

**July 2020** 

# Signatures and Updates

The BSEE National Aviation Management Plan (December 2019), has been formally reviewed and is approved.

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Chief, Office of Offshore Regulatory Program	Date					
The BSEE Office of Offshore Regulatory Pro reviewed and updated the 2020 National Avia						
BSEE National Aviation Manager	Date					
The BSEE Office of Offshore Regulatory Progreviewed and updated the 2021 National Aviat						
BSEE National Aviation Manager	Date					



## **National Aviation Management Plan**

Table of	<u>Contents</u>	i-iii
Major Cha	anges	iv-vi
Introducti	on	1
Section 1	Aviation Organization	2
	A. Roles and Responsibilities.	2
	B. Aviation Program Objectives	
	C. Authorities and References	
	D. National Aviation Management Plan Revision Schedule	
	E. BSEE Organizational Requirements	11
Section 2	Aviation Administration	14
	A. Contracts (non-fleet)	14
	B. Acquisition (fleet)	
	C. Use Reports and Payments Processes	
	D. Record Keeping Requirements	
	E. Administrative Requirements	19
Section 3	Aviation Safety	
	A. Policy	
	B. Risk Management	22
	C. Promotion	26
	D. Assurance	
	E. Documentation Requirements	
	F. Personal Protective Equipment	
	G. Reporting Airspace Conflicts through the SAFECOM System	42
Section 4	Aviation Operations	44
	A. Special Use	44
	B. Fixed Wing	45
	C. Rotary Wing	45
	D. Fleet Operations	46
	E. Cooperator Operations	46
	F. Passenger Transport	46
	G. Hazardous Material Transport	49
	H. Flight Planning	49

	I. Flight Following	50
	J. Unmanned Aircraft Systems	
	K. Operational Environmental Considerations	
	L. Documentation Requirements	
	M. Bureau-Specific Operational Requirements	
Section 5	Aviation Training	58
	A. Management Responsibilities	
	B. Required Aviation Training	
	C. Specialty Training	
	D. Contracting Officer's Representative (COR) requirements	
	E. Documentation Requirements	
	F. Bureau-Specific Training Requirements (HUET)	
Section 6	Aviation Security	64
	A. Aviation Facilities	
	B. Aircraft and Equipment	64
	C. Aviation Fuel Security	65
	D. General Aviation Security Programs	
	E. U.S. Coast Guard (USCG) Maritime Security (MARSEC) and DHS.	
	National Terrorism Advisory System (NTAS)	
Section 7	Airspace Coordination	66
	A. General	66
	B. Definitions	66
	C. De-Confliction Procedures	67
	D. Emergency Security Control of Air Traffic (ESCAT) Procedures	67
	E. Bureau-Specific Airspace Requirements	67
Section 8	Aviation Project Planning Requirements	68
	A. Policy	68
	B. Regional Aviation Management Plans (RAMPs)	68
<b>Append</b>	<u>ices</u>	
Appendix	Section A - Offshore Travel Authorizations	
Appendix	A.1. Authorization for Use of BSEE Contract Aircraft	A.1.1-5
	A.2. DOI Solicitor's Letter, February 13, 2020, subj: Company	
	presentatives on Agency Inspection Flights to Unmanned Platforms	
Appendix	A.3. Offshore Visitors Information Form	A.3.1-2
	Section B - Aviation Hazard reporting Program	
Appendix	B.1. BSEE SAFECOM Program	B.1.1-7
	Section C - Aviation Training	
Appendix	C.1. Helicopter Underwater Egress, and Marine Survival, Training	C.1.1-6
Appendix	C.2. OPITO CA-EBS Training Requirements	C.2.1

Appendix C.3. Sample Request for Modified HUET	2
Appendix C.3. Interagency Aviation Training Program (IAT)	7
Appendix C.4. M2 Aviation Managers Briefing Outline	3
Appendix Section D – Aviation Life Support Equipment (ALSE)	
Appendix D.1. SPH-5 Flight Helmet User Guide	3
Appendix D.2. SPH-5 Flight Helmet Cleaning and Disinfecting Procedures D.2.1-2	2
Appendix D.3. Sample ALSE Waiver	ĺ
Appendix D.4. CA-EBS General Information	
Appendix D.5. Aqualung procedures for cleaning and disinfecting CA-EBS D.5.1-2	2
Appendix Section E – Aviation Mishap Response	
Appendix E.1: Aviation Mishap Response Plan E.1.1-4	ļ
Appendix E.2: Aviation Incident Response Exercise E.2.1-2	2
Appendix Section F – Risk Assessment Tools	
Appendix F.1. Risk Assessment Matrix F.1.1	ĺ
Appendix F.2. DOI Operational Risk Management Worksheet	Ĺ
Appendix F.3. Special Use Mission Risk Assessment F.3.1	Į
Appendix Section G – Threat Advisory and Security Guidelines	
Appendix G.1. BSEE Threat Advisory Guidelines for OCS Operations	3
Appendix H – Additional Aviation Safety Tools & References	
Appendix H.1. Pilot Briefing Requirements H.1.1	ĺ
Appendix H.2. Example Format for Aviation Safety Meeting Minutes H.2.1	Ĺ
Appendix H.3. Consolidated List of Position Responsibilities	ļ
Appendix H.4. Sea States and Helicopter Float Limitations	5

## 2020 NAMP Major Changes

### **Section 1 - Aviation Organization**

- Page 7 Section 1. A. 2. g. Managers and Supervisors Elaborated on responsibilities to manage aviation training.
- Page 12 Section 1. E. 2. Project Aviation Safety Plans (PASPs) Expanded and explained when a PASP is required and the types of missions BSEE conducts that require PASPs.

#### **Section 2 - Aviation Administration** – No major changes.

#### **Section 3 - Aviation Safety**

- Page 26 Section 3. C. 1. Aviation Training Moved the explanation of aviation training policy requirements to Section 5.
- Page 30 Section 3. E. Documentation Requirements Added specific requirements for Aviation Incident Response Exercise documentation.
- Page 31 Section 3. F. 2. g. ALSE Technician –Introduced training standards) for initial qualification and refresher training for a BSEE ALSE technician. Discuss how (or if) a DOI or BSEE employee can present flight helmet training.
- Page 32 Section 3. F. 4. a. 1. f. The flight helmet visor is required to be worn in the down position unless the visor interferes with required prescription eyewear
- Page 32 Section 3. F. 4. A. 1. g. Flight Helmets Added requirement for helmets to be cleaned and disinfected in accordance with manufacturer's guidance.
- Page 36 Section 3. F. 4. a. 5. Compressed Air Emergency Breathing Systems Established BSEE CA-EBS policy.

#### **Section 4 - Aviation Operations**

- Page 44 Section A. Aviation Operations Added detail to explanation of Special Use missions.
- Page 49 Section 4. F. 8. b. 1. SES Travel Increased the lead time required for SES travel approval to 10 days. Change was required to allow time for the Aviation Service Provider, District, Regional, Headquarters, and Solicitor (and if necessary DOI Chief of Staff to review and approve the mission.

• Page 55 – Section 4. M. 7. – Sea States and Float Limitations – Provides a brief overview of sea states and float limitations and establishes (initial) sea state policy.

#### **Section 5 - Aviation Training**

- Pages 58-62 Section 5. A. Introduction, B. Responsibilities, and C. Required Aviation Training Incorporated information from Section 3. C. 1.
- Page 61 Section 5. C.1. M2 Aviation Management Line Manager's Briefing Establishes policy and procedures.
- Page 63 Section 5. F. 3. Interagency Aviation Training (IAT) Trainer Establishes eligibility requirements for the A220 Train-the-Trainer course.

**Section 6 – Aviation Security -** No major changes.

**Section 7 - Airspace Coordination**- No major changes.

**Section 8 – Aviation Project Planning Requirements** - No major changes.

All appendices have been re-sequenced and the following appendices added:

## **Appendix A.1 - Authorization for Use of BSEE Contract Aircraft**

Page A.1.1 – Authorization for Use of BSEE Contract Aircraft – Divided non-Federal passengers into two categories.

- Senior Executive Branch, Senior Federal Officials, and Non-Federal Visitors (other than Company Representatives on Agency Inspections Flights to Unmanned Platforms)
  - $\circ$  Increases the lead time from 5 to 10 days for coordinating and receiving travel approval from the DOI Solicitor.
- Establishes policy for Company Representatives on Agency Inspections Flights to Unmanned Platforms.

# Appendix A.2 - DOI Solicitor's Letter, February 13, 2020, subj: Company Representatives on Agency Inspection Flights to Unmanned Platforms

Page A.2.1 – Provided the letter from the DOI Solicitor that explains that non-Federal passengers, particularly Oil and Gas personnel, may be transported in BSEE contracted aircraft under very specific conditions, without individual approval of the DOI Solicitor.

## **Appendix C.2 – OPITO CA-EBS Training Requirements**

Page A.2.1 – Provided the OPITO training requirements for CA-EBS. All training is conducted in the shallow end of the pool and is not allowed to be used in the METS (Modular Egress Training Simulator).

## Appendix C.4 – Interagency Aviation Training (IAT) Program

Page C.4.2 – Updated definitions for the three categories of passengers (Visitors, Non-Routine Offshore Travelers, and Routine Offshore Travelers). This change increases from 2 to 4 the number of flights per year that visitors and non-routine offshore travelers can fly without incurring aviation training, HUET, and CA-EBS requirements. It also decreases from 6 to 5 the number of flights per year that define a routine offshore traveler.

## Appendix C.5 – M2 – Aviation Management Line Managers Briefing Syllabus

Pages C.5.1-8 – Provided syllabus that IAT instructors should use when presenting M2 briefings to BSEE managers.

## Appendix D.2 – SPH-5 Flight Helmet Cleaning and Disinfecting Procedures

Pages D.2.1-2 – Provided the manufacturer's cleaning and disinfecting procedures for BSEE flight helmets.

### **Appendix D.4 – Compressed Air Emergency Breathing Systems (CA-EBS)**

Pages D.4.1-3 – Provided background on the development of CA-EBS, the BSEE Pilot Program, and the Pricewaterhouse Coopers study on CA-EBS commissioned by BSEE.

## Appendix D.5 – Aqualung Procedures for Cleaning and Disinfecting CA-EBS

Pages D.5.1-2 – Provided the manufacturer's cleaning and disinfecting procedures for CA-EBS.

## Appendix F.3 – Special Use Mission Risk Assessment

Page F.1.1 – Added a risk assessment designed for special use missions and project aviation safety plans (PASP). This tool is intended for use during missions when there is not time for more formal management of the risks.

#### **Appendix H.4 – Sea States and Float Limitations**

Pages H.4.1-6 – Provided background on the environmental factors that influence sea states (wind velocity, wave height, and wave steepness), equipment (aircraft floats), and helicopter float limitations and mitigation strategies.

#### Introduction

The Bureau of Safety and Environmental Enforcement (BSEE) National Aviation Program plays an essential role in supporting the Bureau's ability to achieve OCS mission objectives. Its purpose is to promote a safety culture of sound aviation management practices that reduce risks inherent in aviation and eliminate unnecessary or unacceptable risks associated with the use of aviation. Management at all levels is responsible for the safety of aviation operations under their control. This responsibility includes direct supervision, training, and providing safe working conditions.

BSEE Employee Prerogative. While performing their duties, BSEE personnel may elect, without fear of reprisal, to not fly under any condition they consider to be unsafe.

It is the employee's responsibility to immediately report any aviation hazard that compromises the safety of personnel or equipment via a Safety Communiqué (SAFECOM) <a href="https://www.safecom.gov/">https://www.safecom.gov/</a>.

Department of the Interior (DOI) policy requires all Bureaus with aviation programs to develop and publish a National Aviation Management Plan (NAMP) that addresses the minimum elements to improve aviation safety and realize operational efficiencies through broad standardization.

The BSEE NAMP provides a comprehensive bureau-wide aviation plan that will allow all BSEE aviation users to easily acquire the necessary policies and information to manage aviation operations. The NAMP describes intent, policy, authority, objectives, roles and responsibilities, and procedures for the management and implementation of the BSEE aviation management program.

The NAMP is consistent with the provisions of DOI aviation policy established in Parts 350-353 of the Departmental Manual (DM) and the DOI Office of Aviation Services (OAS) Operational Procedures Memorandums (OPM). The NAMP also includes guidelines for the use of all aviation resources owned, leased, or chartered by the Interior Business Center Acquisition Services Directorate (AQD) for BSEE mission accomplishment including the use of cooperator (i.e. military and other Government agencies) aircraft. The NAMP applies to BSEE personnel traveling as non-revenue passengers aboard civil aircraft operating in accordance with 14 CFR 91, 125 or 135.

The policies, procedures and guidelines set out in this NAMP are to be followed unless specific waivers are approved in writing by the BSEE Director or the Director's designee per 119 DM 4.

## **Section 1.** Aviation Organization

## A. Roles and Responsibilities

- 1. Department of the Interior. The DOI seeks to enhance collaboration and sharing of strategic aviation opportunities across bureaus and offices and to promote the use of enterprise aviation services using high value, national level information to inform and enhance priority initiatives, natural resource management decisions and related policy formulation. While the DOI presently owns, and procures aviation resources through an enterprise approach, improvement in the enterprise-level management of these assets across the DOI is needed to address large scale strategic policy development, implementation, cost, and safety issues.
  - a. **Office of Aviation Services** (OAS)<sup>1</sup>. The OAS is responsible for Departmental functions related to aircraft services. The OAS provides service offerings that include; aviation safety services (mishap investigations, program evaluations, and safety alerts/bulletins), aviation technical services, fleet management, fleet property accountability, aviation user training services, and flight scheduling and coordination services.
  - b. Interior Business Center (IBC) Acquisition Services Directorate (AOD), Boise Branch. The AQD provides department-wide centralized contracting for aviation flight services for DOI and DOI customers. AQD is responsible for the centralized contracting for aircraft and related services for all DOI Bureaus and other Federal and State agencies upon request. Other acquisition management activities include property accountability and small purchase service in support of OAS and Bureau operations including DOI fleet aircraft.
  - c. **Executive Aviation Board** (EAB). The EAB is chartered under the direction of the Assistant Secretary for Policy, Management, and Budget and is responsible for the DOI aviation program. The EAB provides executive oversight and performance accountability and assures that Department-wide strategies and initiatives are developed collaboratively and implemented consistently. The EAB has authority over all aviation related boards/committees/groups within DOI. The Chief, Office of Offshore Regulatory Programs (OORP) serves as BSEE's EAB representative.
  - d. **Executive Aviation Committee** (**EAC**). The EAC functions as the primary executive body responsible for developing strategic aviation objectives and initiatives as well as implementing EAB initiatives and strategies. The EAC is comprised of DOI Bureau aviation executives and management. The Chief, Offshore Safety Improvement Branch (OSIB) serves as BSEE's EAC representative.
  - e. **Executive Aviation Sub-Committee** (**EAS**). To collectively consider aviation issues that are common to all Bureaus, the EAC formally established the EAS. The

<sup>&</sup>lt;sup>1</sup> See 350 DM 1 for a complete list of functions and responsibilities. The OAS organizational structure and responsibilities are contained in 112 DM 12

EAS functions as the primary Subject Matter Expert (SME) with regards to DOI aviation topics and is the primary group to complete tasks issued by the EAC. BSEE is represented on the EAS by the National Aviation Manager. The EAS has the authority to establish work groups comprised of bureau subject matter experts (SME) with detailed knowledge of EAC assigned tasks and/or DOI aviation.

Current EAC work groups organized under the EAS that BSEE participates in include:

- i. Interagency Aviation Training Subcommittee (IATS): Serve as a group of aviation specialists that represent their Agency/Bureau requirements specific to the non-fire Interagency Aviation Training Program. The Subcommittee will provide guidance and recommendations to aviation managers regarding non-fire aviation training standards and requirements.
- **2 Bureau of Safety and Environmental Enforcement.** Ultimate responsibility for the management of all aviation programs, activities and resources lies with the Director of BSEE in accordance with 352 DM 1.6 C. This responsibility is administered through the Deputy Director<sup>2</sup> and BSEE's aviation governance structure. More specifically, aviation responsibilities are delegated as follows:
  - a. **Chief, Office of Offshore Regulatory Programs (OORP).** The Chief, OORP is responsible for the oversight of BSEE aviation management (<u>119 DM 4</u>) and is BSEE's EAB representative.
  - b. **Chief, Offshore Safety Improvement Branch (OSIB).** The Chief OSIB provides aviation policy oversight and guidance to the BSEE Aviation Team consisting of the National Aviation Manager and other designees. The Chief, OSIB, is BSEE's EAC representative.
  - c. National Aviation Manager (NAM). The NAM serves as the principle aviation advisor to BSEE management. The NAM assists in the oversight of aviation management and programs at the national level and provides technical expertise that supports and improves BSEE's capacity to manage its aviation programs in a result-oriented and efficient manner. The NAM also serves as the principle aviation safety and aviation training advisor to BSEE management and all BSEE aviation users. This position provides leadership and technical expertise for aviation safety management systems, risk management, and accident prevention programs. Specific responsibilities for the NAM position include:
    - i. Ensuring aviation programs, procedures, and guidelines comply with and implement DOI aviation policy and directives;
    - ii. Providing oversight in the planning and technical analyses relating to acquisition and cost-effectiveness of aviation resources;
    - iii. Reviewing, revising, and maintaining the National Aviation Management Plan annually;

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<sup>&</sup>lt;sup>2</sup> In the absence of a Deputy Director the Chief, OORP will fulfil the aviation responsibilities of the Deputy Director.

- iv. Representing BSEE as a member of the DOI Executive Aviation Subcommittee (EAS);
- v. Collaborating with the Regional Aviation Managers to ensure safe and efficient use of all aviation resources in the accomplishment of the BSEE mission;
- vi. Providing oversight of BSEE's aviation training program and providing training/certification guidance (curriculum, and course materials, instructing) for all BSEE aviation users:
- vii. Evaluating of the effectiveness of existing BSEE aviation safety programs and identification, development, and implementation of new opportunities that enhance BSEE's aviation safety culture;
- viii. Providing oversight and management of the BSEE SAFECOM program to include the investigation and tracking of reported incidents for trend analysis and publishing BSEE SAFECOM Summaries;
- ix. Providing oversight and management of the BSEE HUET (Helicopter Underwater Egress Training) and CA-EBS (Compressed Air Emergency Breathing Systems) programs and investigation of reported incidents;
- x. Serving as the BSEE liaison to National Transportation Safety Board (NTSB) and OAS accident investigation teams;
- xi. Representing BSEE at the Interagency Aviation Training Subcommittee (IATS), and other non-BSEE aviation organizations (e.g. HSAC, OPITO, etc.); and.
- xii. Collaborating with Regional aviation managers to ensure safe and efficient use of all aviation resources in the accomplishment of BSEE missions.
- d. **Regional Director (RD).** Each Regional Director is responsible for:
  - i. Administering and adhering to DOI aviation policy, the BSEE National Aviation Management Plan and the Regional Aviation Management Plan.
  - ii. Managing and funding contracted aviation resources and services within their Region.
  - iii. Implementing an effective aircraft accident prevention program within their respective region.
  - iv. Designating in writing a Regional Aviation Manager<sup>3</sup> (either full-time or collateral) with copies of the written designations forwarded to the Chief, OORP,

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<sup>&</sup>lt;sup>3</sup> The written designation requirement may be documented in the RAMP, in the individual's PD, in an email or on Regional letterhead.

and Bureau NAM. RDs are encouraged to designate a Regional Aviation Safety Manager (RASM).

- v. Reviewing, approving, and signing the Regional Aviation Management Plan a minimum of every three years.
- e. **Regional Aviation Manager (RAM)**<sup>4</sup>. The RAM serves as a principle aviation advisor to the RD and provides aviation management direction and aviation expertise for their respective region. Specific aviation responsibilities include:
  - i. Serving as the primary point of contact for all Regional aviation matters;
  - ii. Reviewing, revising, and maintaining the Region's Aviation Management Plan annually;
  - iii. Assisting the RD and NAM in establishing aviation safety programs, and accident prevention measures;
  - iv. Participating in operations, evaluations and reviewing aviation plans and procedures;
  - v. May serve as the contracting officer's representative (COR) on Regional aviation service contracts but will not be the COR on any end-product contracts that involve aviation services or equipment. If the RAM does not perform COR duties on aviation contracts the RAM will be involved to ensure the Departmental and BSEE aviation management, aviation safety, and aviation contract policies are complied with;
  - vi. Collaborating with the NAM to ensure that regional and district aviation management, and safety programs comply with applicable DOI and BSEE aviation policies, regulations, and guidelines;
  - vii. Disseminating all Departmental Manual releases, policy statements, and other aviation related material;
  - viii. Providing oversight and monitoring the management of aviation resource usage and requirements;
  - ix. Providing information to the Regional Director for budget preparation and other aviation related fiscal matters; and,
  - x. Managing, and supporting participation in, the SAFECOM program, to include the investigation and tracking of reported incidents;
  - xi. Managing, and supporting participation in, the BSEE Aviation Awards program.

