NOAA Aviation Safety Policy
and
NOAA Aviation Safety Program

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Outline

- Purpose
- Issue
- Background & Discussion
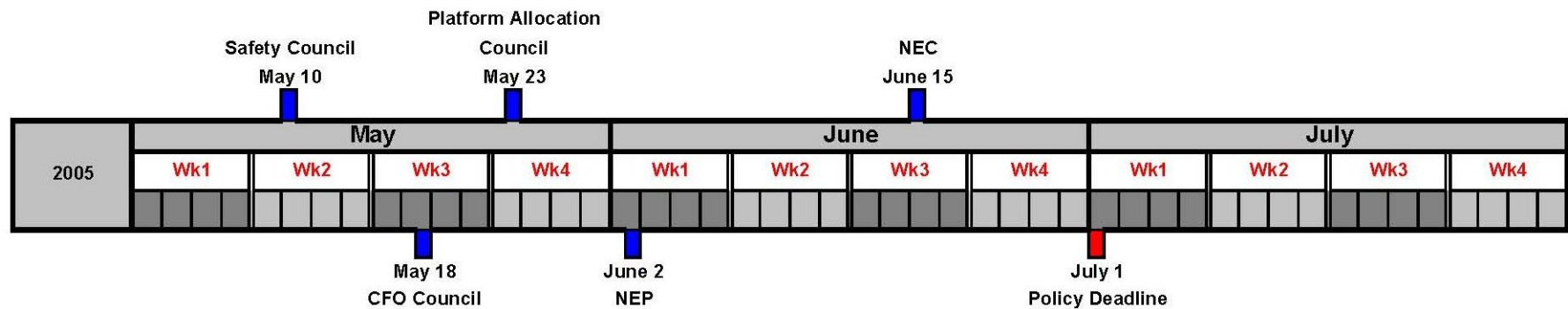- Output
- Recommendation

Purpose

- **Decision Briefing**
  - NOAA's Aviation Safety Policy
  - NOAA's Aviation Safety Program

- **Desired Decision**
  - NOAA Safety Council Endorsement of:
    - Draft Aviation Safety Policy
    - Proposed Aviation Safety Program

Issue

- **NOAA's Aviation Safety Policy and Aviation Safety Program briefing schedule:**

Background

- **Safety Stand-Down Regarding Use of non-NOAA Aircraft**
  - Safety Stand-down issued November 19, 2004
  - <u>Proactive</u> vs. <u>Reactive</u> management of a safety concern
    - Aviation Safety Program identified as a gap in FY06 – FY10 PPBES
    - NOAA employees (outside NOAA's Aircraft Operations Center) flying rented and privately owned aircraft for official business
    - Known charter flight hours at least equal to hours flown on NOAA aircraft
    - Unknown volume of "flights of opportunity"
    - Unknown level of aviation safety training for NOAA employees

Background

- **41 CFR 102-33 Management of Government Aircraft** (published in the Federal Register on November 6, 2002)
  - Requires NOAA to develop and implement "Flight Program Standards" for all aircraft operations
    - Must meet or exceed applicable civil and military standards
    - Management and administration of aviation safety program
    - Training for personnel
    - Appointment of qualified flight safety managers
    - Risk analysis and management
    - Aircraft accident and incident reporting
    - Aviation safety awards program
    - Aviation safety council
    - Aviation accident/incident response plan

Background

- **Safety stand-down policy progress**
  - Nov 19 – Mid December
    - Exemption requests and questions about applicability of stand-down to operations
  - Late December
    - First draft of NAO
  - Jan 10 – Jan 28
    - Draft NAO (version 1) - limited review and comment
  - Feb 7 – Feb 25
    - Revised draft NAO (version 2) reviewed by Line Offices and Labor Unions
      - Large volume of comments received
    - Training/ALSE Survey distributed to collect data

Background

- **Coordination**
  - March 16-18
    - NMAO hosted a workshop to resolve differences and redraft NAO
  - March 22 to April 8
    - Revised draft NAO (version 3) to Line Offices and Labor Unions for comment
    - Second Training/ALSE survey distributed to collect data
  - April 11 to May 2
    - Revised draft NAO (version 4)
    - Prepared final cost estimate for Safety Program
    - Finalized transition plan for Safety Program implementation

Background

- **Exemption Request Process set up by NMAO**
  - Use of Interagency Agreement with DOI
  - U.S. Military and Coast Guard aircraft
  - Application for Exemption
    - Signed by Line Office AA, DAA, or Staff Office Director
    - Aviation Operational Risk Assessment Board Recommendations
    - NOAA General Counsel review
    - Director NMAO grant or deny the exemption based on recommendations

