 ($378)	FY08-FY12 ($378)
Reduction in Operating Days	-34	-32	-32

C **Reduction in Fleet Services (Platform Maintenance, Augmentation Pool, or remove platform(s) from service)**

Line Office Cost Distribution $K in FY05 Dollars				
Line Office	FY05	FY06	FY07	FY08-FY12
NESDIS	$1	$9	$6	$4
NMFS	$26	$325	$158	$90
NOS	$6	$55	$32	$19
NWS	$9	$61	$37	$24
OAR	$11	$169	$98	$51
	$53	**$618**	**$332**	**$188**

Line Office funds for Training/ALSE and remaining Program Fixed Cost (minus labor)

Council Coordination & Views

- **NOAA Safety Council**
  - Approved Policy and Program
  - Requested continued coordination with Safety and Environmental Compliance Office (SECO) for:
    - Development of Risk Assessment Tools
    - Aviation Safety Awards
    - Aviation Accident/Incident Investigation and Tracking

Council Coordination & Views

- **Platform Allocation Council**
  - Commented on Policy and Program
  - FY06-10 PDM directed Fleet Services to fund the Program out of existing resources

Current Program Cost Estimate →

Aviation Safety Program Funding Required $K (FY05 dollars)				
	FY05	FY06	FY07	FY08-FY12
Total Funding Required	$140	$1,025	$710	$566

  - NMAO provided sample Line Office cost distribution for funding the Aviation Safety Program
    - Due to Allocation Council concern about potential impact to Fleet Services funded flight hours and operating days (follow-up tasking from August 2004 Council meeting following release of FY06-10 PDM)
    - Council expressed wide ranging views about the funding options presented for Line Office cost distribution
      - Requested alternate cost distribution methods

Council Views

- **CFO Council**
  - Recommend the Under Secretary reconsider decision to direct Fleet Services to fund the entire Program and choose Alternative #2:
    - Fleet Services covers the cost associated with Program Management (NMAO functional area of expertise)
    - Line Offices pay for their aviation safety training and ALSE
      - Direct control over number of personnel who fly and subsequently need training and ALSE

Aviation Safety Program Funding Required $K (FY05 dollars)				
	FY05	**FY06**	**FY07**	**FY08-FY12**
Program Management	$140	$516	$469	$469
Line Office Training & ALSE	$0	$509	$240	$96
Total	**$140**	**$1,025**	**$710**	**$566**

Output

- **NOAA Aviation Safety Policy (NAO)**
  - Brings NOAA into compliance with 41 CFR 102-33 Management of Government Aircraft
  - Standardized aviation safety policy for NOAA
  - Aviation Safety Management
- **Corporate NOAA Aviation Safety Program**
  - Reduce risk associated with NOAA's aviation operations
  - Creates safe 'aviation' work environment for NOAA personnel
  - Manages the components of an effective aviation safety program

Aviation Safety Program Implementation Plan

Aviation Safety Program Implementation Plan							
Task	Coordination	FY05	FY06				FY07
		Q4	Q1	Q2	Q3	Q4	Q1
Process NAO for formal clearance	CAO	X					
Write Charter for Aviation Safety Board		X					
Aviation Safety Board begin meeting		X					
Set up IDIQs for ALSE and Training	Acquisitions & Grants	X					
Hire Staff	Human Resources	X	X				
Draft Aviation Contract Language	Acquisitions & Grants	X	X	X			
Develop Aircraft Operator Evaluation Criteria	Aviation Safety Board	X	X				
Develop on-line databases (medical and aircraft operator)		X	X	X			
Develop NOAA E-Learning Modules	Training	X	X	X			
Develop Aviation Safety Awards Program	NOAA Safety		X				
Develop Aviation Accident/Incident Database	NOAA Safety		X				
Develop Risk Assessment/Mishap Response Tools	Aviation Safety Board		X	X			
Purchase ALSE			X	X	X	X	X
Plan first annual Aviation Safety Conference				X			
Contracts established with all training vendors				X	X		
Medical Screening				X	X	X	X
Aviation Safety Training for Personnel				X	X	X	X
Aircraft Operator Evaluations				X	X	X	X
Host first annual Aviation Safety Conference					X		
Lift Safety Stand-down						★	

Recommendation

- **Choose Funding Alternative #2**
  - **Fleet Services funds the Program Management for the Aviation Safety Program**
    - Compliance with FY06-FY10 PDM
    - Aviation Safety expertise resides in NMAO
  - **Line Offices fund their Training and ALSE requirements**
    - Line Offices
      - already budget for training
      - can control the numbers of personnel sent to training
      - can control the amount of ALSE purchased to support their flight requirements

Recommendation

- **Approve Aviation Safety Policy (NAO)** with full implementation required by 1 October, 2006
- **Continue "safety stand-down"** policy and procedures until full program and policy implementation is possible
- **Send draft NAO (version 4) to CAO** for formal clearance process

Decision Request

- **Request NOAA Executive Panel Endorsement:**
  - Aviation Safety Policy
  - Aviation Safety Program
  - Aviation Safety Program Funding Profile

Additional Information

Training and ALSE

- **PPBES Program Estimates FY08-FY12**

Aviation Safety Program funding estimates for training and ALSE $ Thousands (FY05 dollars)						
Mission Goal Program	FY06		FY07		FY08-FY12	
	Aviation Safety Training	Aviation Life Support Equipment	Aviation Safety Training	Aviation Life Support Equipment	Aviation Safety Training	Aviation Life Support Equipment
Satellite Services	$7	$0	$4	$0	$2	$0
Ecosystem Coastal and Marine Resources	$6	$4	$4	$1	$2	$0
Ecosystem Enforcement	$35	$52	$23	$13	$9	$5
Ecosystem Observation	$74	$111	$49	$28	$20	$11
Climate Forcing	$102	$44	$67	$11	$27	$4
Weather & Water Air Quality	$2	$1	$2	$0	$1	$0
Weather & Water LFW	$20	$11	$13	$3	$5	$1
Weather & Water Hydrology	$2	$1	$2	$0	$1	$0
Weather and Water STI	$2	$1	$2	$0	$1	$0
Commerce & Transportation Emergency Response	$19	$12	$13	$3	$5	$1
Commerce & Transportation Geodesy	$1	$0	$0	$0	$0	$0
Commerce & Transportation MTS	$1	$1	$1	$0	$0	$0
Total	$271	$238	$180	$60	$72	$24