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<sup>&</sup>lt;sup>4</sup> For expanded list of RAM duties see Appendix H.3

- xii. Providing oversight of the Region's aviation training program. Regional Aviation Managers are encouraged to become qualified IAT trainers and will either conduct, or assist in the conduct of, all A-310 (Crew Resource Management) and A302 (Personal Responsibilities and Liabilities) courses in order to provide Regional input to those courses;
- xiii. Providing oversight and management of the Regional HUET and CA-EBS programs and investigation of reported incidents;
- xiv. Serving as the Region's primary liaison to National Transportation Safety Board (NTSB) and OAS accident investigation teams;
- f. **Mission Chief (MC).** Unless otherwise designated by the RD the most senior BSEE inspector will assume the role of Mission Chief. The Mission Chief will:
  - i. Assist in the planning and safe execution of the mission;
  - ii. Maintain a working knowledge of the DOI aviation policies and BSEE National and Regional Aviation Management policies;
  - iii. Maintain a general knowledge of aircraft and aircrew capabilities and limitations:
  - iv. Collaborate with pilot the pre-mission planning and in-flight emergency duties of passengers and ensure the pilot provides a pre-flight briefing in accordance with the contract;
  - v. Report any condition, observation, act, problem or circumstance that has the potential to cause aviation related mishaps or accident via SAFECOM;
  - vi. Ensure that pilots and aircraft are properly carded for the mission(s) to be conducted:
  - vii. Ensure that emergency equipment required by the contract is aboard each flight (Emergency Locator Transmitters, Life Raft, survival equipment, etc.);
  - viii. Ensure occupants of the aircraft have, and are properly using, required personal protective equipment (flight helmet, hearing protection, life vest, etc.); and,
  - ix. Ensure CA-EBS is only provided to personnel who are properly qualified and current in accordance with BSEE National and Regional policy.
  - x. Ensure the pilot performs pre-flight duties such as pilot briefing (see Appendix C.4), stowing of equipment and security of doors.
  - xi. Collaborate with the Pilot to verify and accurately complete documentation related to the flight. This includes:

- Verifying a current copy of the contract is present,
- Verification of Hobbs meter reading before and after flight.
- Accurate documentation of flight times<sup>5</sup> and passenger information, and
- Completion of US Customs paperwork.
- xii. Ensure that all DOI requirements for special use activities<sup>6</sup> are complied with before special use activities (e.g. reconnaissance missions, low-level flights, vessel landings, and mountainous operations) are conducted;
- xiii. Ensure pandemic or other health-related protective measures<sup>7</sup> are in place and enforced as required.
- **g.** Managers and Supervisors. All BSEE managers and supervisors who supervise employees that use aviation resources to achieve mission goals must ensure all aviation operations are conducted in a safe, efficient and environmentally sound manner. Managers and supervisors whose employees use aviation resources will:
  - i. Ensure they and their employees comply with the DOI and Bureau regulations, policies, and guidelines;
  - ii. Ensure personnel performing aviation functions receive and maintain currency in aviation training (IAT, HUET, and CA-EBS) as required by DOI and BSEE policy (Appendices C.3, C.1, and Section 3. F.4. a. 5).
- iii. Ensure aviation training records for their organization are reviewed monthly and report the status to the RD and RAM.
  - District Managers (DMs) are encouraged to appoint a Unit Aviation Training Advisor (UATA)<sup>8</sup> to assist in the administration of the District's aviation training program.
  - UATAs will coordinate with the OAS Training Division (OAS TD) to get access to the IAT records for that District.
- iv. Advise unit personnel when their aviation training is within 90, 60, and 30 days of expiration.
- v. Ensure that personnel who are not in compliance with BSEE aviation training requirements are restricted from performing aviation duties until they are in compliance.

<sup>&</sup>lt;sup>5</sup> See detailed description on documentation of flight times in Section 2 C 1, and the appropriate Regional Aviation Management Plan

<sup>&</sup>lt;sup>6</sup> Requirements for special use activities are discussed in Section 1, para E. 2., Section 8, and Appendix G.3

<sup>&</sup>lt;sup>7</sup> See Section 4, paragraph F.9. for Social Distancing procedures.

<sup>&</sup>lt;sup>8</sup> A Unit Aviation Training Advisor (UATA) assists management by monitoring the aviation training status (completion and currency) of all employees, assigning IAT courses to new employees, and removing employees from the unit's IAT roster who are no longer in the unit. The UATA should also notify the employee, their supervisor, and the District Manager when an employee's aviation training is about to expire or has expired.

- vi.Ensure aviation life support equipment is available and maintained in serviceable condition.
- vii.Ensure personnel are provided with, and properly wear, appropriate personal protective equipment;
- viii.Complete and maintain currency in IAT courses required by OPM 4 and the NAMP (Appendix D). Managers and supervisors who fail to complete or maintain currency with their IAT requirements (Appendix D) are prohibited from exercising their management or supervisory roles over aviation personnel or operations until those IAT requirements are complete and current.

#### **B.** Aviation Program Objectives.

- **1. Mission Statement.** BSEE works to promote safety and efficiency, protect the environment, and conserve resources offshore through vigorous regulatory oversight and enforcement. Aviation plays an essential role in supporting BSEE's ability to achieve mission objectives.
- **2 Philosophy.** BSEE aviation safety and aircraft mishap prevention is based on the philosophy that all aircraft mishaps can be prevented, and that mishap prevention is an inherent function of management. The Director is ultimately responsible for the management of aviation resources and the implementation of effective aircraft mishap prevention programs. Supervisors and managers at all levels are delegated responsibility for the safety of aviation operations under their control.

Within this NAMP are the practical requirements to provide safe working conditions, prevent injuries to employees, and protect property from damage. Application of approved practices is a fundamental responsibility of managers and supervisors and represents an area in which performance and accountability must be emphasized.

- 3 Program Objectives. BSEE intends to expand its role as a world leader in safety and environmental stewardship. BSEE will promote a safety culture of sound aviation management practices that reduce risks inherent in aviation and eliminate unnecessary or unacceptable risks associated with the use of aviation while maintaining high personnel standards and a commitment to excellence, integrity, and the innovation of progressive ideas to further enhance safety, environmental protection, and conservation of resources. BSEE's aviation program objectives include:
  - a. Expand aviation safety leadership role for advancing OCS aviation safety;
  - b. Promote efficient aviation policy and aviation management processes;
  - c. Provide guidance for aviation programmatic and operational risk management.
  - d. Promote an effective aviation training program for management and aviation users;

- e. Provide aircraft acquisition support as specified by management objectives.
- f. Lead aviation safety assurance and promotion programs.
- g. Promote aviation safety awareness among aviation users and their supervisors.
- **C. Authorities and References.** The directives listed below are adopted as policy and must be made available to all BSEE employees involved in aviation activities.

#### 1. Authorities.

- a. **Title 14 CFR 91, 125, and 135.** The Federal Aviation Regulations (FAR) regulations are the basic guide for piloting, aircraft operations, and airspace within the United States.
- b. **Departmental of Interior Manual** (<u>DM) Parts 350-353</u> establish mandatory responsibilities, policies, and procedures for the overall management and operations of aviation resources within DOI.
- c. **Bureau of Safety and Environmental Enforcement, DOI Manual <u>119 DM 4</u>** Establishes that the BSEE Chief, Office of Offshore Regulatory Programs is responsible to provide oversight of Bureau aviation management.
- d. **Office of Aviation Services Operational Procedures Memoranda** (OPMs)
  Published under the issuing authority of the OAS Director OPMs are interim directives used to disseminate timely information and procedures.
- e. **Office of Management and Budget Circulars** A-76, A-123, A-126. Published under the issuing authority of the OMB the Circulars provide instructions or information to Federal agencies.
- f. **BSEE Manual Chapter on National Aviation Management Program.** This Manual Chapter highlights high level policy and responsibilities, and most importantly establishes that the NAMP is policy within BSEE.
- g. **BSEE National Aviation Management Plan (NAMP).** The NAMP describes intent, policy, authority, objectives, roles and responsibilities, and procedures for the management and implementation of a comprehensive bureau-wide aviation management program.

#### 2 DOI References.

- a. **DOI or Interagency Handbooks.** DOI <u>Handbooks</u> provide detailed procedures and requirements of policy established in the applicable chapter of the DM.
  - i. DOI publications are available at https://www.doi.gov/elips/browse

- ii. DOI aviation publications are available at <a href="https://www.doi.gov/aviation/library/">https://www.doi.gov/aviation/library/</a>
- b. **DOI Information Bulletin (IB).** Announcements and information of general interest are published as an IB. The IBs are non- directive, bear no expiration date, and may be discarded at the discretion of the recipient. Any superseded IBs will be noted in the new release. Annually, the OAS will issue a listing of all current IBs.
- c. **DOI or Interagency Safety Alerts.** Red-bordered <u>Safety Alerts</u> are time-sensitive documents which are utilized to disseminate information of a significant nature regarding aviation safety. The three areas addressed are operations, maintenance, or publications. Safety Alerts are published on an as needed basis.
- d. **DOI or Interagency Aviation Accident Prevention Bulletins**. Green-bordered <u>Aviation Accident Prevention Bulletins</u> are used to disseminate information of a general nature regarding aircraft mishap prevention concepts, methods, procedures, and efforts. Prevention Bulletins are published on an as needed basis.
- e. **DOI or Interagency Tech Bulletins.** Technical data and recommendations regarding aircraft are published as <u>Tech Bulletins</u>.
- f. **DOI Guides.** A <u>Guide</u> communicates preferred procedures for a specific aspect of aviation operations. Within DOI Guides are not mandatory but may be adopted by the Bureau.
- 3. Collaborating Aviation Safety Organizations.
  - a. **Federal Aviation Administration FAA.** An agency of the U.S. Department of Transportation, the <u>FAA's</u> mission is to provide the safest, most efficient aerospace system worldwide. The FAA has authority to regulate and oversee all aspects of U.S. civil aviation through FAR and other aviation programs.
  - b. **National Transportation Safety Board (NTSB).** The <u>NTSB</u> is an independent federal agency charged by Congress with investigating every civil aviation accident in the U.S. and significant accidents in other modes of transportation-railroad, highway, marine and pipeline. The NTSB determines the probable cause of each accident investigated and issues safety recommendations aimed at preventing future accidents.
  - c. **Office of Management and Budget (OMB).** As the implementation and enforcement arm of Presidential policy government-wide, <u>OMB</u> carries out its mission through five critical processes including management -- oversight of agency performance, Federal procurement, financial management, and information/IT.
  - d. **Helicopter Safety Advisory Conference (HSAC<sup>9</sup>).** The <u>HSAC</u> is an organization, consisting of representatives of government agencies, oil industry, helicopter operators, and aviation specialists, with working experience in both

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<sup>&</sup>lt;sup>9</sup> The NAM is BSEE's aviation representative to all external organizations unless an alternate (e.g. Regional representative) is specifically approved by the Chief, OSIB.

domestic and international areas, in an effort to share operating experiences and increase "Safety through Cooperation". The HSAC develops Recommended Practices (HSAC RP)<sup>10</sup> to improve aviation safety in the offshore oil and gas industry.

- e. **International Civil Aviation Organization (ICAO).** The <u>ICAO</u> is an international forum organized to promote the safe and orderly development of international civil aviation worldwide. It sets standards and regulations necessary for aviation safety, security, efficiency and regularity, as well as for aviation environmental protection.
- f. **Offshore Petroleum Industry Training Organization (OPITO).** OPITO is an Industry owned not for profit organization that exists solely to service the needs of the Oil and Gas Industry. OPITO is employer led in all aspects of what it does, therefore all standards development activities are at the behest of industry employers. The standards are driven by the needs of employers to help create a safe and competent workforce.
- g. **Helicopter Association International (HAI).** <u>HAI</u> is an international association organized to advance the helicopter community by providing programs that enhance safety, encourage professionalism and economic viability.
- h. **HeliOffshore** is a global safety-focused organization formed by major offshore helicopter transportation providers. Their objective is to develop, share and apply best practices, create and use advanced technology, and advocate for harmonized flight standards.
- i. **American Petroleum Institute (API).** The <u>API</u> is the only national trade association that represents all aspects of America's oil and natural gas industry.
- j. **U.S. Coast Guard (USCG).** The <u>USCG</u> is one of the five armed forces of the United States and the only military organization within the Department of Homeland Security. BSEE partners with the USCG in the oversight of the offshore oil and gas industry, with BSEE responsible for fixed offshore facilities and the Coast Guard responsible for floating facilities.
- **D.** National Aviation Management Plan Revision Schedule. The NAMP will be formally reviewed and approved by the Chief, Office of Offshore Regulatory Programs (OORP) at a minimum of every three years. The BSEE National Aviation Manager (NAM) will review the NAMP annually and is authorized to make interim revisions as required. The Plan will be issued annually (with interim revisions as necessary) in accordance with OPM 6.

## E. BSEE Organizational Requirements.

**1. Region Aviation Management Plan (RAMP).** Each BSEE Region must, to the degree dictated by the level of their aviation program, prepare and maintain a RAMP. The

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<sup>&</sup>lt;sup>10</sup> At present BSEE recognizes the value of HSAC RPs, but has not <u>officially</u> adopted any HSAC RPs

RAMPs will be based on the NAMP with additions/clarifications as necessary to identify Regional-specific issues and policies. The RAMP does not need to be any more complex than necessary to ensure safe, efficient and effective aviation operations and include at a minimum the elements addressed in Appendix 1 of OPM 6.

The RAM will review the RAMP annually and is authorized to make interim revisions as required. Following any review (annual or triennial) the RAM will provide a copy of the RAMP to the NAM.

The RAMP shall be formally reviewed by BSEE aviation managers (RAM and NAM,) and approved by the RD at a minimum of every three years. The RAMP shall be no less restrictive than the NAMP.

- **2 Project Aviation Safety Plans (PASP)**. A PASP must be developed for all special use missions <sup>1112</sup> unless the elements of a PASP are properly addressed in the NAMP and/or RAMP. Examples of special use missions that BSEE conducts are:
  - Reconnaissance.
  - b. Low Level (flights below 500' above the surface).
  - c. Vessel landings.
  - d. Mountainous terrain<sup>13</sup>.

It is important to understand that a routine **point-to-point flight becomes a special use mission**, with all of the corresponding requirements:

- a. When you divert to conduct an oil spill/sheen reconnaissance or,
- b. When you divert to land on a vessel for a no notice inspection or,
- c. When flying low level (below 500' AGL) or,
- d. When flying in designated mountainous areas.

General guidance for project aviation safety planning:

- e. Repeated flights of the same nature may be conducted using the same PASP,
- f. PASPs should describe in enough detail the mission, risks<sup>14</sup>, and mitigations in place to safely, efficiently, and effectively accomplish the mission but not be more complex than

<sup>&</sup>lt;sup>11</sup> See 350 DM 1 for the definition of a special use mission.

<sup>&</sup>lt;sup>12</sup> See OPM 29 for examples, policies, and pilot qualifications / evaluation requirements for special use missions.

<sup>&</sup>lt;sup>13</sup> BSEE's Alaska and Pacific Regions are likely to fly in designated mountainous terrain.

<sup>&</sup>lt;sup>14</sup> See Appendix G.3 for a Risk Assessment designed for use by BSEE when time is limited or when a change in mission is required.

necessary,

- g. PASPs must be updated when significant changes occur (e.g., weather, crew, mission, aircraft type, etc.)
- h. PASPs will at a minimum include the elements listed in OPM-6 Appendix 2 and Section 8 of this NAMP.
- **3 BSEE Aviation Standard Operating Procedures (SOPs).** The appendices listed below have been developed to provide aviation management and operation standardization within BSEE and constitute current policy.
  - a. **Authorization for Use of BSEE Contract Aircraft.** Appendix A.1 of this document provides specific guidance on the policy, requirements, and procedure necessary to gain advanced authorization for all Federal and BSEE employees including Senior Executive Branch Officials, Senior Federal Officials, Military Officials, and non-Federal visitors traveling offshore on BSEE contract aircraft.
  - b. **Aviation Safety Communiqué** (**SAFECOM**). Appendix B.1 of this document provides specific guidance on the use of SAFECOMs to report any condition, observation, act, maintenance problem, or circumstance with personnel or the aircraft that has the potential to cause an aviation-related mishap. NOTE SAFECOMs may also be used to identify accident prevention or other commendable actions.
  - c. **Helicopter Underwater Egress Training (HUET).** Appendix C.1 details BSEE's HUET program and provides national-level guidance to ensure consistent implementation by BSEE personnel and visitors flying on BSEE contract aircraft. Additionally, Appendix C clarifies BSEE policy on minimum training requirements for warm and cold water HUET training.
  - d. **Interagency Aviation Training (IAT) Program.** Appendix C.3 of this document addresses BSEE's IAT Program requirements in accordance with DOI policy for aviation training found in <u>OPM 04</u>.

13

## Section 2. Aviation Administration

#### A. Contracts(non-fleet).

- **1. General.** The Department's Interior Business Center (IBC), Acquisition Services Directorate Boise Branch (<u>AQD</u>) is responsible for the centralized contracting of aircraft and related aviation services that support DOI agency program.
- **2. Contract Administration.** The administration of BSEE's exclusive use aviation contracts is a joint responsibility of AQD and BSEE with ultimate responsibility and authority vested in the AQD Contracting Officer. Specific administrative responsibilities are contained in 353 DM1.
  - a. **Contracting Officer (CO).** The CO has the authority to enter into, administer, and/or terminate contracts and is responsible for all contractual actions including contracting procedures and methods, contract legality with existing laws and regulations, and proper contract administration. The CO may delegate certain contract inspection and administration functions however, the CO is the only individual authorized to modify or change a contract provision.
    - GOMR: Paula Teague (208) 433-5063, paula\_teague@ibc.doi.gov
    - POCSR: James Marvin, (208) 433-5064, james\_a\_marvin@ibc.doi.gov
    - AKOCSR: TBD
  - b. Contracting Officer's Representative (COR). The COR is a BSEE representative appointed by, and directly responsible to, the CO for ensuring compliance with the administrative provisions of the contract. Primary responsibility of the COR is monitoring contract performance, communications with the contractor in day-to-day operations, and verifying accurate completion and timely submission of invoices. The COR may recommend to the CO proposed changes and adjustments in the contract, but may not commit the Government to such changes, adjustments, or modifications. The COR is responsible for verifying the work performed upon which payment is based. For the current COR contact the RAM.
  - c. **Project Inspector (PI).** If necessary, due to distance or geographic dispersion of offshore sites, the COR may request in writing the CO appoint a PI to monitor the contract in their absence. The CO will appoint the PI in writing with copies to the Contractor and the COR. The PIs will not be delegated COR authority and must immediately bring any potentially controversial matter to the COR for action. The COR will remain the delegated Government representative directly responsible to the CO.

**Note:** RAM will provide the NAM with a current list of project inspectors.

**3.** Contracting Officer's Technical Representative (COTR). The COTR is an OAS representative appointed by, and is directly responsible to, the CO for ensuring

compliance with the technical provisions of the contract. The COTR conducts required and requested inspections, including initial inspections, and approves the contractor's aircraft, equipment, and personnel prior to, and during, contract performance. The COTR may discuss changes or modifications in equipment or other requirements of the contract and provide recommendations to the CO, but may not commit the Government to such changes, modifications, or adjustments.

- **4. Alternate (COTR) and Alternate (COR).** The Alternate COTR and Alternate COR are appointed by the CO and temporarily serve in the capacity of the COTR and COR to cover periods (generally greater than 7 continuous days) when the COTR or COR are unavailable to effectively perform his/her duties. The temporary assignment must be directed in writing by the COTR or COR with notification provided to the Contractor and the CO.
- **B.** Acquisition (fleet). Not currently applicable to BSEE.
- C. Use Reports and Payments Processes.
  - **1. Daily Flight Logs**<sup>15</sup>**.** BSEE's aviation service providers are responsible for completing a Daily Flight Log that is accurate and legible. All sections of the daily flight log should be completed. Reasons for late flight departure or early returns should be noted in the remarks section of the flight log.
    - a. Routine Signature Process.
      - 1. **Before beginning each flight**. The BSEE Mission Chief will verify the Hobbs meter reading and then initial adjacent to the pilot's Hobbs meter starting entry on the flight log.

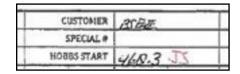


Figure 1. Initialing the starting Hobbs meter reading.

- 2. **After terminating each flight**. The Mission Chief, or the senior BSEE inspector on board, will:
  - i. Verify that the pilot's ending Hobbs meter entry matches the Hobbs meter reading in the aircraft and then will initial adjacent to the ending Hobbs meter entry in the flight log.

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<sup>&</sup>lt;sup>15</sup> BSEE Region's will add to these minimum requirements as needed.

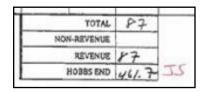


Figure 2. Initialing the ending Hobbs meter reading.

- ii. Verify any codes for the day and then draw a line horizontally below the last entry to prevent any additional entries from being made.
- iii. After verifying all information is accurate, will sign in the remarks column next to the last line.

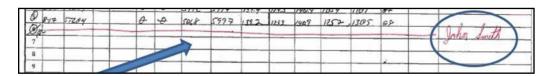


Figure 3. Lining through and signing below the last entry.

- iv. Obtain a copy of the flight log immediately upon signature, or create an independent record, and deliver this to the BSEE operations assistant for record and review purposes.
- 3. **Conflict Resolution**. If there are any questions or conflicts about how a flight should be coded the BSEE employee will not sign the flight log and will notify their supervisor or aviation project inspector immediately upon return to the office.
- b. Aircraft returns for maintenance with no passengers.
  - 1. Procedures for documenting the flight prior to the aircraft returning for maintenance will be in accordance with paragraph C. 1. a. 1. Above.
  - 2. BSEE employees will **NOT** initial the ending Hobbs reading or sign the form unless they are present during the flight.
- c. Offshore replacement aircraft.
  - 1. If an employee is picked up offshore by a replacement aircraft that already has a BSEE employee on board then flight time verification is the responsibility of the employee already on the aircraft.
  - 2. If an employee is picked up offshore by a replacement aircraft that is not already carrying another BSEE employee, then they will treat it as a new flight and will comply with the flight time verification procedures in paragraph C. 1.a. 1. Above.

**NOTE:** If the pilot uses the Hobbs meter reading from the beginning of the flight rather than from when the BSEE employee is picked up the BSEE employee will **NOT** initial the Hobbs meter reading since BSEE is not responsible to pay for that leg of the flight.

- d. Flights to take BSEE employees offshore for an overnight inspection and which return without passengers.
  - 1. If BSEE inspectors will be remaining overnight and the aircraft will return without the inspectors, the Hobbs meter reading for the initial (outbound) flight must still be initialed in accordance with the procedures in paragraph C. 1. a. 1. above.
  - 2. The Mission Chief will draw a horizontal line below the last leg of the flight they were on and write "Overnight" under their signature, but they will **NOT** initial the Hobbs meter reading.

4	377	STERY	8	A	5112	5997	138.4	1793	190.9	1054	(10)	97		
6	8-17	57284	0	4		5997						20	1	1 11
0	-													John South
7	-			-	-		1	_	1_				1	Overnight
8	-	-	-	+	1	1		-	-					

Figure 4. Documenting an overnight flight.