Background

- **Exemption Request Statistics**

Requests for Exemption to the Safety Stand-down (Nov 04 - May 05)					
Requests for NOAA Mission Support	Line Office	Total Requests	Number Granted without restrictions	Number Granted with restrictions	Number Denied
Use of Privately Owned Aircraft	NMFS	2			2
Interagency Agreement with DOI	NMFS	23	23		
	NOS	4	4		
	NWS	5	5		
	OAR	2	2		
Application for Exemption (or request prior to application development)	NMFS	12	9	2	1
	NOS	10	7	3	
	NWS	1	1		
	OAR	2	2		
	Total	61			

Background

- **March 16-18 Policy Redraft Workshop**
  - **Major Issues Discussed (version 2) & Consensus Agreements**
    1. **Scope of NAO**
       a) Do not impose standards on Grant recipients
    2. **NOAA Aircraft Operator Database (NAOD)**
       a) Reciprocity with ICAP members (other Federal Agencies)
    3. **Complexity of Program Structure**
       a) Remove two layers of aviation safety management
    4. **Aviation Safety Board Membership and Authority**
       a) Aviation Safety Program Manager non-voting Chair
          i. Latest draft policy (version 4) – ASPM Chair (voting member)
       b) AOC – 4 members with one vote
          i. Latest draft policy (version 4) – AOC one member with one vote

Red Text indicates post-workshop revisions

Background

- **March 16-18 Policy Redraft Workshop** (Continued)

  - **Major Issues Discussed (version 2) & Consensus Agreements**

    5. **Transportation vs. Operations (clearly define)**

       a) Transportation – movement of persons and/or property from point A to point B

       b) Operations – all flight activity other than transportation

    6. **Medical Screening**

       a) Required for all NOAA personnel that may fly as part of official duties

       b) Required for all personnel flying on aircraft owned or operated by NOAA

    7. **Privately Owned Aircraft**

       a) May be used for Transportation <u>only</u> – not for Missions

Background

- **March 16-18 Policy Redraft Workshop** (Continued)
  - **Major Issues Discussed (version 2) & Consensus Agreements**
    8. **NOAA Scientists/Pilots**
       a) One standard for all NOAA Pilots (AOC Aircraft Operations Manual)
    9. **Accident/Incident Reporting**
       a) For contracts – make aircraft operator responsible for reporting to Aviation Safety Program Manager and Contracting Officer
    10. **Observer Participation**
        a) Medical Screening required
        b) ALSE appropriate for flight
        c) Pre-flight safety briefing by flight crew

Background

- **March 16-18 Policy Redraft Workshop** (Continued)
  - **Major Issues Discussed (version 2) & Consensus Agreements**
    - **11. Appendix B – NOAA Minimum Aviation Safety Standards**
      - a) Remove from NAO
      - b) Work with Acquisitions and Grants and Aviation Safety Board to develop standards for contracts and agreements
    - **12. Aviation Safety Training**
      - a) NOAA Aviation Safety Board determines appropriate training (and ALSE) based on exposure to risk (mission, aircraft type, trip frequency)
        - i. Latest draft policy (version 4) – NMAO made recommendations in draft policy
        - ii. Program Cost Estimate and NEC acceptance of Policy could not be accomplished if we wait for Aviation Safety Board members to be identified and meetings to begin
        - iii. Recommend ASB review draft requirements presented in NAO

Red Text indicates post-workshop revisions

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Personnel who fly for NOAA

- **NOAA Aviation Safety Survey Results**

(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

Aviation Safety Training

- ## Draft Aviation Safety Policy:
  (Version 4 of NAO – 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
Passenger Transportation	NOAA	√	√				
Passenger Transportation	Non-NOAA						
Passenger Transportation over water	NOAA	√	√	√			
Passenger Transportation over water	Non-NOAA						
Mission Operations Overwater	NOAA	√	√		√		
Mission Operations Overwater	Non-NOAA		√		√		
Mission Operations in Cold Weather (<32F)	NOAA	√	√				√
Mission Operations in Cold Weather (<32F)	Non-NOAA		√				√
Mission Operations above 10,000 feet	NOAA	√	√			√	
Mission Operations above 10,000 feet	Non-NOAA		√			√	

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

Aviation Life Support Equipment

- **Draft Aviation Safety Policy:**
  (Version 4 of NAO – 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
Passenger Transportation over water	√	√	√	
Mission Operations Overwater	√	√	√	
Mission Operations in Cold Weather (<32F air temp or <59F water temp)				√

Aviation Safety Survey Results

- ## Current training identified by respondents
  (April 2005 Survey Data)

Aviation Safety Training Provided by Line Office or AOC					
	Training received within previous 5 years				
Line Office	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