- 3. On a flight where the inspectors remain overnight and no one is picked up for the return flight (solo pilot flight) an additional signature is needed.
  - i. If another BSEE inspector is available to sign for the flight upon return, that inspector may do so.

<u> </u>	674	27284	- 0	\$	2078	2777	132.2	/253	1409	1257	1305	63	Oaks Little
7 8 9	B-17	KHUM	0	0	5060	5997	139.2	1293	140,9	13/6	1410	60	South Market
10													Dan Saconson digray
11													
12											1	1	

Figure 5. Third party verification of flight time.

- ii. If no BSEE inspector is available to sign for the flight upon return to base the pilot must scan and email the flight log to the inspector's supervisor or the District flight coordinator for signature.
- iii. The supervisor or District flight coordinator will **NOT** initial next to the Hobbs meter end reading since they are not able to verify the Hobbs meter reading.
- iv. The supervisor or District flight coordinator will review the flight time for the return leg and if it seems appropriate will draw a horizontal line below the

last entry and then sign and date to the right of the line.

v. If the flight time for the return flight seems to be too much of a deviation from the outbound flight the supervisor or District flight coordinator will contact the Contracting Officer's Representative (COR) or the Regional Aviation Manager.

#### e. Mission Codes.

- 1. BSEE personnel initialing Hobbs meter readings and signing for completed flights must verify that the correct mission code(s) are on the flight log because they are used to determine flight time (FT) and availability (AV) costs.
- 2. BSEE employees don't need to memorize mission codes, but Mission Chiefs should be familiar with them (see figure 1 below).
- 3. The pilot should always know the correct code but if BSEE personnel suspect that the code is not correct they should ask the pilot to change it or do not sign it.

MISSION CODE	USE_DESCRIPTION
160	FLIGHT (FOR FT AND AV)
EM	EARLY RETURN DUE TO MECHANICAL PROBLEMS/MAINTENANCE
LM	LATE START DUE TO AIRCRAFT MECHANICAL PROBLEMS
LP	LATE START - WAITING ON REPLACEMENT PILOT
EX	EARLY RETURN DUE TO BAD WEATHER
LX	LATE START DUE TO BAD WEATHER
LO	LATE START - OFFICE MEETING/TRAINING
EO	EARLY RETURN - OFFICE MEETING/TRAINING
ROP	REMAINED ON PLATFORM
NM	NO FLIGHT DUE TO AIRCRAFT MAINTENANCE
NP	NO FLIGHT - PILOT UNAVAILABLE
NX	NO FLYING DUE TO BAD WEATHER
NI	NO FLIGHT - NO BSEE PERSONNEL AVAILABLE TO FLY - AVAILABILITY PAID
AO	NO FLIGHT DUE TO OFFICE MEETING/TRAINING
WK	WEEKEND - NO USE - AVAILABILITY PAID
HL	HOLIDAY - NO USE - AVAILABILITY PAID - ONLY FOR 7-day AIRCRAFT
AC	CONTRACTOR REQUESTS AIRCRAFT RELEASE ON REGULAR WORKDAY DUE TO EMERGENCY (HURRICANE, ETC.)
AR	NO AVAILABILITY PAID - AIRCRAFT RELEASED (PAY ITEM CODE IS "RE")
4A	ONSHORE INSPECTION LANDING AT UNDESIGNATED HELIPORTS
9P	HELICOPTER GOING FROM POINT TO POINT ON LAND
9X	ONSHORE NAVIGATION - COULD NOT REACH OFFSHORE

should be noted under Remarks under the Pay Item Code section of FBMS

Figure 6. Mission Code Chart.

f. Flight Verification Training. Regions will provide training/guidance to all inspectors on the flight verification and documentation procedures in this Plan. Training will include:

Note: Customs Charges will be coded as Pay Item Code = SC, Mission Code will be 99G, and

- 1. How to determine that hours flown are accurate,
- 2. How and when to initial/sign the flight log,

- 3. When to not sign the flight log, when to notify their supervisor or the District flight coordinator,
- 4. When to contact the Contracting Officer's Representative (COR) or the Regional Aviation Manager.
- g. The COR will review these procedures with the aviation service provider.
- **2.** Cross-Servicing Agreements. All DOI AQD contract aviation services procured by BSEE will be funded via a cross-servicing agreement. The cross-servicing agreement is initiated with a requisition that is routed directly to AQD, bypassing the BSEE contracting shop. The traditional Interagency Agreement (IAA) is no longer used as of 2018. A requisition approval form may be required as an attachment to the cross-servicing agreement requisition.
- **3.** Aviation Information Reporting Support (AIRS) is a web-based system used for generating and processing Aircraft Use Reports (AURs). The aviation contractor is responsible for preparing and submitting the electronic AURs in AIRS for DOI aviation service contracts.
- **4. Internet Payment Platform (IPP).** The IPP is a comprehensive electronic invoicing and payment information service made available to all Federal agencies and their suppliers by the U.S. Department of the Treasury's Financial Management Service. IPP centralizes transaction processing in the order-to-payment notification cycle, including purchase orders, invoices and payments, in a Web-based portal (<a href="https://www.ipp.gov/">https://www.ipp.gov/</a>).
- **D. Record Keeping Requirements.** The requirement for monthly usage reports shall be written into exclusive use helicopter contracts as they are being negotiated. If the report requirement is not in the contract the vendor should be requested to prepare and submit to the BSEE RAM and NAM a monthly report that summarizes, by month and total, the following data for the current and prior eleven months:
  - 1. Number of flights
  - 2. Number of flight hours
  - 3. Number of passengers flown
  - 4. Average occupancy utilization (# of passengers flown divided by # of seats available)
  - 5. Percent Payload utilized
  - 6. Summary of maintenance issues and status of corrective actions
  - 7. U.S. Customs Flights completed
  - 8. Company reports that detail aviation safety-related occurrences, maintenance deficiencies, damage, injuries, etc.

## E. Administration Requirements.

1. Use of Government Aircraft. Government aircraft are those which are under the operational control of the Government for the conduct of official business, regardless of

whether it is owned, contracted, rented, or chartered. Such aircraft may be used only for official purposes. Refer to <a href="OPM-07">OPM-07</a> Improving the Management and Use of Government Aircraft for additional information.

2. Senior Executive Branch and Senior Federal Officials, and Non-Federal Visitors<sup>16</sup>. OMB Circular A-126 requires all travel on government aircraft must have advanced authorization. All Senior Executive Branch Officials, Senior Federal Officials, Military Officials, and non-Federal visitors traveling offshore on government aircraft must be approved by the DOI's Solicitor or Deputy Solicitor, Division of General Law (SOL) in advance of the planned offshore travel.

The BSEE National Aviation Manager will coordinate the review and approval process for Senior Executive Branch, Senior Federal Officials, and non-Federal visitors traveling on government aircraft.

See Appendix A.1 for detailed policy and procedures.

<sup>&</sup>lt;sup>16</sup> Refer to Appendices A.1, A.2, and OPM 7 series for additional information

## **Section 3. Aviation Safety**

Aviation programs and the operation of aircraft within the BSEE are a highly visible activity, regularly scrutinized by the DOI, the public, and executive and legislative interests. The BSEE Aviation Safety Program has been developed and adapted to serve BSEE's unique mission and operating environment. BSEE's use of aviation complies with, and often exceeds, the requirements established in DOI policy.

**A. Policy.** BSEE is committed to promoting offshore safety at all levels, at all times. Safety is the first priority and leadership at all levels must foster a <u>BSEE safety culture</u> that encourages employees to communicate unsafe conditions, policies or acts that could lead to aviation incidents or accidents. Each BSEE employee and contractor involved with aviation has the responsibility to plan missions thoroughly, conduct missions with a conservative attitude, and with respect for the aircraft and the environment in which our missions operate

The BSEE NAM is the focal point for BSEE's Aviation Program and provides guidance and oversight for BSEE's Aviation Safety and Training programs. The RAM is the focal point for Regional Aviation Programs, and the District Manager (DM) is the focal point for District Aviation Programs.

- 1. BSEE Aviation Safety Management System (SMS)<sup>17</sup>. SMS is not a stand-alone safety program to be followed. Rather it is a system for organizing existing safety processes around the concept of systems safety. SMS incorporates a proactive approach using hazard identification and risk management to achieve accident prevention. BSEE's Aviation SMS is compatible with DOI policy and is constantly evolving. The BSEE Aviation Safety Program complies with OPM 6 and is organized using the SMS pillars of Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.
- **2. Safety Culture.** As part of BSEE's commitment to promoting offshore safety at all levels, at all times, BSEE's <u>Safety Culture Policy Statement</u> was vetted through industry and formally released on May 9, 2013.
  - **a.** BSEE defines safety culture as the core values and behaviors of all members of an organization that reflect a commitment to conducting business in a safe and environmentally responsible manner. The Safety Culture Policy Statement informs the offshore community of the Bureau's safety expectations but does not create any additional regulatory requirements. The non-regulatory statement defines BSEE's regulatory approach to lead the offshore oil and gas industry beyond a checklist-inspection approach toward a systemic, comprehensive approach to safety culture.
  - **b.** BSEE recognizes that the human factor is the critical element in aviation and offshore safety, and that prescriptive regulations can reduce risks, but they alone are not enough. Everyone working in the offshore industry must adhere to a set of core values that places safety above allelse. An aviation SMS is similar but distinct from BSEE's SEMS program and is addressed by the FAA in AC 120-92B.

<sup>&</sup>lt;sup>17</sup> An aviation SMS is similar but distinct from BSEE's SEMS program and is addressed by the FAA in AC 120-92B

- **c.** Safety Culture Policy Statement establishes the Bureau Director's safety expectations but does not create any additional regulatory requirements. The nine characteristics of a robust safety cultureare:
  - 1. Leadership Commitment to Safety Values and Actions. Leaders demonstrate a commitment to safety and environmental stewardship in their decisions and behaviors;
  - **2.** Hazard Identification and Risk Management. Issues potentially impacting safety and environmental stewardship are promptly identified, fully evaluated, and promptly addressed or corrected commensurate with their significance;
  - **3. Personal Accountability**. All individuals take personal responsibility for process and personal safety, as well as environmental stewardship;
  - **4. Work Processes.** The process of planning and controlling work activities is implemented so that safety and environmental stewardship are maintained while ensuring the correct equipment for the correct work;
  - **5. Continuous Improvement**. Opportunities to learn about ways to ensure safety and environmental stewardship are sought out and implemented;
  - **6. Environment for Raising Concerns**. A work environment is maintained where personnel feel free to raise safety and environmental concerns without fear of retaliation, intimidation, harassment, or discrimination;
  - **7. Effective Safety and Environmental Communication**. Communications maintain a focus on safety and environmental stewardship;
  - **8. Respectful Work Environment**. Trust and respect permeate the organization with a focus on teamwork and collaboration; and;
  - **9. Inquiring Attitude**. Individuals avoid complacency and continuously consider and review existing conditions and activities in order to identify discrepancies that might result in error or inappropriate action.

#### B. Risk Management.

1. General. Managing risks is well recognized to improve the likelihood of successful mission accomplishment and applies to all BSEE aviation missions. The risk management process is designed to manage risks to acceptable levels by the identification of hazards, the assessment of the impact of those hazards, and the mitigation of the hazards to safely accomplish the mission. The Department uses a 5- step process to describe the risk management process (below).

2. 5-Step Risk Management Process. Risks must be managed throughout the mission. It starts in the planning stage, continues to the approval and scheduling phase, is evaluated and adapted during the execution phase and is analyzed and collected as lessons learned in the post flight phase.



Figure 7. 5-Step Risk Management Process

- **a. Identify Hazards:** The first step in risk management is to identify hazards. Hazards are the potential sources of danger that could be encountered while performing a task or mission. Hazards include weather, time of flight, terrain, equipment, training, and proficiency level of personnel.
- **b.** Assess Risk Level(s): Hazard or risk assessment is part of the risk management process. Risk assessment can range from simple to complex but must be detailed. The process of assessing hazard causes personnel to analyze the degree of risk associated with each threat, and place these in perspective relative to the objectives of the mission and organization.
- **c. Develop Controls/Make Decisions:** Starting with the highest threat, identify the risk control options that reduce exposure to the threats for all of those identified in the previous steps that exceed an acceptable level of risk.
- **d. Implement Controls:** Implement the plan and ensure that the risk controls are known by all and are utilized. Ensure that people know and do what is expected of them. A high level of risk that cannot be effectively controlled should be reported to the person supervising the operation. Continually evaluate the effectiveness of the controls and ensure that the risk remains in balance with the benefits.
- e. **Supervise and Evaluate:** Document any changes to the operation, equipment, environment, and/or people and how they may affect (or how they did affect) your plan. It is important to remember that risk management is a continuous process! Adjust to changes in the situation in real time by remaining vigilant and maintaining your situation awareness to identify unexpected as well as anticipated issues. Documented after action reviews are a good way to assure that the supervision and monitoring of the mission are effective and that lessons learned are captured for the

future.

- **3. Risk Management Principles.** The following decision-making principles must be considered before and during any aviation mission is performed:
  - **a.** Accept no unnecessary risk: Unnecessary risk does not contribute to the safe accomplishment of a task or mission i.e. flying lower than necessary over a populated area, flying into clouds or fog while VFR, having a minimally qualified passenger sit in the front seat while more experienced inspectors sit in the rear seats, etc. The most logical choices for accomplishing a mission are those that meet all the mission requirements while exposing personnel and resources to the lowest possible risk.
  - **b.** Make risk decisions at the appropriate level: Making risk decisions at the appropriate level establishes clear accountability. Those accountable for the success or failure of a mission must be included in the risk decision process. Supervisors at all levels must ensure subordinates know how much risk they can accept and when they must elevate the decision to a higher level.
  - **c. Integrate risk management into planning and execution at all levels:** To effectively apply risk management, leaders at all levels must dedicate time and resources to incorporate risk management principles into the planning and execution phases of all operations. Integrating risk management into planning as early as possible provides the decision maker with the greatest opportunity to apply risk management principles.

#### 4. Levels of Managing Risks.

- **a.** Time Critical: This method is an "on-the-run" mental or verbal review of the situation using the risk management process without necessarily recording the information. The process is used to consider risk while making decisions in a time limited situation such as during the flight. Rapid risk assessment requires effective training of personnel, effective operational practices and a thorough understanding of objectives of the mission. Note that "time critical" does not mean "hasty" or "uninformed."
- **b. Deliberate:** When time permits, more deliberate and in-depth planning is possible. Before a mission begins time is often available to conduct a more systematic identification of the hazards and to develop more effective control measures. When time permits these risk management decisions should be documented and reviewed/improved following the mission.

**Strategic:** Strategic Risk management should be used in instances such as contract solicitation where new technology or major changes occur. It commonly takes more time and involves a more detailed analysis of costs and benefits. The strategic process produces a more permanent record of findings and decisions used for long term planning, organizational decision-making and as authoritative training resources.

**5. Using the5-M model to Identify Hazards**. The 5-M Model (below) provides a basic framework for analyzing systems and determining the relationships between composite elements that work together to perform the mission. The 5-M's are: Man (personnel and human factors), Media (environment), Machine, Management, and Mission. Man, Media and Machine interact to produce a successful Mission or, sometimes, an unsuccessful one.

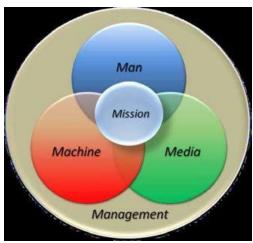


Figure 8. 5M model

The critical element is Management because it defines how the other elements interact. Management provides the procedures and rules governing the interactions between the various elements. See Air Force Pamphlet 90-803 for a full discussion of the 5-Ms.

In simple terms these 5 areas are where you look for hazards as you do your risk assessment before the mission. As the mission progresses, participants and supervisors continue to look for changes in these 5 areas and modify their mitigations as appropriate. After the mission at the AAR you review the effectiveness of the control measures against the 5 Ms.

- **6. Risk Assessment Tools.** The second step of risk management is assessment of the threats/hazards. There are several tools that may be used to document the hazards and to determine that level of risk involved in the operation. number of risk assessment tools can be found in the <a href="NWCG Standards for Helicopter Operations">NWCG Standards for Helicopter Operations</a> and in <a href="Air Force Pamphlet">Air Force Pamphlet</a> 90-803. Two tools that should be used at the Deliberate and Strategic levels of risk management are the Risk Assessment Matrix (Appendix G.1) and the Risk Assessment Worksheet (Appendix G.2).
- **7. Risk Management Summary**. All employees are responsible for understanding and managing the risks in aviation operations. It is particularly important for managers and supervisors to consider these three questions
  - **a.** Do you know what could go wrong? (Hazard Identification)
  - **b.** Do you know what systems BSEE has in place to prevent this from happening? (Risk Controls)

**c.** Do you have the information and resources to ensure that the systems are working effectively? (Feedback/Key Performance Indicators)

# Remember, risk management procedures are not fully effective without application, oversight, and enforcement.

#### C. Promotion

**1. Aviation Training.** BSEE's aviation training program is documented in detail in Section 5 (Aviation Training) and in Appendices C.3 (HUET, C.1 (IAT) and Section 3. F.4. a. 5. (CA-EBS).

## 2. Aviation Safety Communiqué – SAFECOM.

- **a.** The SAFECOM is DOI's voluntary safety reporting and feedback system. Department policy requires that SAFECOMs be used for accident prevention purposes only.
- **b.** All personnel involved in BSEE aviation activities are responsible for identifying hazards and, to the degree possible, eliminating or reducing the associated risks. In all cases, they are expected to report unsafe working conditions to their supervisor and to BSEE management. Personnel who observe what they consider to be an unsafe act or condition are encouraged to submit a SAFECOM report. Personnel in doubt about completing a SAFECOM or who need assistance should contact their Regional Aviation Manager or the NAM.
- **c.** When an emergency is encountered, the pilot shall take appropriate action to ensure safety of flight. These situations shall be reported by the pilot to the FAA (if required) and the pilot's management or government supervisor. The emergency will be documented electronically on a DOI SAFECOM (OAS-34 / FS 5700-14) at www.safecom.gov.
- **d.** All SAFECOMs should be submitted the day of the event, but no later than five days after the event.
- **e.** For a detailed discussion of the SAFECOM system see Appendix B.1.
- **3.** Aviation Awards. Aviation awards are an integral component of BSEE's aviation program and support our Safety Culture by recognizing exceptional acts or service in support of aviation safety and aircraft accident prevention.
  - **a.** Specific awards available to BSEE personnel, organizational units, and our aviation service providers include:
    - 1. DOI Airwards
    - **2.** DOI Award for In-Flight Action

- **3.** DOI Award for Significant Contribution to Aviation Safety.
- **4.** Secretary's Award for Outstanding Contribution to Aviation Safety.
- **b.** General guidelines and procedures for the submission of aviation awards are described in 352 DM 4.
- **c.** Aviation award recommendations within BSEE should be submitted through the RAM to the NAM. The NAM:
  - 1. Reviews the award recommendation against the criteria of 352 DM 4.
  - **2.** Reviews the associated SAFECOM (if applicable).
  - **3.** Coordinates with the RAM, District Manager, and aviation service provider to validate the actions of the recipient.
  - **4.** Complies with the requirements of <u>352 DM 4</u> for OAS Aviation Safety Manager and OAS Regional Director review/approval.
  - **5.** Provides award nomination and citation to BSEE EAC member for review/approval (as required).
  - **6.** Upon approval NAM coordinates with the RAM for presentation of the award.

Note: Every effort should be made to have aviation awards presented by a senior BSEE leader, preferably by the BSEE Director or Regional Director, at a large gathering of BSEE inspectors (i.e. National Inspector's Meeting). The aviation service provider should be present as well.

#### **d.** The RAM:

- **1.** Reviews SAFECOMs and other sources of information against the criteria of 352 DM 4 to identify events and actions worthy of recognition using an aviation award.
- **2.** Coordinates with the District Manager and the aviation service provider to validate the actions of the recipient.
- **3.** Submits award recommendations to the NAM.
- **4.** Upon approval coordinates for presentation of the award with the NAM and the aviation service provider.
- **5.** Notifies the contracting officer if the award is being presented to the aviation service provider.

- **4. Aviation Safety Meeting(s).** Each Region will hold a monthly aviation safety meeting that focuses on aviation safety issues and education. The RAM shall:
  - **a.** Organize, conduct, and record minutes of each aviation safety meeting;
  - **b.** Invite meeting participants to include Region aviation users and their supervisors and managers, representatives of the Region's aviation vendor, and NAM; and,
  - **c.** Prepare and circulate aviation safety meeting minutes<sup>18</sup> to all participants for review and comment. A copy of the safety meeting minutes will be provided to the NAM within 7 days of the safety meeting.

#### D. Assurance.

### 1. Aviation Mishap Response Planning.

- **a. Regional Directors** will ensure that an Aircraft Mishap Response Plan is developed for their Region that is in compliance with <u>352 DM 3</u> and the Interagency Aviation Mishap Response Guide and Checklist or other approved guide. Refer to Appendix F.1 for additional information.
- **b.** Regional Aviation Plans will address the evacuation of sick or injured personnel.
- **c. RAMs** will ensure that Regional and District level Aircraft Mishap Response Plans:
  - 1. Outline appropriate responses to a loss of flight following, an aircraft incident or accident;
  - **2.** Address initiation of Search and Rescue (SAR) operations, fire and medical response;
  - **3.** Provide procedures for the timely notification of BSEE's Chain of Command and OAS;
  - **4.** Are reviewed and updated a minimum of annually;
  - **5.** Are tested annually by conducting either a telephonic notification drill or an Aviation Incident Response Exercise (AIRE) (Appendix F.2).

NOTE: The RAM will notify the NAM 30 days prior to conducting a telephonic drill or AIRE to allow the NAM to participate (if able) and will provide the NAM with a written summary of the drill/AIRE within 30 days of the exercise.

**6.** Will be included in the RAMP and will be provided to the NAM annually.

28

<sup>&</sup>lt;sup>18</sup> See Appendix H.2 for an example of Safety Meeting Minutes.

## 2. Aviation Mishap Reporting.

- **a.** Aviation Mishap Reporting. Any BSEE flight<sup>19</sup> that results in damage to the aircraft or injury to any person, <u>no matter how slight</u>, must be reported immediately using the following sequence. An emergency contact checklist that should be tailored by each Region and District is provided in Appendix F.1.
  - 1. BSEE NAM at (907) 334-5278 or (c) (571) 585-4770. If the NAM cannot be reached call;
  - 2. OAS Safety at (208) 433-5071 / 5072 / 5073. If OAS cannot be reached call;
  - 3. DOI Operations Center at (888) 464-7427 (888-4MISHAP).

**NOTE** – The NTSB uses the definition of operational control in 14 CFR 1.1 to determine which organization is responsible for an aircraft accident<sup>20</sup>.

- **b.** Overdue or Missing Aircraft. If an aircraft is overdue or missing comply with the procedures in your Regional Aviation Mishap Response Plan. It is critical that the response plan is implemented, followed and documented throughout the duration of the event.
  - 1. An aircraft is considered "overdue" when it fails to arrive within 30 minutes past the estimated time of arrival (ETA) and cannot be located.
  - 2. An aircraft is considered "missing" when its fuel duration has been exceeded and it cannot be located, or if it has been reported as "overdue" to the FAA and the FAA has completed an administrative search for the aircraft without success.

Notifying the NAM or OAS and submitting a SAFECOM are required but they do not replace the requirement for initiating a DI-134 "Report of Accident/Incident," as required in 485 DM 7. The Aviation Service Provider is required to notify the NTSB when an "Aircraft Accident" or NTSB reportable "Incident" occurs.

**Note:** DOI prefers that OAS is notified first and that they handle communications with the NTSB. Aviation Service Providers should be advised of this during the initial contract pre-work meeting and periodically thereafter by the RAM and/or the COR.

<sup>20</sup> 14 CFR 1.1 states "Operational Control, with respect to a flight, means the exercise of authority over initiating, conducting or terminating a flight." Therefore, routine OCS flights where BSEE contracts for the aircraft and directs the initiation, conduct, and termination of the flight are considered to be under BSEE's operational control. BSEE could also be considered to have operational control when BSEE personnel are on a BOEM contracted flight and the BSEE personnel make the call on when to takeoff, where/how to fly, or when/where to land.

<sup>&</sup>lt;sup>19</sup> The term "BSEE flight" refers to flights where BSEE exercises "operational control" as defined by 14 CFR 1.1 as well as mission flights conducted by other organizations where BSEE employees are passengers.

## 3. Aviation Incident Response Exercise (AIRE) Program.

- a. BSEE Regions and Districts will establish and test procedures for responding to aviation mishaps. Such procedures will establish which positions are responsible for what actions, who is to be notified in what order, what information may be shared with whom, and what information may not be released.
- b. Testing of Regional and District procedures shall be conducted at a minimum of annually and should use the procedures for an Aviation Incident Response Exercise (AIRE) as described in Appendix F.2.
- c. Regional and District procedures shall use the Interagency Aviation Mishap Response Guide and Checklist in the development of their aviation mishap response plan (See Appendix F.1).
- **E. Documentation Requirements**. The RAM will provide a summary of any Aviation Incident Response Exercise to the NAM within 7 days after its completion and will include
  - 1. Scenario.
  - 2. Unit pre-briefing.
  - 3. Conduct of the drill.
  - 4. After action review and lessons learned.
  - 5. Participants.

## F. Personal Protective Equipment.

**1. General.** Aviation Life Support Equipment (ALSE) is required for all BSEE flights. If the required ALSE is not available for an individual the individual will not be permitted to fly. If required aircraft mounted ALSE is not available, the aircraft is considered unavailable and will not be used.

The minimum ALSE that must be worn is described in paragraph 4 below. For more information see BSEE policy 659.01-DS-G, <u>351 DM 1.7</u> and the <u>Interagency ALSE</u> <u>Handbook</u>. Any questions concerning ALSE requirements and procedures should be directed to the RAM or the NAM.

## 2. Responsibilities.

- a. The BSEE Director has approval authority for all ALSE waivers.
- b. Regional Directors have the overall responsibility for their Region's ALSE program.
- c. RAMs implement Region aviation policy and provide oversight of the ALSE program.
- d. District Managers and the Alaska Regional Supervisor/FieldOperations will ensure that:

- 1. All personnel (BSEE and non-BSEE) flying on BSEE contracted aircraft are provided with appropriate and serviceable ALSE.
- 2. The District ALSE program is staffed, equipped, and funded to meet mission requirements.
- 3. All ALSE is inspected and maintain in accordance with DOI and manufacturer guidance, but no less than every 180 days.
- 4. ALSE inspections are documented and records of those inspections provided to the RAM and NAM on an annual basis<sup>21</sup>.
- 5. Personnel who inspect and maintain ALSE are properly trained and designated in writing. Copies of ALSE technician designations will be provided to the NAM annually.
- e. Mission Chiefs are responsible for ensuring all personnel engaged in BSEE aviation activities wear appropriate and serviceable ALSE based upon Departmental and bureau requirements. Non-BSEE fliers may be required by their Agency (i.e. USCG) to wear more restrictive ALSE.
- f. ALSE users are responsible to:
  - 1. Inspect the ALSE they are provided for condition and serviceability before and after each flight and;
  - 2. Report any discrepancies to the Mission Chief or District Manager, and to the ALSE technician.
- g. ALSE Technician BSEE defines an ALSE Technician as a person who has completed hands-on training and is authorized to disassemble, inspect, repair, and reassemble flight helmets and maintain other BSEE ALSE.

Initial ALSE technician training will consist of hands on inspection and repair of equipment being used and will be conducted by an approved source (e.g. Gentex, Gibson and Barnes, Switlik, Aqualung, military or other organizations that regularly inspect and repair flight helmets (e.g. BLM).

An ALSE technician may train additional personnel. Request for approval will be routed through the individual's manager and RAM to the Regional Director for approval.

ALSE technicians are responsible to:

1. Attain and maintain the training and qualification required by DOI to inspect

31

<sup>&</sup>lt;sup>21</sup> Annual requirements may be documented in the RAMP

and repair flight helmets.

- 2. Inspect all flight helmets as required, but no less than every 180 days.
- 3. Repair and maintain flight helmets in accordance with DOI and manufacturer guidance.
- 4. Track flight helmet inspections and provide an annual report to the District Manager, RAM, and NAM.
- 5. Provide annual training to District personnel on user-level care, inspection, and maintenance of all ALSE equipment.
- **3. Aircraft**. Aircraft contracted by the DOI and used to transport BSEE personnel, and/or cargo from various onshore locations to and from offshore facilities, vessels, and barges engaged in OCS oil and gas activities are required meet the technical specifications and general requirements addressed in their aviation services contracts including PPE and ALSE.
- **4. Aviation Life Support Equipment.** ALSE listed in this NAMP and the Interagency ALSE Handbook may require fitting, periodic inspections, testing, and scheduled replacement. Users must ensure that equipment is maintained in serviceable condition and in accordance with the manufacturer's guidance.
  - a. ALSE required for Point-to-Point flights (e.g. routine OCS missions or flights from a base airport to an onshore heliport/airport). Routine flights between shore-based airports and offshore helidecks or onshore heliports/airports, where the route of flight is determined only by the pilot based on navigational requirements, are defined by DOI as point- to-point flights (350 DM 1) and have the following ALSE requirements:

**NOTE:** If, during the conduct of a point-to-point flight a reconnaissance is conducted (e.g. to observe an oil sheen), that portion of the flight is considered "special use<sup>22</sup>" and the ALSE required by paragraph 3. F. 4. b. of this NAMP must be worn unless a waiver has previously been granted by the BSEE Director.

## 1. Flight Helmets.

a. All passengers on BSEE helicopters, and all BSEE employees who fly on other agency or industry helicopters, will wear a serviceable SPH-5 or HGU-56/P flight helmet<sup>23</sup>. For detailed information see the <u>Interagency ALSE Handbook</u> and the <u>DOI Flight Helmet User's Guide</u> (Appendix D.1).

<sup>23</sup> BSEE recommends the Gentex SPH-5 flight helmet for safety, standardization, and cost reasons. To use a flight helmet other than the SPH-5 that helmet must meet all requirements of the Interagency ALSE Handbook and the DOI/USFS Aviation Helmet Standard. A waiver in accordance with the Interagency ALSE Handbook and this NAMP must be approved by the BSEE Director.

<sup>&</sup>lt;sup>22</sup> See current 350 DM 1 App 2, 351 DM 1.7, OPM 29, and Interagency ALSE Handbook.

- b. Before and after each flight the user will inspect their flight helmet for condition and serviceability.
- c. Every 180 days an ALSE Technician will inspect all flight helmets in accordance with DOI and manufacturer guidance.
- d. Reflective tape may be attached to the helmet to enhance visibility during a search and rescue operation. Location and pattern of reflective tape will be standardized by each Region in their RAMP.
- e. Helmets shall be equipped with a clean, serviceable visor.
- f. The visor is required to be worn in the down position unless the visor interferes with required prescription eyewear.
- g. Helmets will be cleaned and disinfected in accordance with the procedures in the manufacturer's guidance and Appendix E.2

### 2. Personal Flotation Device (PFD).

- a. PFDs will be worn on all over water flights.
- b. PFDs must use a compressed gas cartridge located in the inflation chamber
- c. Inflatable PFDs are specifically required because they do not restrict the occupant's movement or egress.
- d. PFDs shall have two separate inflation cells.
- e. The instructions for activating the inflation cartridge must be clearly accessible and marked.
- f. The PFD must have an oral inflation tube in the event that the cartridge(s) fail to inflate the inflation cells.
- g. Passengers must not inflate PFDs in the aircraft. Personnel wearing an inflated PFD may have trouble exiting if the aircraft is overturned or submerged.
- h. PFDs equipped with an automatic (water-activated) inflation mechanism are <u>prohibited</u>.
- i. PFDs will be compatible with Compressed Air Emergency Breathing Systems (CA-EBS).
- j. PFDs will be maintained and inspected according to manufacturer's instructions.

k. PFDs must be FAA approved per Part 135.

### 3. Hearing Protection.

- a. Hearing protection must be worn when in, or within proximity to operating aircraft.
- b. Hearing protection in the form of an approved helmet, earplugs, or earmuffs can provide users with adequate hearing protection.
- c. Use of combination or double protection (such as helmet plus earplugs) is recommended.
- d. Communications Ear Plugs (CEP) are also an approved means of providing additional hearing protection without impeding intercom communication quality.
- e. The requirement for hearing protection and hearing conservation programs is 29 CFR 1910.95, the Interagency ALSE Handbook, and this NAMP.

## 4. Undergarments.

- a. Underwear, socks, and clothing worn under the flight suit and next to the skin will provide the best protection if made of Fire Resistant (FR). Natural fibers, such as cotton, wool, or wool/cotton blend, silk, as well as fire-resistant cotton and cotton blends, are acceptable substitutes.
- b. Materials with low temperature melting characteristics, such as synthetics (nylon, dacron, polyester, and so on) and synthetic blends, are not approved.

Caution: In cold climates, cotton undergarments and socks will absorb perspiration and water, subjecting the wearer to chill, hypothermia, and frostbite.

- 5. Compressed Air Emergency Breathing Systems (CA-EBS<sup>24</sup>). The use of CA-EBS by BSEE personnel will be conducted under the following guidelines.
  - a. The **National Aviation Manager** is responsible for programmatic oversight and policy related to CA-EBS at the national-level.

### b. Regional Directors:

1. Are responsible for CA-EBS program administration, funding, maintenance, and property accountability within their Regions.

<sup>&</sup>lt;sup>24</sup> In this document Compressed Air Emergency Breathing Systems may be abbreviated as CA-EBS or simply EBS.

- 2. Will establish procedures to:
  - a. Provide CA-EBS for Regional and visiting BSEE personnel who are qualified and current in their CA-EBS training.
  - b. Ensure visiting personnel<sup>25</sup> who are not qualified with CA-EBS are still allowed to fly in Regional aircraft.
  - c. Prevent any person who is not properly trained and current from using CA-EBS.
  - d. Ensure EBS are properly maintained either by qualified:
    - 1. BSEE personnel or,
    - 2. Employees of their aviation service provider or,
    - 3. Employees of other organizations (other bureaus, the USCG, or commercial businesses)
  - e. Fund all aspects of their CA-EBS program (acquisition, storage, maintenance, training, travel, etc.).
    - 1. It is recommended that funding for EBS takes into consideration the need for enough spares to be able to rotate the EBS back to the manufacturer for required inspections.
    - 2. The number and percentage of spares to users will be reported to the RAM and NAM annually.
- 3. May grant CA-EBS equivalency to newly hired BSEE employees who are current with similar requirements from outside agencies (i.e. USCG).
  - a. Requests for CA-EBS equivalency will be routed through the employee's chain of command to the RAM and NAM for technical review and then to the Regional Director for approval.
  - b. Approval of such equivalencies will be documented in writing with copies provided to the RAM and NAM.
  - c. The period that an equivalency is valid for will not exceed 4 years and the employee will take CA-EBS refresher training during their next HUET cycle.
- c. **Regional Aviation Managers** are responsible for programmatic oversight of their Region's CA-EBS program. RAMs will:

<sup>&</sup>lt;sup>25</sup> Visiting personnel may include VIPs, HQ staff, non-Feds

- 1. Document Regional CA-EBS policies and procedures in the Regional Aviation Management Plan.
- 2. Maintain current HUET and CA-EBS training records for:
  - a. All Regional personnel qualified to use CA-EBS.
  - b. Non-Regional personnel who fly on Regional aircraft.

### 3. Provide the NAM:

- a. A record of all Regional personnel who are qualified to use CA-EBS annually.
- b. A record of visitors who were qualified and used CA-EBS annually.
- c. Documentation of all maintenance discrepancies and/or SAFECOMs related to EBS use annually. This will specifically include delays or mission cancellations related to EBS.
- d. Copies of all Regional CA-EBS policies and procedures as they occur.
- d. **District Manager / Regional Supervisor, Field Operations** (Alaska Region only):
  - 1. Will review written requests from new employees for CA-EBS equivalency. If the employee's training equals or exceeds the requirements of this NAMP, and if the training was received within the past four years, the Manager may concur and forward the request to the Regional Director for approval.
  - 2. May, on a case-by-case basis, waive the requirement in this Plan for a CA-EBS (and HUET) qualified person to sit next to an aircraft door/emergency exit. Such waivers will be documented in writing.
  - 3. If EBS is maintained by BSEE the DM/RSFO will designate in writing an individual to track EBS used by the District to ensure EBS equipment remains serviceable and inspections are conducted at the manufacturer's recommended intervals. When the EBS is maintained by the aviation service provider this is not required.
  - 4. Will ensure employees meet BSEE medical standards and have documentation from the BSEE Medical Standards Program coordinator prior to any HUET or CA-EBS training. Employees may be required to complete a Self-Declaration of Fitness by the training facility before participating in HUET or CA-EBS regardless of whether or not they covered by BSEE's Medical Standards Program.

### e. **CA-EBS Users** will:

- 1. Successfully complete and maintain currency with HUET and CA-EBS training at least once every four years.
- 2. Familiarize themselves with the procedures for the EBS in the manufacturer's user's guide.
- 3. Inspect the EBS before and after each flight using the procedures in the EBS's manufacturer's user manual.
- 4. Immediately report any deficiencies with the EBS to the pilot and their supervisor then document the discrepancies using a SAFECOM.
- 5. Notify their chain of command and the RAM when a mission is delayed or cancelled due to EBS issues.
- 6. BSEE personnel are responsible for notifying their chain of command six months in advance of when their HUET & CA-EBS training is due.
- 7. Have current medical standards clearances on file if they are enrolled in the medical standards program. Employees may be required to complete a Self-Declaration of Fitness by the training facility before participating in HUET or CA-EBS regardless of whether or not they covered by BSEE's Medical Standards Program.".
- 8. USCG personnel are required to provide and use their own (USCG) ALSE equipment to include CA-EBS.

### f. CA-EBS **Training**:

- 1. Effective October 1, 2020, all routine offshore travelers are required to take T-HUET with CA-EBS for initial and refresher training.
  - a. Personnel who have initial or refresher training due before October 1, 2020 are encouraged to take T-HUET with CA-EBS.
  - b. All routine offshore travelers must complete T-HUET with CA-EBS no later than September 30, 2023.
- 2. To be issued CA-EBS the individual must have completed, and be current, with the CA-EBS training required by this NAMP and local Regional procedures.
- 3. The Mission Chief is responsible to ensure that individuals who are issued CA-EBS are qualified and current with their CA-EBS training requirements.
- 4. BSEE personnel stationed outside of the Alaska Region will successfully complete the OPITO T-HUET with CA-EBS course initially, and every 4 years thereafter, to be qualified to use CA-EBS. Completion of all in-water exercises is

required to receive a T-HUET certificate and is a requirement for BSEE.

- 5. For operations in Alaska all personnel will comply with the requirements of this NAMP and the Alaska Regional Aviation Management Plan (RAMP).
- 6. Completion of an approved cold water HUET course is an acceptable alternative to the T-HUET course. However, completion of the T-HUET course may not be used in lieu of an approved cold water HUET course.
- 7. New BSEE employees with current CA-EBS and HUET qualifications from other sources (i.e. Coast Guard) may request equivalency through their chain of command to their Regional Director. Approval of such equivalencies will be documented in writing with copies provided to the RAM and NAM.
- 8. Travel and training costs are the responsibility of the individual's organization.

### g. CA-EBS Equipment:

- 1. BSEE has tested the Survival Egress Air (SEA) Mk1.5 and approves the use of SEA CA-EBS models Mk 1.5, LV2, 3000, and 4500 with the dial gauge and 20" hose.
- 2. Requests to use any other model of EBS will comply with the ALSE exception and waiver process in this NAMP and the ALSE Handbook.
- 3. The EBS will be carried in a pocket designed for its use that is fixed to the employee's survival vest. All EBS users must have an appropriate flight vest that is designed to mount both the personal floatation device and the EBS.
- 4. CA-EBS and related equipment (adapters, refilling equipment, vest, life preserver units, etc.) will be maintained in accordance with the equipment manufacturer's current instructions, FAA regulations, and DOI policy.

### h. CA-EBS Maintainers will:

- 1. Familiarize themselves with, and maintain the EBS in accordance with, the procedures for the EBS in the manufacturer's user's and technical guide.
- 2. Clean and disinfect<sup>26</sup> the EBS in accordance with the manufacturer's procedures after each flight.
- 3. Securely store the EBS and related equipment when not in use.
- 4. Develop a maintenance tracking system for EBS and related equipment. A copy of the EBS tracking documentation will be provided to the RAM and NAM monthly.

<sup>&</sup>lt;sup>26</sup> Procedures for disinfecting Aqualung (SEA) EBS can be found at <a href="https://capewellaerialsystems.com/wp-content/uploads/2018/12/CA\_EBS-disinfecting\_301118.pdf">https://capewellaerialsystems.com/wp-content/uploads/2018/12/CA\_EBS-disinfecting\_301118.pdf</a>

### **CA-EBS Maintenance**:

- 1. EBS will be maintained in accordance with the procedures in the manufacturer's user's and technical guides.
- 2. EBS may be maintained either by qualified BSEE personnel or under contract by employees of the aviation service provider.
  - a. To be qualified to maintain CA-EBS an individual must meet the requirements in Section 3. F. 2. g.
  - b. Repair, service, and visual inspection must not be attempted by untrained or unqualified personnel.
  - c. Regional Aviation Management Plans and aviation contracts will document whether their EBS will be maintained by BSEE personnel or by their aviation service provider.
- 3. Factory-level service for EBS must be performed as required by the manufacturer.
- b. ALSE required for Special Use Missions. Additional ALSE is required for Special Use flights<sup>27</sup> (e.g. oil spill reconnaissance, any flights below 500' above the surface, vessel landings, or flight over mountainous terrain). All BSEE flights other than routine point-to-point OCS flights are considered by the Department to be special use. All DOI policies pertaining to special use missions must be adhered to (e.g. project aviation safety planning (PASP)<sup>28</sup>, pilot and aircraft carding<sup>29</sup>, and ALSE<sup>30</sup>).

Examples of special use missions that BSEE might conduct include post-hurricane or oil spill reconnaissance<sup>31</sup>, low level<sup>32</sup>, mountainous terrain<sup>33</sup>, off-airport operations in wheeled airplanes<sup>34</sup> (Alaska), and vessel landings<sup>35</sup>.

In addition to the ALSE required for point-to-point flights (4a above), the following

<sup>&</sup>lt;sup>27</sup> See current 350 DM 1 App 2, 351 DM 1.7, OPM 29, Interagency ALSE Handbook, and Section 1.E. 2. of this NAMP.

<sup>&</sup>lt;sup>28</sup> See current https://www.doi.gov/sites/doi.gov/files/uploads/opm-06.pdf, and this NAMP.

<sup>&</sup>lt;sup>29</sup> See current OPM 29.

<sup>&</sup>lt;sup>30</sup> See current Interagency ALSE HB.

<sup>&</sup>lt;sup>31</sup> Per OPM 29 Reconnaissance flights may include but are not limited to: Aerial observation, reconnaissance, surveillance, photo flights, survey, tracking or patrol flights. BSEE missions might include post-hurricane and oil spill recons.

<sup>&</sup>lt;sup>32</sup> Per OPM 29 Low level flights are operations other than takeoff or landing where flight is conducted less than 500 feet above the surface.

<sup>&</sup>lt;sup>33</sup> Per OPM 29 Low level flights are operations other than takeoff or landing where flight is conducted less than 500 feet above the surface.

<sup>&</sup>lt;sup>34</sup> Per OPM 29 Off-Airport Operations in wheeled airplanes are take-offs or landings anywhere that is not listed in, or maintained in accordance with, an FAA Chart Supplement.

<sup>35</sup> Per OPM 29 Vessel landings involve takeoff and landing operations on vessels, drill ships, semi-submersible drilling platforms, barges, or other landing areas subject to pitch and roll of the sea.