Aviation Safety Survey Results

- ## NMAO determination of ALSE Required:
  (April 2005 Survey Data)

	Aviation Safety Program Training and ALSE needed by Line Office								
Line Office	Total Personnel				ALSE Units to be Purchased				
	Basic Aviation Safety (NOAA E-Learning)	Water Survival Training	Cold Weather Survival Training	Altitude Chamber Training	Switlick Vest	PLB	Near-Shore Raft	Offshore Raft	Anti-Exposure Suit
NESDIS	6	6	6	6	0	0	0	0	0
NMFS	371	276	24	0	100	19	5	4	73
NOS	98	30	66	3	12	3	1	0	9
NWS	2919	40	56	0	11	3	0	0	11
OAR	131	92	73	99	27	7	0	2	10
Total	3525	444	225	108	150	32	6	6	103

Note: Water Survival Training is needed for 220 personnel (in addition to 444 listed above) who only participate in passenger transportation flights.   Training to be provided by viewing a Water Ditching and Egress Video.

Draft NAO (version 4)

- ## **Aviation Safety Policy Highlights**
  - Reduces risk associated with aircraft operations by:
    - Ensuring aircraft meet NOAA airworthiness and operational safety standards
    - Requiring medical screening of personnel
      - To identify medical conditions that could be aggravated by:
        - » Flight - due to atmospheric pressure changes
        - » Cramped conditions for extended periods in small aircraft
        - » Aviation safety training that may be required (underwater egress training, altitude chamber training)
    - Providing personnel with appropriate Aviation Safety Training and Aviation Life Support Equipment

- **Aviation Safety Policy Highlights** (continued)
  - Establishes a corporate NOAA:
    - Aviation Safety Board
    - Aviation Safety Program
  - Ensures NOAA aviation safety standards are incorporated in aviation services procurement documents
  - Establishes requirement for all NOAA employee/pilots to meet the same operational safety standards to fly missions on behalf of NOAA

Aviation Safety Board

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

Aviation Safety Board

- **NOAA Aviation Safety Board (Continued)**
  - Reviews:
    - Reported 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
  - Solicits the aviation safety needs of Line Offices
  - Recommends to the NOAA Safety Council:
    - policy, guidance, standards, training, funding and staffing to promote program safety, efficiency, and expertise.

Aviation Safety Program

- **Program Highlights**
  - Full-time aviation safety staff
  - Provides aviation safety tools and training
  - Acquire, distribute, and maintain ALSE
  - Evaluates aircraft operators
  - NOAA Aircraft Operator Database (NAOD)
  - Host annual aviation safety conference
  - NOAA aviation safety awards program
  - Aircraft accident and incident database (populated with aviation incident and accident data from NOAA Safety)
  - Assists NOAA contracting officials with safety aspects of aviation services procurement

ASP Implementation

- ## FY 05 (4th quarter)
  - Secure funding for ASP
  - Begin process to hire staff
  - Write charter for Aviation Safety Board and begin meeting
  - Work with Acquisitions and Grants to draft aviation contract language incorporating aviation safety policy
  - Develop aircraft operator evaluation checklists and procedures
  - Develop on-line Medical Screening and Aircraft Operator databases

ASP Implementation

- **FY06 (1st quarter)**
  - ASP staff on-board
  - begin medical screening of personnel (via web-database)
  - Begin development of NOAA E-Learning modules
  - Develop NOAA aviation safety awards program
  - Develop aviation incident/accident database
  - Develop Risk Assessment and Mishap Response Tools
- **FY06 (2nd quarter)**
  - Begin purchasing ALSE
  - Begin aviation safety training for personnel
  - Begin evaluating aircraft operators
  - Plan first annual NOAA Aviation Safety Conference

ASP Implementation

- **FY06 (3rd quarter)**
  - Host first annual Aviation Safety Conference
  - Contracts set up with training vendors for all required NOAA aviation safety training
  - Continue acquisition of required ALSE
  - Continue aircraft operator evaluations

- **FY 06 (4th quarter)**
  - Initial ALSE acquisition complete
  - 15 Aircraft operator evaluations complete

- **FY07 (1st quarter)**
  - Safety Stand-down lifted on October 1, 2006

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 <u>Management</u>

Output

- **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

Recommendation to NEC

- **Upon NEC approval of Program and Policy:**
  - Approve funding transfer - 1 July 2005
  - Approve Aviation Safety Policy with full implementation required by 1 October, 2006
  - Continue "safety stand-down" policy and procedures until full program and policy implementation is possible
  - Allow NMAO to send draft NAO (version 4) to CAO for formal clearance process

Recommendation

- **Request NOAA Safety Council Endorsement of Proposed:**
  - Aviation Safety Policy
  - Aviation Safety Program