## ALSE is required for special use flights:

## 1. Fire-Resistant (FR) Clothing<sup>36</sup>.

- a. Fire Resistant clothing protects the wearer from flash fire burns and is required to be worn on all special use flights. Fire resistant clothing currently used by BSEE inspectors is approved for aviation operations.<sup>37</sup>
- b. For optimum protection FR clothing must fit loosely, providing trapped air for insulation.
- c. Sleeves must be long enough to reach the first knuckle on the thumb before securing snugly over the flight gloves at the wrist. Shirt sleeves shall be worn down and fastened. The shirt tail must be tucked into the trousers and the trousers must cover the boot tops.
- d. Pant legs must reach the floor while standing and secure snugly over approved boots at the ankle while seated.
- e. Synthetic clothing such as polyester, nylon, etc., or blends thereof, are prohibited.
- f. Undergarments should be made of a FR or natural fiber like cotton, or wool.
- g. All garments must be clean. Fuels, grease, oils, and other combustible materials embedded in the fabric will burn at their normal flash points even though the fire-resistant clothing will not char until a higher temperature is reached.

### 2. Boots.

- a. Leather, or approved non-leather, boots<sup>38</sup> are recommended to be worn during all helicopter flights but are required for special use flights.
- b. Boot tops must extend above the ankle and must be constructed so that metal parts, such as shoestring eyes or zippers, do not contact the wearer's skin.
- c. Non- leather boots must be flight approved in accordance with U.S. Military standards for aviation use per the ALSE Handbook.
- d. Boots made of FR rubber are an acceptable substitute.

<sup>&</sup>lt;sup>36</sup> See current Interagency <u>ALSE Handbook</u>.

<sup>&</sup>lt;sup>37</sup> If BSEE uniform policies change and no longer require the routine use of FR clothing BSEE employees will still be required to wear FR clothing during special use flights.

<sup>&</sup>lt;sup>38</sup> See ALSE Handbook Chapter 2.1.B.4 and Table 3.

**3.** For flights in extreme cold weather the use of special cold weather foot gear may be approved by the BSEE Director under the waiver authority listed in the Interagency ALSE Handbook and this NAMP.

### 4. Gloves

- a. Gloves <u>should</u> be worn during all helicopter flights but <u>must</u> be worn during special use flights.
- b. Flight Gloves (type GS/FRP-2) constructed of a soft leather palm and stretchable NOMEX fabric for the back are preferred. These gloves have a long cuff extending several inches above the wrist providing total coverage when the flight suit sleeve is properly worn.
- c. All-leather gloves (without synthetic liners) or other non-synthetic gloves designed for extreme cold weather are acceptable if they provide the wearer with wrist coverage and finger dexterity.

## c. Cold Weather Clothing.

1. An anti-exposure garment must be worn in single engine aircraft and readily available to occupants of multiengine aircraft when conducting extended overwater flights<sup>39</sup> when the water temperature is colder than  $50^{\circ}F$ .<sup>40</sup>

### 2. Outer Garments.

- a. Garments worn over a FR uniform<sup>41</sup>, such as coats, bib pants, and coveralls, should also be made of FR material.
- b. Outerwear garments made from natural fibers, such as leather, cotton, wool, or wool/cotton blends, as well as from fire-resistant cotton and cotton blends, are acceptable substitutes.
- c. Materials with low temperature melting characteristics, such as synthetics (nylon, Dacron, polyester, and so on) and synthetic blends, are not approved.

## 3. Immersion Suits<sup>42</sup>.

a. For flights over open water that is colder than  $50~F^{\circ}$  personnel will wear a cold-water immersion suit approved by the Regional Director.

<sup>&</sup>lt;sup>39</sup> 14 CFR 1.1 Extended over-water operation...with respect to helicopters, an operation over water at a horizontal distance of more than 50 nautical miles from the nearest shoreline and more than 50 nautical miles from an off-shore heliport structure.

<sup>40</sup> If an anti-exposure suit is not available, the flight/mission must avoid overflying areas where the water temperature is 50 degrees C or less.

<sup>&</sup>lt;sup>41</sup> See Section 3. F. 4.b. 1 of this NAMP.

<sup>&</sup>lt;sup>42</sup> When an immersion suit is worn FR garments are not required.

*NOTE – More restrictive personal protective equipment/ALSE may be directed by the aviation service provider.* 

b. Immersion suits will be a Dry Suit type which will have waterproof feet that are integrated into the suit, and seals at the wrist and at the neck or around the face that will not allow water into the suit. The suit should also be large enough to allow multiple layers of clothing to protect the wearer from the temperature of the water being flown over.

Caution - Aircraft occupants wearing anti-exposure garments may have trouble exiting from an overturned or submerged aircraft.

## d. ALSE Exceptions and Waivers.

- **1.** Exceptions to DOI ALSE requirements are listed in the ALSE Handbook (paragraph 1.5.a.). None of these exceptions apply to the missions BSEE conducts.
- **2.** ALSE waiver requests will conform to the process defined in the ALSE Handbook (paragraph 1.5.b). Specifically, a waiver of an ALSE requirement can be authorized by the BSEE Director if it is determined that the requirement presents a concern affecting the safety or security of the employee. See Appendix E.3 for an example of an ALSE waiver.
- **3.** The BSEE Director has delegated the approval authority for ALSE waivers to the Chief, OORP.
- **4.** ALSE waiver requests will be routed through the Regional Director to the NAM for technical review and then to the Chief, OORP for approval. The ALSE waiver request will specify:
  - a. The safety or security concern,
  - b. The ALSE requirement being waived,
  - c. The risk mitigation measures taken to support a decision to grant a waiver.
  - d. The duration that the waiver is being requested for.
- **5.** The NAM will provide a copy of the waiver and any written delegation to OAS Aviation Safety and Evaluations Division and the appropriate OAS Regional Director.
- **6.** Each ALSE waiver request will be considered on its own merits on a case-by-case basis.

**G. Reporting Airspace Conflicts using the SAFECOM**. Extensive BSEE operational experience in the same geographical areas has shown that the potential for airspace conflicts while conducting BSEE missions is generally considered "Low." However, for flights in the vicinity of airports the likelihood of an airspace conflict including the risk of a mid-air collision increases due to the density of air traffic and the risk level is considered "Medium" (i.e. the probability is "seldom" but still catastrophic if it would occur; see Appendix G.1 Risk Assessment Matrix).

The primary responsibility for understanding and complying with National and International airspace procedures and reporting requirements rests with the aircraft operator. If an airspace conflict occurs the situation will be reported as necessary using either the SAFECOM system or the Aviation Mishap Reporting process described in Appendices B.1 and F.1.

# **Section 4. Aviation Operations**

## A. Special-Use.

1. **General.** Special Use Activities involve the utilization of airplanes and helicopters in flight operations which do not meet the definition of point-to-point flight<sup>43</sup> and which require special considerations due to additional equipment and/or the increased risks inherent in such operations.

BSEE contract aircraft are primarily used for the transportation of personnel from various onshore locations to and from offshore facilities engaged in OCS oil and gas activities. By definition these flights are point-to-point flights and not special use.<sup>44</sup> and must be flown in full compliance with the applicable provisions of 14 CFR.

Examples of missions that BSEE conducts that are considered special use by OPM 29 are reconnaissance flights, low-level flights, vessel landings, and flight in mountainous terrain.

NOTE: It is important to understand that a point to point flight becomes a special use mission, with all of the corresponding requirements, when a flight is diverted to conduct an oil spill/sheen reconnaissance, when the flight is conducted below 500' above the surface, if the mission operates in designated mountainous areas, or when a landing is made to a vessel.

- **a.** Reconnaissance flights include aerial observation, reconnaissance, surveillance, and photography flights.
- **b.** Low level flights are any flights, other than taking off or landing, conducted below 500 feet above the surface. With the exception of landing or taking off, operating below 500' above the surface is restricted to mission-essential flights only. Flights below 500' above the surface are considered low-level and will comply with DOI/BSEE requirements for special use activities.
- c. Vessel landings are defined as takeoff and landing operations on vessels, drill ships, semi-submersible drilling platforms, barges, or other landing areas subject to pitch and roll of the sea.
- **d.** Mountainous operations are those flights conducted within 1000 feet of terrain (horizontal or vertical) in the areas designated by the FAA as mountainous IAW 14 CFR 95 Subpart B (except for takeoff or landing).
  - 1. A mountainous terrain endorsement is **not required** for contract pilots conducting point to point flights IAW 14 CFR 135.
  - 2. No PPE required for mountainous terrain in and of itself.

<sup>&</sup>lt;sup>43</sup> See 350 DM 1.

<sup>&</sup>lt;sup>44</sup> See 350 DM 1 and OPM 29

**e.** OPM 6 requires a Project Aviation Safety Plan (PASP) be developed for all special use missions.

NOTE: A PASP is **not** required if the individual elements are addressed in the NAMP or RAMP and the requirement for a PASP is explicitly exempted.

- f. A special use missions may require additional ALSE<sup>45</sup>.
- g. A PASP requires a qualified and current Project Aviation Manager.
- h. The PASP requires a risk assessment and line manager approval **before** the mission is conducted.
- i. OAS authorization for both pilot and aircraft is required **before** special use activities are conducted.
- 2. **Public/Civil Aircraft Operations.** DOI aviation activities include both "civil" and "public" operations (<u>FAA AC 00-1.1A</u>). However, all BSEE missions are considered civil aircraft operations and shall comply with 14 CFR (Federal Aviation Regulations). BSEE's helicopter contractors are bound by their contract to conduct operations in accordance with their FAA-approved commercial operator or airline certificate specifications, unless otherwise authorized by the IBC/AQD contracting officer.
- **B.** Fixed Wing. Not Applicable. BSEE does not routinely conduct flights in fixed wing aircraft. If a special use flight is necessary, a specific PASP per OPM 6 will be developed.
- **C. Rotary Wing**. All flight(s), whether VFR or IFR, will be conducted in accordance with the applicable ceiling, visibility, and wind criteria addressed in either the BSEE aviation services contract, the vendor's Operational Manual, or when appropriate a PASP.
  - 1. **VFR** (**Visual Flight Rules**) **Operations.** VFR weather minimums will be equal or greater to the requirements in 14 CFR 91, the BSEE aviation services contract, or vendor's operations manual whichever is more restrictive. BSEE Regional Directors may publish more restrictive weather minimums in their Regional Aviation Management Plans but will first coordinate those weather minimums with the NAM and their aviation service provider.
  - 2. **IFR** (**Instrument Flight Rules**) **Operations**<sup>46</sup>. When authorized by a BSEE aviation services contract the following conditions will apply:
    - **a.** Only multiengine helicopters may be operated in Instrument Meteorological Conditions (IMC) conditions.
    - **b.** Multiengine helicopters certified for operations by a single pilot without a second-in-command may file and operate in IMC conditions on IFR flight plans through

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<sup>&</sup>lt;sup>45</sup> See OPM 29, the ALSE Handbook, and this NAMP.

<sup>&</sup>lt;sup>46</sup> All FAA and DOI regulations/policies related to IFR operations apply to BSEE.

areas of coastal fog provided the autopilot is fully operational and the weather at the planned destination is considered visual meteorological conditions (VMC) and forecast to remain VMC for estimated time of arrival (ETA) plus or minus one hour.

- **c.** Flight in visible moisture when temperatures are at or below freezing require all anti-ice and de-icing equipment to be fully functional.
- **d.** BSEE passengers must be briefed by the pilot on what they should expect from helicopter flight in the OCS airspace under IFR conditions.
- **e.** BSEE management and passengers must take into consideration that IFR flight may take more advanced notice and longer planning time and may not allow for flight plan deviation (e.g. response to requests for no-notice inspections).
- **f.** IFR flights may decrease the effective range of an aircraft due to the requirement for extra fuel needed to fly to an alternate when landing at the initial destination is not possible.
- **D.** Fleet Operations (i.e. Government owned aircraft). Not currently applicable to BSEE.
- **E. Cooperator Operations.** Use of Non-BSEE Aircraft. All BSEE employees will comply with bureau and DOI aviation policies when performing mission-related duties on board any organization's aircraft and/or aircraft operated under any other organization's operational control (i.e. BOEM or USCG aircraft). These policies include, but are not limited to: approved aircraft and pilots (by OAS carding or cooperator letter of approval), flight following, ALSE, etc., (Reference 351 DM 4.1 and 4.2).

### F. Passenger Transport.

- 1. **General.** A passenger is any person aboard an aircraft who does not perform the function of a flight crewmember<sup>47</sup> or qualified non- crewmember<sup>48</sup>. All passengers will:
  - **a.** Use appropriate personal protective equipment as required by the ALSE Handbook, the NAMP, the appropriate RAMP, and the PASP if applicable.
  - **b.** Report aviation incidents or operations deviating from policy to their supervisor and through the SAFECOM system (Appendix B.1).
  - **c.** Emphasize personal safety as well as the safety of others involved in the flight.
  - **d.** Unless prohibited by the pilot (i.e. for weight and balance reasons etc.) a BSEE

<sup>&</sup>lt;sup>47</sup> 14 CFR 1.1 – Flight crew member means a pilot, flight engineer, or flight navigator assigned to duty in an aircraft during flight time.

<sup>&</sup>lt;sup>48</sup> 49 CFR 40125 – Qualified non-crewmember means an individual, other than a member of the crew, aboard an aircraft whose presence is required to perform, or is associated with the performance of, a governmental function. Personnel on point-to-point flights (airport to helideck and back) are not required to perform, or associated with the performance of, a governmental function. They are by definition passengers.

employee will sit in the front left seat to enhance Crew Resource Management (CRM).

**e.** Passengers not qualified and current in their HUET/CA-EBS and IAT, to the extent possible, are not permitted to sit in the front passenger seat or next to the passenger compartment exits. District Managers may waive this requirement on a case-by-case basis for specific mission purposes (i.e. photography, aerial observation).

Note: The intent of this policy is to enhance crew resource management (CRM) by putting experienced and trained personnel in positions where they have the best chance to assist the pilot in safely performing his/her duties (hazard identification, warning, etc.).

- 2. **Official Passengers.** The following categories of personnel are Official Passengers:
  - **a.** Officers and employees of the Federal Government traveling on official business.
  - **b.** Members of Congress and employees of Congressional committee staffs whose work relates to DOI programs;
  - **c.** Non-Federal passengers when engaged in missions who enhance accomplishment of a DOI (including BSEE) program such as personnel of cooperating state, county or local agencies; representatives of foreign governments; and contractors' representatives to include those employed by such agencies, and private citizens. See Appendix A.2.
  - **d.** Space-available passengers are authorized and approved in accordance with OMB Circular A-126. Space-available travelers approved by the Secretary of the Interior (or designee) on a trip- by-trip basis.
- 3. **Unauthorized Passengers.** All personnel who are not official passengers shall be considered an unauthorized passenger and shall not be transported in any aircraft owned or operated by, or on behalf of, the DOI including BSEE. A person who is otherwise an official passenger could become unauthorized by performing a function for which that person is not authorized, e.g., a passenger performing pilot duties without proper authorization.
- 4. **Passenger Manifest.** The pilot-in-command must ensure that a manifest of all crewmembers and passengers has been completed. A copy of this manifest must remain at the point of initial departure. Manifest changes will be left at subsequent points of departure when practical. In those instances where multiple short flights will be made which involves frequent changes of passengers, a single manifest of all passengers involved may be left with an appropriate person to preclude unreasonable administrative burden.
- 5. Official Passengers/Cargo. Except for space-available travel, only persons and

cargo required to accomplish missions are permitted onboard BSEE exclusive use contract aircraft.

- 6. **Space-Available Travel.** Space-available travel uses aircraft capacity that would otherwise be vacant on an already-scheduled flight. At the department level it is generally limited to Federal personnel and their families in remote locations which are not reasonably accessible to regularly scheduled commercial airline service. Space-available travel using BSEE operated aircraft is not allowed on special-use flights. Any other use of space-available travel requires trip-by-trip approval by the Secretary of the Interior (or designee) and requires reimbursement at the full coach rate fare. Such requests must be processed through the RAM and NAM to the DOI Solicitor at least 10 days prior to travel.
- 7. Administrative Travel for Federal Employees. Government aircraft may be used for administrative travel purposes, provided that: (1) the cost is not more than commercial sources, including charter and rental; or (2) commercial aircraft is not reasonably available to meet the traveler's departure/arrival requirements within a 24- hour period, unless it can be demonstrated there are extraordinary circumstances which require a shorter period to fulfill the agency requirement. To assure compliance with OMB Circular A- 126 (revised), a travel cost analysis (Form OAS-110) must be prepared for all administrative flights.
  - **a. BSEE** (non-SES) **personnel.** BSEE (non-SES) personnel traveling from their duty station (i.e. HQ) to a different OCS Region must coordinate with the RAM when visiting an OCS facility on government aircraft. BSEE personnel traveling offshore must have prior approval (documented on an official Travel Authorization *Form DI* 1020) from their immediate supervisor in advance of any planned OCS facility visit.

Note: Routine Offshore Travelers<sup>49</sup> also require prior approval (documented on an official Travel Authorization - Form DI 1020) from their immediate supervisor in advance of any planned OCS facility visit. A one (1) year "blanket" Travel Authorizations is acceptable and recommended.

- b. Federal non-BSEE. The BSEE NAM will coordinate the review and approval process for federal non-BSEE passengers. The Chief or Deputy Chief, OORP must approve all Federal non-BSEE and non-Federal visitors in advance of any planned offshore travel on BSEE contract aircraft. This requirement does not apply for U.S. Coast Guard personnel that are not considered Senior Federal Officials or for Oil & Gas personnel who meet the specific conditions of the DOI Solicitor's letter at Appendix A.2. subj: Company Representatives on Agency Inspection Flights to Unmanned Platforms.
- c. **U.S. Coast Guard Personnel.** The DOI and the United States Coast Guard (USCG) entered into a Memorandum of Understanding (MOU) regarding air support operations. The MOU (No.13-01) authorizes the USCG to support the full range of

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<sup>&</sup>lt;sup>49</sup> A Routine Offshore Traveler is defined as a BSEE employee who flies offshore 6 or more times per year.

DOI missions at the discretion of the local USCG commander and allow for the coordination of flights at the operational level at the discretion of individual DOI Bureaus.

In support of BSEE missions, USCG personnel (non- Senior Federal Officials) are permitted to accompany BSEE personnel on contract aircraft. These flights should be coordinated at the region or district level with notification to the appropriate RAM. The RAM is responsible for tracking all flights that transport USCG personnel on BSEE contract aircraft and ensure the RD is aware of these flights.

# 8. Senior Federal Officials, Senior Executive Branch Official Travel, or non-Federal<sup>50</sup>.

- **a.** All travel on government aircraft must have advanced authorization.
- **b.** In accordance with OMB Circular A-126 and DOI aviation policy requests for all Senior Executive Branch Officials, Senior Federal Officials, Military Officials, and non-Federal visitors traveling offshore on BSEE contract aircraft must be reviewed by the NAM and approved by the Chief or Deputy Chief, OORP and DOI's Solicitor or Deputy Solicitor, Division of General Law in advance of the planned offshore travel.
  - 1. These requests must be submitted to the Regional Aviation Manager a minimum of 10 working days prior to the date of requested travel.
  - 2. Changes to SES travel plans (points of departure and destination, etc.) may require resubmission and approval.

The BSEE National Aviation Manager will coordinate the review and approval process for Senior Executive Branch, Senior Federal Officials, and non-Federal visitors traveling offshore on BSEE contract aircraft.

- **G. Hazardous Materials Transport**. Due to DOT requirements for the transportation of hazardous material (HAZMAT) by air it is recommended that BSEE require the Oil and Gas Operator to ship any potential HAZMAT. If BSEE must maintain positive control over a sample then fully complying with the DOT and aviation service provider's requirements (i.e. training, notification, packaging, etc.) is mandatory.
  - 1. When required by BSEE the transportation of hazardous materials shall be in accordance with Title 49 CFR, the Contractor's Operation Specifications, and the contract.
  - 2. BSEE passengers are responsible for notifying the pilot of the location and type of hazardous materials being transported and complying with the pilot's instructions.
  - 3. The pilot is directly responsible and is the final authority for the operation of the aircraft to include the acceptance of hazardous materials.

<sup>&</sup>lt;sup>50</sup> Does not apply to Oil & Gas personnel who meet the specific conditions of the DOI Solicitor's letter at Appendix A.2. subj: Company Representatives on Agency Inspection Flights to Unmanned Platforms.

### H. Flight Planning.

- 1. Flight plans must be filed, and flight following must be conducted, for all BSEE aviation activities as outlined in <u>351 DM 1.4</u> and the specific contract.
- 2. A flight hazard map will be constructed for each Region/District's local operational area and for specific routes between the primary airport and the coast or other on shore locations. The Regional Aviation Management Plan will require:
  - **a.** Flight hazards maps will be updated annually by March 1, or more frequently if significant aviation hazards change. Districts will implement procedures to document when the map is updated.
  - **b.** Districts will provide a current copy of the flight hazard map to the Regional Aviation Manager by March 1 each year. The RAM will notify the NAM by March 15 that all Districts have provided an updated flight hazard map.
- 3. Operating to or from Free Floating Vessels, Geo-Research Vessels, or Drill Ships.
  - **a.** Federal law requires ANY commercial conveyance (i.e. helicopter) arriving from a free-floating vessel on the OCS to file Advanced Passenger Information System (APIS) documentation. This requirement applies regardless of whether the mission was planned to land at free floating vessel, geo-research vessel, or drill ship not in production or whether the landing was not planned in advance (i.e. unannounced inspection or precautionary landing).
  - **b.** BSEE mission planners and inspectors need to be aware that additional time for flight planning and customs documentation may be required. To avoid a delayed departure, it is recommended that mission requests for flights requiring APIS documentation be submitted to the aviation service provider the afternoon before the intended flight. Any changes made the morning of the flight require the aviation service provider to refile which can take 2-4 hours to get clearance from the time the documentation is submitted.
- **I. Flight Following.** All aircraft transporting BSEE personnel require an operational satellite-based tracking/automated flight following (AFF) System before taking off from an on-shore base. BSEE's aviation contractor must ensure:
  - 1. The AFF system is compatible with the Government's AFF tracking network (Webtracker);
  - 2. The AFF system is monitored during all BSEE flight operations; and,
  - 3. The AFF system is available to BSEE and OAS to monitor (as required).

<sup>51</sup> A flight hazard could include, but is not limited to wires, towers, bird concentrations, airport traffic areas, noise abatement areas, military restricted areas etc.

- 4. If the satellite-based/AFF system fails during a mission the flight may be continued, at pilot discretion, as long as 15-minute position reports can be made; and,
- 5. If the satellite-based/AFF system fails and the 15-minute position reports cannot be made the pilot will land as soon as practicable at a location where communications with the vendor's flight operations center can be accomplished.
- 6. Once the aircraft has returned to the vendor's on shore base the AFF must be fully operational before it can be dispatched for further BSEE missions.

## J. Unmanned Aircraft Systems.

1. **Overview.** Interest and possible use of Unmanned Aircraft Systems (UAS) throughout the OCS are increasing. The Federal Aviation Administration (FAA) has established <u>UAS regulations</u> for flight operations.

The FAA retains the authority to approve UAS operations within the National Airspace System (NAS) in Class A, B, C, D, E and G airspace. When operating in Class A, B, C, D, E and G airspace, DOI UAS must be operated with a FAA Certificate of Waiver or Authorization (COA). COAs are not required in Restricted, Prohibited, or Warning airspace. However, UAS operations in these specific airspaces will be regulated and approved by the Controlling Authority (a.k.a. "Range Control").

2. Department of the Interior UAS Policy. UAS, by definition, are considered aircraft. While their size, method of control, and airspace utilization procedures are different than manned aircraft, the overall responsibility for management of UAS within DOI rests with OAS. The OAS Office of Unmanned Aircraft Systems is responsible for the development of a comprehensive and actionable UAS strategy for DOI. OPM-11 provides DOI guidance on the operations and management of UAS. BSEE shall comply with all protections and procedures addressed in OPM-11 when using any UAS on behalf of BSEE, whether the UAS is DOI-owned, operated by an aviation service provider, or vendor.

OAS has entered into a UAS Memorandum of Agreement (MOA), with the FAA UAS Integration Office that addresses the operation of small UAS (sUAS). This MOA establishes a framework under which all DOI Bureaus have access to the National Airspace System (NAS) through the COA via a notification process for sUAS operations.

- **a.** Certificate of Authorizations (COA). COAs are required for all UAS operations prior to flight. Under the current system, no contract or "for hire" operations by contractors with UAS are allowed. No emergency use of UAS will be allowed without an approved COA.
- b. UAS Request/Approval Process. BSEE shall not conduct UAS operations until requests are reviewed and approved by the BSEE Regional Director and the Chief of OORP, through the BSEE National Aviation Manager, and the OAS.

- **c.** Requests must be initiated <u>at least eight months</u> (estimated) prior to the anticipated UAS mission start date.
- 3. **UAS, Privacy, civil rights, and civil liberties.** In 2015, the White House issued a <u>Presidential Memorandum</u> (PM)<sup>52</sup> to promote economic competitiveness and innovation while safeguarding privacy, civil rights, and civil liberties in the domestic use of UAS. Key aspects of DOI's implementation of the PM include:
  - **a. Bureau Management** at all levels in the DOI is responsible for the public safety, civil rights, civil liberties, and privacy protection of UAS operations under their control. Managers and supervisors must monitor UAS programs and implement privacy civil rights and civil liberties controls to acceptable levels. Managers of UAS activities ensure that oversight and accountability procedures for agencies' UAS use, including audits or assessments, comply with existing agency policies and regulations, and those personnel receive training regarding privacy civil rights and civil liberties policies.
  - **b.** Existing DOI policies and procedures relating to the collection, use, retention, and dissemination of information (including data obtained by UAS) ensure that the privacy, civil rights, and civil liberties of all people are protected. The DOI uses UAS for scientific research, monitoring environmental conditions, analyzing the effects of climate change, responding to natural hazards, understanding rates and consequences of landscape change, and related land and resource management. The DOI bureaus shall not use UAS, or any other platform, for gathering personally identifiable information (PII) or information that infringes on anyone's civil rights or civil liberties. The DOI privacy policies have additional information on this topic.
  - c. The DOI and Bureau Privacy Officer(s) shall be consulted if any DOI bureau personnel are uncertain about whether UAS data might contain PII. DOI recognizes that any PII that can be gleaned from data by a third party is unintentional. UAS data containing PII shall not be retained for more than 180 days unless retention of the data is determined to be necessary to an authorized mission, in which case it will be stored in a system of records. All DOI UAS missions are now and will be in the future in full compliance with Federal laws, regulations, and DOI policies and procedures. Images collected with UAS sensors are handled and retained according to industry standards, consistent with images collected with any of the USGS remote sensing assets. The UAS missions are subject to professional standards, codes of conduct, case law, and with the public's trust in mind.
- 4. **BSEE UAS Policy.** BSEE does not currently have a UAS program or specific policy for UAS use. However, UAS operated on behalf of BSEE shall comply with all protections and procedures addressed in OPM-11, whether DOI-owned or vendor-owned. For more information contact the BSEE National Aviation Manager.

<sup>&</sup>lt;sup>52</sup> Presidential Memorandum: Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights, and Civil Liberties in Domestic Use of Unmanned Aircraft Systems dated February 15, 2015.

## K. Operational Environment Considerations.

- 1. **General.** The offshore environment in which BSEE operates in is subject to weather conditions that can adversely affect the safety of aviation operations such as thunderstorms, fog, and cold-water temperatures. It is critical that all members of the BSEE aviation team are aware of, and alert to, changes in the environmental conditions.
  - **a. Managers** must be aware of how their actions may influence pilots to operate beyond their individual capability and the capability of their aircraft.
  - **b. Pilots** must be ever cognizant of environmental conditions in which they are expected to operate. The pilot is the final authority to make a "go" or "no- go" decision based upon environmental and safety considerations.

Note: The limiting factor for flight operations will be the most restrictive limitation of either the vendor's operations manual, the specific contract, or applicable BSEE policy (e.g. in the Gulf of Mexico the most restrictive weather limits are found in GOM Regional policy).

## 2. Operations over Cold Water (below 50°F).

- **a.** Operating over water that is below 50°F requires compliance with 351 DM 4 and the ALSE Handbook.
- **b.** An anti-exposure suit will be worn on single engine aircraft and will be readily available to occupants of multiengine aircraft.

Note: The use of a helmet with an anti-exposure suit may not be possible. Under these circumstances the individual will need to secure a waiver (Appendix E.3).

**c.** An appropriate survival kit for environmental conditions per the DOI ALSE Handbook is required.

### L. Documentation Requirements. None.

### M. Bureau-Specific Operational Requirements.

- 1. **General.** Aircraft used in over-water operations will comply with 351 DM 1, the requirements of this Plan, and the appropriate Regional Aviation Management Plan.
- 2. **Pilot Briefing.** The pilot in command for all BSEE contracted aircraft shall ensure that prior to flight all passengers have been briefed in accordance with the items contained in 14 CFR Part 135.117, the appropriate contract, and the elements listed in Appendix I.1. In those instances where short flights are made, the briefing does not need to be repeated unless new passengers come aboard. Pilot and passengers should review the route of flight and destination. BSEE passengers must acknowledge to the pilot that the route and destination(s) are correct.

- 3. **Refueling Operations.** All refueling operations must be performed in accordance with the applicable BSEE aviation services contract. The safety of all refueling operations is the sole responsibility of the contractor. The Contractor must ensure all passengers understand that:
  - **a.** Passengers are not on board the aircraft during refueling operations.
  - **b.** Passengers should not be on the helideck during refueling.
  - **c** Loading of the baggage/passenger compartment is prohibited during refueling.
  - **d.** Passengers shall not be involved with the refueling of the aircraft unless the pilot has determined that it is an absolute necessity due to an emergency.
    - 1. Passengers required to be involved will be briefed on emergency shutdown and evacuation procedures.
    - 2. If such an emergency is declared by the pilot a SAFECOM must be submitted.
  - **e.** Smoking is prohibited within 50 feet of the aircraft and fuel-servicing vehicles.
  - **f.** When permitted by the contract **and ordered by BSEE** with contractor concurrence, the rapid refueling of aircraft must be in accordance with:
    - 1. FAA-approved program for rapid refueling as directed by 14 CFR 135.23; and,
    - 2. NFPA 407: Aircraft Fuel Servicing.
- 4. **Cell Phone Use.** The use of cell phones in BSEE contracted aircraft is prohibited during flight per Federal Communications Commission 49 CFR Part 22.925 (Prohibition on airborne operation of cellular telephones) and Federal Aviation Administration 14 CFR Part 135.144 (Portable Electronic Devices). There is no exemption for Federal Employees to use Cell Phones for official business while in flight.

The DOT and FAA have specifically prohibited the Samsung Galaxy Note 7 phones from being transported aboard any aircraft.

- Note 1: The aviation contractor's operations manual procedures may be more restrictive than this policy.
- Note 2: With the pilot's permission the cell phone's camera feature may be used (still or video).
- 5. **Lithium Battery Restrictions**. Lithium batteries are considered HAZMAT by DOT. DOT/FAA and our aviation service providers restrict their use on aircraft.

- **a.** Vendor safety procedures will be complied with at all times. Lithium batteries (i.e. cell phones, laptop computers, etc.) will be declared to the vendor (pre-boarding) and to the pilot (pre-flight briefing). The vendor may require physical inspection of equipment with Li-Ion batteries.
- **b.** Lithium batteries and Electronic Cigarettes will not be transported in checked luggage or in a baggage compartment.

## 6. Minimum Equipment List (MEL<sup>53</sup>) Requirements.

- **a.** All BSEE aviation service contracts shall require that regardless of the provisions in the aviation service providers Operations Manual for Minimum Equipment List the following listed equipment must be operable within the specifications detailed below for dispatch from the designated base. If any of these equipment systems become inoperable offshore or do not meet the criteria below, the aircraft may be dispatched for return to base only.
  - 1. Main rotor brake.
  - 2. TCAS, TCAD, or TAS.<sup>54</sup>
  - 3. Strobe light. If the contractor has installed a dual LED light on the horizontal stabilizer or upper cabin, the aircraft may be dispatched under the provision of the MEL if at least one white strobe is operational.
  - 4. Pulsating forward facing light(s).
  - 5. Transponder.
  - 6. Global Positioning System (GPS). The aircraft must have at least one system capable of VFR navigation; or capable of IFR navigation if flight is to be conducted under IFR.
  - 7. Intercommunication system (ICS) if the issue in the ICS system limit the communication ability between the passengers and the crew.
  - 8. Automatic Dependent Surveillance Broadcast (ADS-B) equipment.
  - 9. Hobbs meter (or equivalent)
- **b.** Regardless of any provisions in the MEL, if the Satellite tracking system becomes inoperable it must be repaired within 48 hours from the time the malfunction is

<sup>&</sup>lt;sup>53</sup> A Minimum Equipment List (MEL) is a document and method aircraft operators use to obtain relief from Federal Aviation Regulations requiring that all equipment installed on the aircraft be operative at the time of flight. MEL is also known as deferred maintenance.

<sup>&</sup>lt;sup>54</sup> TCAS (Traffic Collision Avoidance System), TCAD (Traffic Collision Avoidance Device), TAS (Traffic Avoidance System).

recorded. Any time the aircraft's Satellite tracking system is inoperative the remainder of the Contractor's flight following system for that aircraft must be fully functional. When the Satellite tracking system is inoperative the pilot must conduct radio flight following at intervals not to exceed 15 minutes. Failure of the Satellite tracking system will be documented using the DOI SAFECOM system.

## 7. Sea States and Helicopter Float Limitations<sup>55</sup>.

### a. Overview.

- 1. The aircraft floats on all BSEE-contracted helicopters are rated to sea state 4. Sea state 4 is defined in FAA Advisory Circular 29-2C as "moderate seas" with a significant wave height of between 4-8 feet and wind speed of 17-21 knots.
- 2. Due to a helicopter's high center of gravity the float system is unlikely to keep a helicopter upright for an extended period regardless of the float rating. The float system is designed to give the occupants the time to get out of the helicopter and into the life rafts.
- 3. BSEE's Pacific Region, and to a lesser degree, the Gulf of Mexico Region, experience wave heights above sea state 4 often enough to warrant mitigation of those risks.
- 4. BSEE uses a systems approach towards risk mitigation involving **training** (HUET, CA-EBS, and marine survival) and **equipment** (floats, rafts, life vests, CA-EBS, and EPRIBs<sup>56</sup>).

### b. **Policy**.

1. Risk Mitigations and Approval:

### a. Preflight.

1. Prior to the first flight of the day, and throughout the day as necessary, the pilot should use National Weather Service (NWS) and/or National Oceanic and Atmospheric Administration (NOAA) information to evaluate the meteorological and environmental conditions that will affect the planned route of flight. This will include wave height, wave steepness (if available), water temperature, winds, visibility, cloud ceilings, etc.

2. If sea states 5 or 6 (waves 8 feet or greater) would be encountered during the planned flight BSEE personnel, in coordination with the pilot, should consider altering the route or changing the destination to avoid the areas of higher sea states.

<sup>56</sup> Emergency Position Indicating Radio Beacons (EPIRB) alert search and rescue services by transmitting a distress signal via satellite to the nearest rescue coordination center. BSEE require the pilot's flight vest be equipped with an EPIRB.

<sup>&</sup>lt;sup>55</sup> See Appendix I.4 for additional information on sea states and float limitations.

- 3. For each flight where sea states 5 or 6 will be encountered an operational risk assessment shall be conducted and approved by BSEE management prior to the flight. It is recommended that the risk management worksheet located in the BSEE NAMP Appendix F.3 or equivalent be used.
- 4. Flights in areas of sea state 7 are prohibited.
- b. Risk Approval Level.
  - 1. Sea state 4 or lower (waves less than 8 feet). The mission risk approval level remains unchanged.
  - 2. Sea state 5 (waves 8-13 feet). The mission risk approval level is the Regional Director. Requests to operate over areas of sea state 5 will be documented on a Risk Assessment Worksheet stating the justification for accepting the additional risk. The request and worksheet will be routed through the District Manager to the Regional Director for approval.
  - 3. Sea state 6. The mission risk approval level is the BSEE Director. Requests to operate over areas of sea state 6 will be documented on the Risk Assessment Worksheet stating the justification for accepting the additional risk. The request and worksheet will be routed through the District Manager and Regional Director to the BSEE Director for approval.
- c. Pilot's preflight briefing should include the sea states (wave height) and winds expected to be encountered during that flight.

# **Section 5. Aviation Training**

The education and training requirements listed in OPM 4 are the minimum required by the Department for promoting aircraft accident prevention awareness and developing operational and management skills. BSEE, at the national or lower organizational levels, may increase but not decrease OPM 04 requirements.

## A. Management Responsibilities.

- 1. **Managers**. The education, training, and qualification of DOI personnel at all organizational levels is the responsibility of management. Managers <u>and supervisors</u>:
  - a. Must be aware of Departmental policy as it relates to aviation programs supporting BSEE missions for which they are responsible.
  - b. Will ensure that BSEE personnel are provided the time and opportunity to take the aviation training courses required by OPM- 04. this NAMP, and the applicable Regional Aviation Management Plan
  - c. Will identify, develop (or request assistance from the RAM/NAM in developing), and present additional aviation training to meet their mission needs.
  - d. Will prohibit personnel who are not complete and current with their aviation training requirements from performing aviation duties (flying or supervising personnel who fly).
  - e. Will provide time and resources for education and training as specified in OPM 04.

## 2. Supervisors.

- a. Will ensure that employees under their authority receive the level of aviation safety training required by Departmental policy <u>before participating in aviation operations</u>.
- b. Will review their employees' training progress in IAT monthly and provide a summary of that progress to the District Manager. In Alaska, this information will be provided to the Regional Supervisor of Field Operations.
- 3. **District Managers or in Alaska the Regional Supervisor of Field Operations** should identify, develop, and present additional aviation training to meet their mission needs. DMs or the RSFO may request support from the RAM or NAM for the development of training for specific mission needs.
- 4. The **NAM** will monitor the BSEE aviation training program to ensure that the goals and competencies are being met. The NAM will ensure a summary of aviation training is available upon request.

5. The **RAM** will monitor aviation training within their Region to ensure that training requirements are being met and proficiency maintained. The RAM will provide a summary of aviation training monthly to the NAM.

NOTE: In Alaska the RAM reviews employees' IAT training and provides a summary to the Regional Supervisor of Field Operations and the NAM.

### **B.** Required Aviation Training

1. **Managers** must complete the M2<sup>57</sup> (Aviation Management Line Managers Briefing), or the M3 (Aviation Management for Supervisors), and the A-302 (Personal Responsibilities and Liabilities) courses initially and every three years thereafter.

If a manager is not complete and current with their IAT requirements they may not manage aviation programs until they complete their aviation training requirements. Aviation program may continue with another qualified manager in charge.

2. **Supervisors** must complete the M3<sup>58</sup>, A-200 (Mishap Briefing), and A-302 courses initially and every three years thereafter. If a supervisor is not complete and current with their IAT requirements, their subordinates are not allowed to perform their aviation-related duties (i.e. their subordinates are grounded).

NOTE: A-302 is only available in a classroom or via webinar. The requirement to complete this course is extended for all supervisors and managers until December 31, 2020.

- 3. **Passengers.** In regard to aviation training requirements BSEE recognizes three categories of passengers: Visitors/Non-Routine Offshore Travelers, and Routine Offshore Travelers. The number of offshore trips the individual flies, or is reasonably expecting to fly, on an annual basis determines their aviation training requirement(s) (See Appendix C.3 for more details).
  - **a.** HUET or CA-EBS<sup>59</sup>. If a Routine Offshore Traveler is not current or complete with their HUET or CA-EBS training, they are prohibited from participating in offshore flights until current again or are granted a 30-day extension by their Regional Director.
  - **b.** IAT. There are no extensions for A-100 or A-200 requirements<sup>60</sup>. The RD may extend the requirements for A-310 until the first course (classroom or webinar) is

<sup>58</sup> Supervisors are encouraged to attend an M2 (Aviation Management Line Managers Briefing). Taking the M2 does not automatically replace the requirement to take the M3 (Aviation Management for Supervisors). Supervisors should notify their RAM and request equivalency from OAS Training Division.

<sup>&</sup>lt;sup>57</sup> See Appendix C.5 for the BSEE-approved outline for the M2 briefing

<sup>&</sup>lt;sup>59</sup> The intent of this policy is to specifically enforce compliance for Routine Offshore Travelers. Visitors and Non-Routine Offshore do not have HUET or CA-EBS training requirements but are required to be briefed by the pilot on egress and CA-EBS safety before each flight. This reduced level of training **DOES NOT** apply to Routine Offshore Travelers.

<sup>&</sup>lt;sup>60</sup> The A100 and A200 are required by DOI for Special Use missions (reconnaissance, low level, vessel landings, and mountainous terrain) and **any extensions to DOI required training must be approved by the OAS Director**.

available but for no more than 30 days.

**c.** Appendices C.1 (HUET), C.2 and Section 3. F.4. a. 5 (CA-EBS), C.4 (IAT) provide detailed discussion on these roles and training requirements.

**NOTE**: After October 1, 2020 routine offshore travelers are required to complete CA-EBS as part of their HUET training<sup>61</sup>.

- **d.** Required IAT course frequency (initial and refresher training) for routine offshore travelers:
  - 1. A-100 (Basic Aviation Safety). Initially and every three years thereafter.
  - 2. A-200 (Mishap Review). Initially and every three years thereafter.
  - 3. A-310 (Introduction to Crew Resource Management). Initially and every three years thereafter. After the individual has taken the initial A-310 Regional Directors are encouraged to approve equivalent Crew Resource Management refresher training tailored to BSEE's mission. Such equivalent CRM training will be annotated in the IAT system as A-310E (E = "equivalent").
  - 4. A-312E (Water Ditching and Survival). BSEE uses the IAT system's A-312 course to track completion of BSEE's required HUET training. BSEE employees may take the A-312 course but it does not take the place of HUET. HUET will be annotated in the IAT system as A-312E.

**NOTE** - HUET refresher training is required every 4 years. See Appendix C.1 for details.

- 4. **Aviation Managers**. Aviation Managers at the National (NAM) and Regional levels (RAM and RASM) are required to meet the OPM 4 requirements for an Aviation Manager<sup>62</sup>. Aviation Managers:
  - a. Are required to complete all courses that are available online or via webinar within 6 months.
  - b. Are required to complete all OPM 4 requirements within 12 months.
  - c. Are required to attend an OAS-sponsored ACE (Aviation Centered Education) within 12 months.
  - d. Waivers to extend an aviation manager's requirements will be forwarded through the aviation manager's chain of command to the Chief, OORP for approval.

<sup>&</sup>lt;sup>61</sup> OPITO does not currently allow CA-EBS training in the dunker and all CA-EBS training is conducted in the shallow end of the pool in no deeper than 2 feet 3.6 inches (.7) meters of water.

<sup>&</sup>lt;sup>62</sup> Due to COVID 19 the OAS Director has authorized an extension for specific 300-level IAT courses until April 30, 2021. Refer questions to your RAM or the NAM.

- e. Aviation Managers should present or participate in all IAT presentations for their units.
- f. Aviation Managers are encouraged to become qualified IAT Trainers.
- 5. Extensions of Aviation Training Requirements<sup>63</sup>.
  - a. The deadline for courses that are available online (A-100, A-200, and M3) may not be extended<sup>64</sup>
  - b. The deadline for courses that are required by BSEE (not DOI) and which are only available via classroom or webinar (A-302, A-310, and M2) may be extended for:
    - 1. Newly assigned personnel may request an extension of up to 90 days from the RD
    - 2. Existing personnel may request an extension of up to 30 days from the RD.
  - c. All extensions require chain of command approval and RAM & NAM technical review before being submitted to the RD for approval.
  - d. If an extension expires without completion of the required training the individual is prohibited from performing their aviation duties (flying, supervising, or managing) until their qualification is renewed.
- **C. Specialty training**. BSEE does not have specialized training other than that listed in Section 3.0 C. Promotion.

### 1. M2 Aviation Management Line Managers Briefing.

a. **Policy**. All managers with line authority over aviation operations are required by DOI policy to take the M2 Aviation Management Line Managers Briefing or the M3 Aviation Management for Supervisors course every 3 years.

An M2 briefing is particularly well suited for senior managers and leaders (GS14 or higher) whose time is often limited and who would benefit more from detailed information on BSEE aviation programs rather than a generalized presentation on the Department's aviation program as presented in the M3 course.

<sup>&</sup>lt;sup>63</sup> Due to unforeseeable closures of training facilities and unavailability of academic courses that require an instructor, extensions for aviation training requirements of up to 90 days may be requested through the chain of command to the Chief, OORP. The period of the extension will be valid from the date the individuals training currency expired. Regional Directors may request blanket extensions for their personnel. For extensions in excess of 90 days the RAM must contact the NAM prior to requesting the extension.

<sup>&</sup>lt;sup>64</sup> The A100 and A200 are required by DOI for Special Use missions (reconnaissance, low level, vessel landings, and mountainous terrain) and M3 is required for DOI Supervisors and **any extensions to DOI required training must be approved by the OAS Director**.

Note: Currently OPM 4 does not authorize supervisors to substitute the M2 briefing for the M3 course. If a supervisor participates in an M2 briefing they may request equivalency for the M3 course through their RAM. The RAM will forward the request to the NAM who will coordinate the equivalency with the Chief, OAS Training Division.

2. **Instructor**. The M2 briefing should be presented by an individual who is both an experienced BSEE aviation manager (NAM or RAM) and an approved IAT trainer in order that the briefing is tailored to BSEE's mission and aviation operations.

If the BSEE aviation manager is not an approved IAT trainer they may get the assistance of an approved IAT trainer (co-teach) or coordinate with the Chief, OAS-TD to seek administrative assistance and/or waiver.

The BSEE NAM will be included in the planning of any M2 briefing.

3. **Time commitment**. OPM 4 specifies the length of the M2 as 2 hours. However, it is more important to focus on content and value than on time, particularly with very senior managers/leaders, therefore instructors should target two hours for the M2 briefing.

Instructor(s) are encouraged to tailor each briefing to the specific audience. Emphasis must be placed on an interactive discussion rather than straight lecture. Instructors should seek to actively engage senior managers/leaders in a discussion on their aviation programs rather than to fixate on the time element.

Note: It is recommended that the M2 instructor share this M2 outline with the briefing participants in advance so that they can help select the issues to be discussed.

4. **Syllabus**. The syllabus at Appendix C.5 is aligned with the elements of OPM 6 and is intended to be a guide rather than a list of compulsory topics.

### D. Contracting Officer's Representative (COR) requirements.

- 1. For all BSEE aviation contracts the Contracting Officer (CO), in consultation with the Program Office, determines the level of COR certification required for a contract. CORs will be developed and appointed as follows:
  - a. Level I-8 hours of training and no experience required. This level is appropriate for low-risk contract vehicles, such as supply contracts and orders.
  - b. Level II 40 hours of training and 1 year of previous COR experience required. This level is generally appropriate for contract vehicles of moderate to high complexity, including both supply and service contracts. The majority of contracts will require a Level II COR.

- c. Level III -60 hours of training and 2 years of previous experience required. These are the most experienced CORs within an agency who are called upon to perform significant program management activities. CORs assigned to major investments, as defined by OMB Circular A-11, are required to have a Level III certification.
- 2. BSEE aviation contract CORs should refer to the <u>BSEE Connect</u> intranet site for additional information.

## E. Documentation requirements.

- 1. **Online** IAT courses are automatically documented within the IAT system.
- 2. **Classroom and webinar** attendance must be documented in the IAT system by the IAT trainer who presented the training.
- 3. **HUET** is not an IAT course but will be documented in the IAT system for tracking purposes (see Appendix C.1). Employees will document their HUET completion by uploading the completion certificate into IAT as a course equivalency to A-312 (aka A312E), Water Ditching and Survival<sup>65</sup>.

## F. Bureau-specific training requirements.

- 1. **Helicopter Underwater Egress Training (HUET)**. BSEE employees whose duties require flying offshore must complete an OPITO T-HUET or approved cold water HUET course every 4 years (see Appendix C.1).
- 2. **Compressed Air Emergency Breathing Systems (CA-EBS).** CA-EBS training is required initially and every 4 years thereafter for personnel to use CA-EBS (see Section 3. F.4. a. 5).
- 3. **Interagency Aviation Training (IAT) Trainer**. Prior to attending the A220 (Trainthe-Trainer course) candidates will
  - a. Get written approval from their chain of command (specifically that the chain of command wants that individual to conduct training for their organization and will support the individual (time and travel) to actually conduct IAT training).
  - b. Get the NAM's written approval (NAM should know the individual's qualification and experience to teach).
  - c. Be complete and current with all applicable IAT training for the position that they hold.
  - d. Have completed any IAT courses that they intend to teach.

<sup>65</sup> An IAT External Equivalency Upload Guide is found at https://www.iat.gov/help/equiv/equivalency\_guide.asp

# Section 6. Aviation Security

**A. Aviation Facilities**. The Contractor is responsible for ensuring that each location used for aircraft landing and takeoff at which BSEE exclusive use aircraft are permanently based are secured in accordance with their contract and 352 DM 5.

## B. Aircraft and Equipment.

- 1. The Contractor is solely responsible for the security of their aircraft, vehicles, and associated equipment used in support of BSEE exclusive use aviation service contracts and under the control of the DOI.
- 2. Any aircraft used under a BSEE exclusive use aviation services contract must be physically secured and disabled via a dual-lock method whenever the aircraft is unattended. Any combination of two different anti-theft devices designed to lock aircraft flight control surfaces when not in use, or designed to secure an aircraft to the ground, is acceptable, provided they are appropriate for the aircraft. The following are examples of locking devices and methods which can be used in tandem to achieve the required "dual-lock" status. Utilization of other means of securing or disabling an aircraft is acceptable provided they achieve an equal level of security.
  - a. Locking Hangar Door
  - b. Keyed Magneto
  - c. Keyed Starter Switch
  - d. Keyed Master Power Switch
  - e. Hidden Battery Cut-Off Switches
  - f. Hidden Start RelaySwitches
  - g. Throttle/Power LeverLock
  - h. Mixture/Fuel Lever Lock
  - i. Locking Fuel Cut-Off
  - j. Locking Tie-Down Cable
- 3. Examples of Unacceptable Locking Devices and Methods include:
  - a. Locking Aircraft Doors
  - b. Fenced or Gated Tie-Down Area

- 4. Operational environments and personnel safety must be considered when selecting the locking devices and methods to be used. Locking devices and methods must be installed in a manner that precludes their inadvertent interference with in-flight operations. The removal and/or disabling of locking devices and methods must be incorporated into preflight checklists to prevent accidental damage to aircraft.
- **C. Aviation Fuel Security**. All contracts will require the aviation service provider to verify security, type and quality of fuel.

### D. General Aviation Security Programs.

- 1. The Transportation Security Administration (TSA) has implemented a national toll-free hotline that the general aviation (GA) community can use to report any "out-of-the-ordinary" event or activity at GA airports. The hotline -- (866) GA SECURE (866) 427-3287 -- is operated by the National Response Center and centralizes reporting to the appropriate local, state and federal agencies.
- 2. BSEE aviation users should report any suspicious activities immediately to the National Response Center (1-800-424-8802), local law enforcement, or call 911.

## E. U.S. Coast Guard (USCG) Maritime Security (MARSEC) and DHS National Terrorism Advisory System (NTAS).

- 1. BSEE's response to an OCS security threat level is guided by the USCG's three-tiered MARSEC levels. MARSEC is designed to provide a means to easily communicate pre-planned scalable responses to increased NTAS threat levels.
- 2. MARSEC levels are set to reflect the prevailing threat environment to the marine elements of the national transportation system, including ports, vessels, facilities, and critical assets and infrastructure located on or adjacent to waters subject to the jurisdiction of the U.S. The USCG Commandant sets the MARSEC level.
- 3. Specific measures taken during an increased in OCS threat level: (MARSEC Levels 2 or 3) are addressed in BSEE's *Threat Advisory Guidelines for OCS Operations (TAG)*. (See Appendix H.1 for more information on the NTAS, MARSEC and BSEE's TAG).
- 4. The NTAS consists of two types of advisories: Bulletins and Alerts.
  - a. Bulletins were added to the advisory system to communicate current developments or general trends regarding threats of terrorism on the homeland.
  - b. NTAS Alerts Elevated or Imminent -will provide a concise summary of the potential threat, information about actions being taken to ensure public safety, and recommended steps that individuals, communities, businesses and governments can take to help prevent, mitigate or respond to the threat.

### **Section 7.** Airspace Coordination

#### A. General.

- 1. BSEE's mission may involve flights that operate within the Air Defense Identification Zone (ADIZ) of the United States. All flights that penetrate the ADIZ will comply with the requirements of 14 CFR 99. Flights may, depending on location and altitude, also operate within airspace of IFR/VFR routes or National Wildlife Refuges. Flights will be planned to avoid these areas or to comply with their requirements and restrictions.
- **2.** Airspace coordination and guidance for the DOI is provided through the Interagency Airspace Coordination Guide (IACG).

### **B.** Definitions.

- 1. ADIZ (Air Defense Identification Zone). Defined as the area of airspace over land or water, extending upward from the surface, within which the ready identification, the location, and the control of aircraft are required in the interest of national security. ADIZ locations and operating and flight plan requirements for civil aircraft operations are specified in 14 CFR Part 99. Any aircraft that wishes to fly in or through the boundary must file either a Defense Visual Flight Rules (DVFR) flight plan or an Instrument Flight Rules (IFR) flight plan before crossing the ADIZ (14 CFR 99.11). While approaching and crossing the ADIZ aircraft must have an operational transponder and maintain two-way radio contact.
- **2. DVFR** (**Defense Visual Flight Rules**). Rules applicable to flights within an ADIZ conducted under the visual flight rules in 14 CFR Part91.
- **3. FTA** (**Fire Traffic Area**). An FTA is a communication protocol for firefighting agencies. It does not pertain to other aircraft that have legal access granted by the FAA within a specific TFR. The FTA should not be confused with a TFR, which is a legal restriction established by the Federal Aviation Administration to restrict aviation traffic while the FTA is a communication tool establishing protocol within firefighting agencies.
- **4. NOTAM (Notice to Airmen).** A notice containing information (not known sufficiently in advance to publicize by other means) concerning the establishment, condition, or change in any component (facility, service, or procedure of, or hazard in the National Airspace System) the timely knowledge of which is essential to personnel concerned with flight operations.
- **5. TFR** (**Temporary Flight Restriction**). A TFR is a geographically limited, short-term, airspace restriction. Temporary flight restrictions often encompass major sporting events, natural disaster areas, air shows, space launches, and Presidential movements. Pilots must check with flight service for ALL applicable NOTAMS immediately prior to flight to identify applicable TFRs. Some TFRs can be very complex in shape, movement, and duration.

- **C. De-confliction procedures.** All flights that enter an ADIZ shall be on either an IFR or DVFR flight plan, will flight follow with the FAA, and will comply with the requirements of 14 CFR 99.
- **D.** Emergency Security Control of Air Traffic (ESCAT) Procedures. ESCAT provides direction for the security control of civil and military air traffic during an air defense emergency.
  - **1.** The ESCAT Plan provides policy, assigns responsibilities, and prescribes procedures to be taken in the interest of national security. The ESCAT Plan supersedes the plan for the Security Control of Air Traffic and Air Navigations Aids (SCATANA). See <u>FAA Advisory Circular 99-1D</u>.
  - **2.** During defense emergency or air defense emergency conditions, additional special security instructions may be issued in accordance with <u>32 CFR 245</u>. Plan for the Emergency Security Control of Air Traffic (ESCAT).
  - **3.** Under the provisions of 32 CFR 245, the military will direct the action to be taken in regard to landing, grounding, diversion, or dispersal of aircraft and the control of air navigation aids in the defense of the U.S. during emergency conditions.
  - **4.** At the time a portion or all of ESCAT is implemented, ATC facilities will broadcast appropriate instructions received from the Air Traffic Control System Command Center (ATCSCC) over available ATC frequencies. Depending on instructions received from the ATCSCC, VFR flights may be directed to land at the nearest available airport, and IFR flights will be expected to proceed as directed by ATC.
  - **5.** Pilots on the ground may be required to file a flight plan and obtain an approval (through FAA) prior to conducting flight operation.
- **E. Bureau-specific airspace requirements**. Not applicable. BSEE does not have any bureau-specific airspace requirements.

### **Section 8.** Aviation Project Planning Requirements

### A. Policy.

- 1. <u>OPM 6</u> (Aviation Management Plans) requires a Project Aviation Safety Plan (PASP) for all special use missions (see <u>OPM-29</u> Special Use Activities and Revised Standards for Technical Oversight).
- 2. Rather than prepare a unique PASP for each special use mission OPM 6 allows bureaus to incorporate the required information into the organization's aviation management plan (NAMP/RAMP) which is reviewed at least annually. In this instance, in place of a full PASP the bureau must have a documented process to capture the unique and special circumstances (ex. dispatch log, passenger manifest).

### B. Regional Aviation Management Plan (RAMP).

- 1. RAMPs shall address the minimum elements required by OPM 6 Appendices 1 and 2 in enough detail so that a separate PASP will not be required for routine OCS missions (i.e. taking off from a base airport and flying to and landing on OCS helidecks).
- 2. Non-routine missions (i.e. disaster response or non-OCS missions) or missions that are identified as special use in OPM 29 (reconnaissance, low-level, vessel landings, or mountainous terrain) that are not addressed in the RAMP will require a mission-specific PASP to capture unique and special circumstances (ex. dispatch log, passenger manifest, risk assessment, specific aviation life support equipment, and pilot and aircraft carding, etc.).
- 3. Project supervisors, Project Aviation Managers<sup>66</sup>, and management-level project approvers are responsible for ensuring PASPs are completed. Each Region will have at least one qualified and current Project Aviation Manager (PAM). The RAM and NAM will be qualified as Project Aviation Managers and will be available to assist in preparing these PASPs.

<sup>66</sup> A Project Aviation Manager is defined as an individual who plans, organizes, and manages the aviation operations of a project utilizing aircraft. The Project Aviation Manager may or may not be at the site. In accordance with OPM 04 there are 15 specific IAT courses required to be qualified as a Project Aviation Manager.

### Appendix A.1

### **Authorization for Use of BSEE Contract Aircraft**

OMB Circular A-126 requires that all travel on government aircraft<sup>67</sup> must have advanced authorization. In accordance with OMB Circular A-126 and Department of the Interior (DOI) aviation policy in OPM 7 all Senior Executive Branch Officials, Senior Federal Officials, Military Officials and non-Federal visitors<sup>68</sup> traveling offshore on government aircraft must be approved by the DOI's Solicitor or Deputy Solicitor, Division of General Law (SOL) in advance of the planned offshore travel. The only exception to this rule is for Company Representatives on Agency Inspections Flights to Unmanned Platforms as defined in the DOI Solicitor's letter dated February 13, 2020 (Appendix A.2).

- 1. Senior Executive Branch Officials are civilian officials appointed by the President with the advice and consent of the Senate, or civilian employees of the Executive Office of the President or Vice President.
- 2. Senior Federal Officials<sup>69</sup> are Senior Executive Service (SES) or federal employees paid at a rate of pay beyond a GS/GM-15.
- 3. Military Officials include active duty military personnel and military officers.
- 4. Non-Federal passengers are those visitors not federally employed. Procedures for non-Federal passengers are divided into two sub-categories:
  - a. Oil & Gas Operator employees who are picked up offshore and taken to a nearby unmanned facility to accompany BSEE personnel conducting an inspection. Procedures for these non-Federal passengers are addressed paragraph B (below) and Appendix A.2 (Company Representatives on Agency Inspections Flights to Unmanned Platforms).
  - b. All other non-Federal passengers.

The NAM will coordinate the review and approval process for Senior Executive Branch, Senior Federal Officials, and non-Federal visitors traveling offshore on government aircraft.

The Chief or Deputy Chief, Office of Offshore Regulatory Programs (OORP) must approve all Federal non-BSEE and non-Federal visitors (other than those addressed in Appendix A.2) in advance of any planned offshore travel on government aircraft.

<sup>&</sup>lt;sup>67</sup> BSEE contract aircraft are considered Government aircraft. Per 41 CFR 102-33 "...Government aircraft is one that is operated for the exclusive use of an executive agency..."

Appendix A.2, DOI Solicitor letter Company Representatives on Agency Inspection Flights to Unmanned Platforms.
 This includes Region Directors using BSEE contract aircraft for point to point travel (November 2, 2011 email from Attorney Advisor, Office of the Solicitor).

## This requirement does not apply for U.S. Coast Guard (USCG) personnel that are not considered Senior Federal Officials.

BSEE personnel (non-SES) traveling to an OCS Region must coordinate with the Regional Aviation Manager (RAM) when visiting an OCS facility on government aircraft. BSEE personnel traveling offshore must have prior approval (documented on an official Travel Authorization - Form DI 1020) from their immediate supervisor in advance of any planned OCS facility visit. Each OCS Region will establish their own requirements for allowing Region personnel (non-SES) to travel offshore.

OMB Circular A-126 requires semi-annual reporting<sup>70</sup> to GSA of all Senior Executive Officials traveling on government aircraft. The NAM will coordinate with the SOL and the DOI Travel Manager, Office of Financial Management in preparing the report. The DOI Travel Manager submits the travel documentation to the GSA's Travel Management Policy Division, 1800 F Street NW, Room G218, Washington DC 20405 (FAX: 202-501-0349).

#### **PROCEDURES**

- **A.** Senior Executive Branch and Senior Federal Officials, and Non-Federal Visitors (other than Company Representatives on Agency Inspections Flights to Unmanned Platforms<sup>71</sup>).
  - 1. **Planning.** Allow a total of 10 working days from the initial mission request until the intended date of flight. This time allows for the District and the aviation service provider to plan and staff the mission, the RAM and NAM to develop the required documentation, and the mandatory 5 working days for the DOI Solicitor<sup>72</sup> to review and approve/disapprove the flight request.

Flight requests submitted with less than 10 working days of lead time will processed expeditiously but may not be approved if the review and approval process cannot be completed in time.

The RAM is responsible for ensuring the Regional Director is notified prior to the planned OCS facility visit.

- 2. In advance of a planned OCS facility visit the RAM sends the NAM an e-mail notification that includes:
  - a. Detailed purpose or justification of the visit;
  - b. Facilities to be visited;

<sup>&</sup>lt;sup>70</sup> Semi-annual reports are coordinated with the DOI, Attorney Advisor, Office of the Solicitor through the DOI Travel OFF and are sent to the GSA. The semi-annual reports cover the periods October 1 through March 31st (due May 31) and April 1 through September 30th (due November 30).

<sup>&</sup>lt;sup>71</sup> See Appendix A.2 and paragraph B (below).

<sup>&</sup>lt;sup>72</sup> See OPM 7 Appendix 3.

- c.
- d. Point of departure and return;
- e. Manifest of all visitors including BSEE escorts, along with who they work for and their titles/positions;
- f. Travel Cost Analysis (OAS 110) (prepared and signed by the RAM); and,
- g. Senior Federal Travel Form (GSA Form3641).
- 3. The NAM reviews the notification package for completeness and then forwards to the Chief, OORP with a recommendation whether or not to approve the offshore travel.
- 4. If approved by the Chief, OORP the NAM submits the notification package to the SOL for their review and approval.
- 5. The NAM will then forward the SOL's decision (approve or disapprove) with justification (Office of the Solicitor Correspondence Background Form) to the appropriate RAM.
- 6. The RAM shall notify the NAM by email of any planned OCS facility visit that was completed, canceled, or postponed.
- 7. The Solicitor in cooperation with the NAM will forward all SES travel reports to the Department of Interior's Travel Office (TO). The TO will forward all bureau SES travel reports semi-annually to the GSA.

# B. Non-Federal Visitors (Company Representatives on Agency Inspections Flights to Unmanned Platforms).

1. Background. When BSEE inspects an oil and gas facility a representative of that company must accompany the BSEE inspector. For unmanned facilities with helideck's that cannot accommodate multiple helicopters the only practical means to accomplish the mission is for the O&G employee to ride in the BSEE helicopter.

The nature of these inspections involves short or no lead times that prohibit the normal approval process in paragraph A. above. As a result, BSEE asked the DOI Solicitor's Office to consider other approved means to accomplish our mission within existing policy.

a. The Solicitor's Office opined "...the travel of company representatives on agency inspections flights to unmanned platforms, to the extent that their presence is necessary to enable BSEE inspectors fully to carry out their statutorily required inspections, fits within OMB's narrow definition of "mission travel," for which Solicitor's approval is not required."<sup>73</sup>

### C. Federal Non-BSEE (GS-level) and Military Officials. The RAM is responsible for

<sup>&</sup>lt;sup>73</sup> See Appendix A.2 for the full Solicitor's letter

- **D.** ensuring the Regional Director is notified prior to the planned OCS facility visit.
  - 1. In advance of a planned OCS facility visit, the RAM sends the NAM an e-mail notification that includes:
    - a. Detailed purpose or justification of the visit;
    - b. Facilities to be visited:
    - c. Point of departure and return;
    - d. Manifest of all visitors including BSEE escorts, along with who they work for and their titles/positions; and,
    - e. The completed Travel Cost Analysis (OAS 110).
  - 2. The NAM reviews the notification package for completeness and then forwards to the Chief, OORP with a recommendation whether or not to approve the offshore travel.
  - 3. NAM notifies the RAM via email of the Chief, ORP decision.
  - 4. RAM notifies NAM that the planned visit was completed, canceled, or postponed.
- **E. U.S. Coast Guard Personnel.** USCG (non- Senior Federal Officials) personnel accompanying BSEE personnel on a scheduled mission using BSEE contract aircraft can be coordinated at the local level<sup>74</sup>. The USCG must reimburse BSEE for their sole use of BSEE contract aircraft. The BSEE RAM is responsible for tracking all flights that transport USCG personnel on BSEE contract aircraft and ensure the Regional Director is aware of these flights.
- **F. Summary of Required Documentation.** OMB Circular A-126 requires that all travel on government aircraft must have advanced authorization. The following documents that may be required to gain approval include:
  - 1. RAM e-mails notification of the planned OCS facility visit to the NAM (see section A. 1. above):
  - 2. Travel Authorization (Form DI 10200);
  - 3. Travel Cost Analysis (OAS 110) prepared and signed by the RAM.
  - 4. Senior Federal Travel Fom (GSA Form 3641).

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<sup>&</sup>lt;sup>74</sup> In accordance with the MOU between the USCG and DOI, either agency may request USCG personnel accompany BSEE on a scheduled mission using contract aircraft and can be coordinated at the local level

	Travel Authorization	Notification Email		OAS-110		GSA 3641
Who is responsible:	Next Level Supervisor	RAM to NAM	NAM	Chief OORP	SOL	
BSEE employees						
Senior Executive	-	<b>√</b>	✓	✓	<b>√</b>	<b>√</b>
Senior Federal	-	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
GS-level employees	✓	-	-	-	-	-
FEDERAL NON-BSEE						
Senior Executive	-	<b>√</b>	✓	✓	<b>√</b>	<b>√</b>
Senior Federal	-	✓	✓	✓	<b>√</b>	✓
GS-level Employees	optional	✓	✓	✓	-	1
MILITARY OFFICIALS		✓	✓	✓	– (High Rank)	
NON-FEDERAL VISITORS (Company Representatives on Agency Inspections Flights to Unmanned Platforms).						
NON-FEDERAL VISITORS (all other)		<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>

RAM – Regional Aviation Manager RD – Regional Director OORP– Chief/Deputy Chief, Office of Offshore Regulatory Programs NAM – National Aviation Manager SOL – Office of the Solicitor

# DOI Solicitor's Letter, Feb 13, 2020, "Company Representatives on Agency Inspection Flights to Unmanned Platforms



# United States Department of the Interior OFFICE OF THE SOLICITOR Washington, D.C. 20240

### Note.

To: Andrew J. Wareham, National Aviation Manager,

Bureau of Safety and Environmental Enforcement

From: Jennifer Heindl, Attorney Advisor, Division of General Law, Branch of General Legal

Services Services

Re: Company Representatives on Agency Inspection Flights to Unmanned Platforms

Date: February 13, 2020

You have asked us to opine on whether, under OMB Circular A-126, the Solicitor's approval is required for each BSEE inspection flight to an unmanned platform in which a company representative accompanies the inspector. You have explained that inspections cannot be carried out on such platforms without a company representative in attendance, and that there is no room on the platforms for two aircraft to land.

Under OMB Circular A-126, the Solicitor's approval is required whenever certain agency officials or non-agency personnel travel on agency owned or chartered aircraft. We believe, however, that the travel of company representatives on agency inspection flights to unmanned platforms, to the extent their presence is necessary to enable BSEE inspectors fully to carry out their statutorily required inspections, fits within the OMB Circular's narrow definition of "mission travel," for which Solicitor's approval is not required.

Note that this opinion is limited to this precise travel scenario, and should not be used to justify other BSEE charter aircraft use "mission travel" under the terms of the OMB Circular without consultation with the Solicitor's Office. For example, flights on which senior agency officials, Congressional staff, or contractors are being taken out to rigs to observe the inspection process, or to do work for us or some other agency (such as FAA) do not meet the narrow definition of "mission travel," and continue to require Solicitor's approval under the OMB Circular.

If you have any questions about this note, please contact Jennifer Heindl at 202-208-7094 or Timothy Murphy, Acting Associate Solicitor for General Law, at 202-208-3510.

### Appendix A.3

### **Offshore Visitors Information Form**

Make sure that you coordinate all offshore travel with the appropriate Regional Aviation Manager to ensure aircraft and seats are available when you want to fly. Your Travel Authorization must include offshore travel.

**ASAP:** Please fill out the top portion of this page and email to the appropriate Regional Aviation Manager with a copy to the BSEE National Aviation Manager when traveling offshore.

BSEE NAM	Andrew Wareham	andrew.wareham@bsee.gov
Alaska OCS Region	Michael Jordan	michael.jordan@bsee.gov
GOM OCS Region	Eric Brewton	eric.brewton@bsee.gov
Pacific OCS Region	Brian Little	brian.little@bsee.gov

BSEE will supply flight helmets, hard hats, steel-toed shoes, ear-plugs, and other safety equipment that is needed. When available BSEE will provide fire-resistant clothing, boots, and fire-resistant gloves.

NOTE – The guest is responsible to the RAM (above) for any Regional specific requirements Bring your official employee ID/credentials

Visitors Name			
Date of Offshore Trip			
Agency/Company Name			
Destination			
Purpose of Visit:			
Shoe Size:			
Men's	Women's	S	
Weight:			

this information): NAME OF EMERGENCY CONTACT:	
TELEPHONE NUMBER FOR EMERGENCYCONTACT:	_
In order that you may experience a positive and safe offshore visit please read the	

following list of <u>potential conditions</u> and <u>safety suggestions</u>.

- 1. Be sure to include offshore travel on the travelers Travel Authorization.
- 2. Please advise BSEE Region personnel of <u>anymedical conditions and/or medications "before" leaving</u> the BSEE offices.
- 3. In the event of unexpected overnight stays, bring all medications needed. <u>This would include</u> any medication for motion sickness during flight and while on the facilities. Also, please keep in mind the remote locations in relativity to any medical care needed.
- 4. Be advised that excessive heights may be encountered during the flight and while on the offshore platforms/drilling rigs.
- 5. There is <u>always</u> the potential for slips, trips, and falls due to uneven and slippery surfaces.
- 6. You may experience occupational exposure to high noise levels, excessive heat, humidity, winds, orice.
- 7. Emergency evacuations <u>could include</u> either boat or capsule, which may require descending multiple flights of stairs or physical transference by personnel basket.

### **HELICOPTER SAFETY TIPS**

Extreme caution should be always used when approaching or departing the helicopter.

- 1. A flight safety briefing that includes emergency evacuation will be presented by the pilot prior to flying offshore. If one is not given ask for one.
- 2. Always approach and leave the helicopter in a direction that allows the pilot to see you.
- 3. Be aware there may be extremely high winds on the heliport and the facilities.
- 4. Helicopter travel could include emergency "ditching" on land and in water.
- \* Administrative note: FEGLI life insurance policy covers approved travel. If you have other life insurance, you should make sure you are covered when traveling in a helicopter for work purposes.

### Appendix B.1

### Aviation Safety Communiqué (SAFECOM)

#### **BACKGROUND INFORMATION:**

**Overview**: The Department of the Interior's Aviation Management Information System (AMIS) uses the Aviation Safety Communiqué (<u>SAFECOM</u>) to report any condition, observation, act, maintenance problem, or circumstance with personnel or the aircraft that has the <u>potential</u> to cause an aviation-related <u>mishap</u>.

Information provided by SAFECOMs is used by Department of Interior (DOI) and BSEE aviation managers to identify safety issues and to analyze trends as part of our efforts to continually improve our accident prevention processes and reduce risk to our employees. Local managers are encouraged to post <u>public versions of completed SAFECOMs</u> to bulletin boards to increase situational awareness and to discuss SAFECOMs during safety meetings.

Categories of events that should be reported using the SAFECOM system include, but are not limited to, aircraft mishaps, hazards to aviation operations, aircraft maintenance deficiencies, human performance deficiencies, airspace problems, management issues, as well as <u>mishap</u> prevention efforts and commendable actions including superior airmanship.

### Situations that warrant a SAFECOM include, but are not limited to:

- Damage to Aircraft. Any damage to the aircraft during contract operations.
- Injury to personnel as a result of contracted aircraft operations.
- Maintenance Deficiency. A defect or failure causing mechanical difficulties encountered in aircraft operations under the contract.
- Forced Landing. A landing necessitated when continued flight is impossible.
- Precautionary Landing. A landing warranted by apparent or impending failure of systems, or components, adverse weather, or incapacitation of the flight crew which makes continued flight inadvisable.
- Deviations from policies, procedures, regulations and instructions as contained in Federal Aviation Regulations, DOI or BSEE policy, or contract requirements.
- Deviation from planned operations, flight plan, type of use (for example, landing at an alternate or rerouting flight due to adverse weather).
- Flight following events (errors, lapses, equipment failures, etc.).
- Failure to utilize, or availability of, PPE or ALSE (helmets, EBS, seat belts or shoulder harnesses, etc.).
- Inadequate training, or failure to meet training requirements.
- Failure to properly use manifests or calculate weight and balance.
- Weather conditions (diversions or precautionary landing due to weather) (weather holds or cancellations do not warrant a SAFECOM submission).
- Ground operations (ramp or helideck hazards).

- Adverse or exemplary pilot procedures.
- Fuel contamination.
- Unsafe actions by pilot, passengers, or support personnel (pressuring or distracting a pilot, failure to comply with pilot's directions in flight, etc.)
- Near Mid-Air Collision.
- Deviations from established procedures for hazardous materials handling and/ortransport (lithium batteries, samples of oil or contaminated water, etc.)
- Positive actions/performance that prevent a mishap or improve BSEE's accident prevention program.

All SAFECOMs should be submitted within the same day, but no later than five days after the event.

If the SAFECOM identifies a commendable action the BSEE National Aviation Manager (NAM) or other BSEE management will review it to determine whether a safety award or other recognition is warranted. The first step to recognizing and rewarding mishap prevention efforts begins when someone takes the time to document the event. BSEE encourages the use of SAFECOMs to identify positive safety events.

Submitting a SAFECOM does not replace the requirement for immediate notification of an aircraft accident per 49 CFR 830.5 and 352 DM 3.4, or initiating a DI-134 "Report of Accident/Incident," as required by 485 DM 5.

A SAFECOM is not a substitute for an "on-the-spot" correction nor should it be considered the sole mechanism to report immediate safety of flight issues. It is a tool used to document, track, and ensure follow-up actions are taken to correct aviation safety issues. Ownership of workplace safety is an important responsibility for each employee and is a key indicator of an organization's safety culture. No one should ever walk past a problem to file a report.

The degree of participation by the workforce in a voluntary hazard reporting program such as SAFECOM is a leading indicator of the organization's safety culture. World-class safety requires active reporting, so an area of emphasis for BSEE is to promote the active use of the SAFECOM system by both its employees and its aviation contractors.

**Management's Role**. DOI requires all levels of BSEE management to promote the reporting of aviation hazards using the SAFECOM system.

Prompt replies to the person who submits the SAFECOM (if a name and telephone number/address is provided), timely action by management to correct problems, and discussing SAFECOMs at District meetings encourages situational awareness, active reporting, and the sharing of lessons learned.

**Restrictions**: DOI policy (352 DM 3.10) prohibits using SAFECOMs for initiating punitive actions against any person (employee or vendor). A

SAFECOM's sole purpose is for mishap prevention.

While the SAFECOM itself shall not be used for any purpose other than mishap prevention, any information discovered or further developed during the investigation of a safety concern, even if initially described in a SAFECOM, may be used for any lawful purpose.

The Office of Aviation Services (OAS) ASM is the Custodian of Record for Interior Mishap Information. Individuals granted access to initial SAFECOM information require training and are accountable for the proper use of SAFECOM data.

BSEE personnel are not required to fly when unsafe conditions exist. It is the employee's responsibility to immediately report any such aviation hazard first to their supervisor and then to submit a SAFECOM.

### **PROCEDURES:**

Who Can Submit a SAFECOM? Any person may submit a SAFECOM. This includes BSEE employees, vendor employees, and other government personnel in support of BSEE aviation activities.

Multiple SAFECOMs that address the same event may be necessary (i.e. the BSEE inspector and the pilot sharing their perspectives on an event). It is also acceptable, and may be necessary, for an inspector and the pilot to collaborate on the same SAFECOM.

If anyone is in doubt about whether or not to submit a SAFECOM, they should <u>submit it</u>. If we don't know about a problem we can't fix it. Personnel may also want to contact the Regional Aviation Manager, Regional ASM, or the BSEE NAM to discuss the issue.

**How to Submit a SAFECOM:** A SAFECOM may be submitted via the Internet at http://www.safecom.gov using a computer, tablet, or smart phone.

Step 1 – Go to <u>www.safecom.gov</u> and select "Submit SAFECOM" (see Figure 1). No user ID or password is required.

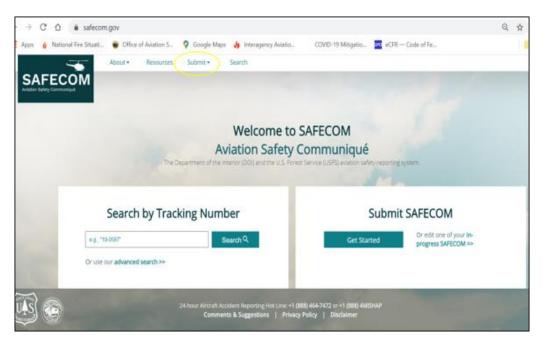


Figure 1. SAFECOM home page.

Step 2 – Enter the data for the event being reported (see Figure 2). Focus on providing the facts of what is wrong rather than who is wrong. Describe the event in enough detail for the reader to understand the significance of the event. If the corrective action is known at the time of submission, include it. If the corrective action is not known leave this section blank, that can be filled in later by the RAM/NAM. When finished entering data select "continue". The next screen allows you to confirm what you are submitting and to upload images (.jpg) or documents (.pdf). When satisfied select "submit" and you're done.

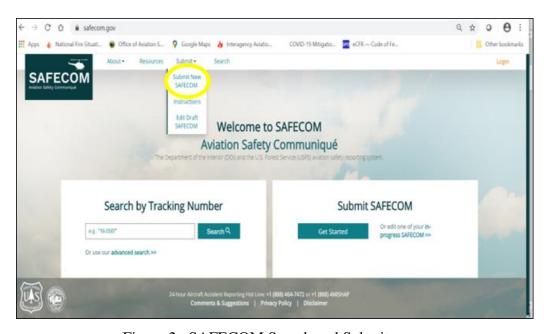


Figure 2. SAFECOM Search and Submit page.

**Note 1:** It is important that the submitter select BSEE as the Agency having operational control. If that block is left blank or another organization is selected the SAFECOM will not be routed to BSEE managers for resolution.

**Note 2:** For all routine GOM or Pacific missions the "Type" of mission is always "Offshore", and the "Procurement" is always "Exclusive Use contract".

What happens next (see Figure 3): Immediately upon submitting a SAFECOM you should get a notification showing you who the SAFECOM was sent to and an email thanking you for submitting the SAFECOM.

The SAFECOM will be reviewed by the BSEE NAM, the Regional Aviation Manager, managers and supervisors at the District-level, and managers and safety professionals at the OAS. Individuals granted access to initial SAFECOM information require training and are accountable for the proper use of SAFECOM data.

The RAM or NAM will coordinate as necessary to verify the information in the SAFECOM, to determine **why the event occurred**, and to **determine what should be done (or what was done) to correct the issue**. In accordance with OAS procedures the RAM or NAM will remove any identifying information from the SAFECOM (names of personnel or companies, tail numbers, etc.) before making the SAFECOM "public".

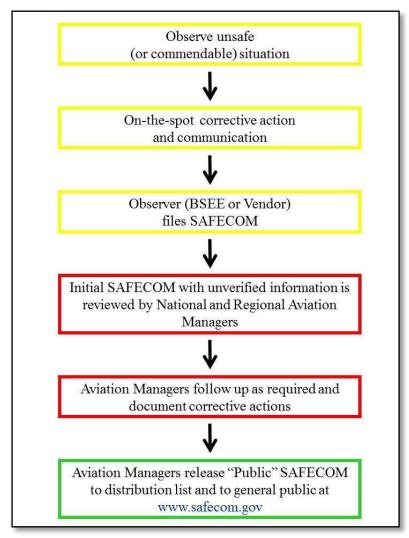


Figure 3. SAFECOM process.

Once a SAFECOM has been made public an email notification is sent to BSEE and vendor personnel who have previously requested to be on the SAFECOM distribution list. Anyone wishing to be on the SAFECOM distribution list should request access from their RAM or the NAM. Public SAFECOMs are available to anyone at the SAFECOM website: www.safecom.gov (select "Search SAFECOMs in the left column).

If additional information is discovered after a SAFECOM has been made public, the RAM or NAM should be notified, and they will update the information in the SAFECOM system.

### **POINTS OF CONTACT:**

### Office of Aviation Services (OAS):

• Keith Raley, Chief, Aviation Safety, Training & Program Evaluations, (keith\_raley@ios.doi.gov), 208433-5071.

- OAS Aviation Safety Assistant/SAFECOM System Administrator, (krista.schultz@ios.doi.gov), 208433-5070.
- Kevin Fox, OAS Alaska Regional Director, <u>kevin.fox@ios.doi.gov</u>, 907-271-3700.
- Frank Crump, OAS Eastern Regional Director, <u>frank\_crump@ios.doi.gov</u>, 770-458-7474.
- Gary Kunz, OAS Western Regional Director, <u>gary\_kunz@ios.doi.gov</u>, 208-334-9300.

### BSEE/OORP:

• Andrew Wareham, National Aviation Manager, (<u>andrew.wareham@bsee.gov</u>), 907-334- 5278 or (c) 571-585-4770.

### GOMR:

• Eric Brewton, GOM Regional Aviation Manager, (<u>eric.brewton@bsee.gov</u>) 504-736- 7598

### Pacific OCS Region (POCSR):

- Brian Little, POCSR Regional Aviation Manager, (brian.little@bsee.gov), 805-384-6308
- Chet Miller, POCSR Regional Aviation Safety Manager, (<a href="mailto:chet.miller@bsee.gov">chet.miller@bsee.gov</a>), 805-479-5022

### Alaska OCS Region:

• Michael Jordan, Alaska Regional Aviation Manager, (michael.jordan@bsee.gov, 907- 334- 5312, cell 907-382-7814.

### **Appendix C.1**

### **Helicopter Underwater Egress Training (HUET)**

**Overview**: Aviation plays an essential role in BSEE's ability to conduct our OCS mission, but flying offshore comes with inherent risks. One way we can minimize those risks to our employees and our mission is by being properly trained. HUET provides an individual with the skills necessary to coordinate the evacuation and successfully egress from a helicopter involved in a water landing and safely await rescue.

BSEE policy requires Helicopter Underwater Egress Training (HUET) for all employees considered Routine Travelers (defined below). This policy applies to BSEE employees whether they are flying in a BSEE-contracted or cooperator aircraft (i.e. U. S. Coast Guard, National Guard, etc.). BSEE HUET policy also applies to any non-BSEE personnel (i.e. other Government Agency personnel, media, contractors, etc.) flying in a BSEE contracted aircraft.

The Offshore Petroleum Industry Training Organization<sup>75</sup> (OPITO) supports the offshore oil and gas industry by developing standards for training and providing audits to ensure that their training standards are continually met. BSEE aviation managers have monitored OPITO HUET courses for several years and fully support adopting the OPITO HUET and Tropical (T) -HUET<sup>76</sup> courses.

### Policy:

- 1. Alaska Region employees will take a cold-water HUET course approved by the Alaska Regional Director in the Regional Aviation Management Plan (RAMP).
- 2. BSEE's Gulf of Mexico and Pacific Regions may take either an OPITO T-HUET or a cold-water HUET course approved by the Alaska Regional Director
- 3. Completion of an approved cold water HUET course is an acceptable alternative to the T-HUET course. However, completion of the T-HUET course may not be used in lieu of an approved cold water HUET course

**Responsibilities:** BSEE employees who fly offshore are responsible for complying with all requirements specified in this policy.

Each manager and/or supervisor who utilizes aviation resources is required to ensure all mission associated aviation operations are conducted in a safe, efficient and environmentally sound manner. More specifically, responsibilities are delegated as follows:

OPITO is an Industry-owned not-for-profit organization that exists solely to service the needs of the Oil and Gas Industry.
 OPITO is employer led in all aspects of what it does, therefore all standards development activities are at the behest of industry employers. The standards are driven by the needs of employers to help create a safe and competent workforce.
 For brevity when the abbreviation "HUET" is used it will apply to OPITO-approved T-HUET and (cold water) HUET.

The **Regional Directors (RDs) have** the approval authority for HUET waivers

- 1. The **BSEE NAM** is responsible for maintaining BSEE's HUET policy and will provide a technical review before the request for equivalency is presented to the RD for approval authority for HUET equivalencies.
- 2. **RAMs** are responsible for monitoring the HUET programs within their regions and to consider requests for HUET equivalency.
- 3. **Managers and Supervisors** whose employees utilize aviation resources must:
  - a. Comply with the regulations, policies, and guidelines for providing aviation safety training and personal protective/aviation life support equipment.
  - b. Ensure that identified personnel receive and complete HUET before being allowed to fly offshore.
  - c. Ensure employees request A-312 equivalency upon completion of HUET training.
  - d. Track their employees' trips offshore to determine the frequency of HUET training.
- 4. **Employees** will upload their HUET course completion certificates to the IAT database (www.iat.gov). A step-by-step guide that explains how to upload the HUET certificates is located at <a href="https://www.iat.gov/help/equiv/equivalency\_guide.asp">https://www.iat.gov/help/equiv/equivalency\_guide.asp</a> After the employee uploads their HUET certificate OAS Training staff will review whether that training is equivalent to A312 and if so, will grant A312 equivalency (A-312E). This allows HUET training to be tracked in the IAT system.

#### **Procedures:**

Who needs to take HUET and MST? HUET is mandatory for all BSEE employees who are considered Routine Offshore Travelers as defined below.

**New** BSEE employees who are expected to fly offshore more than 4 times a year **must successfully complete HUET prior to flying offshore or within 30 days after** their report date. Extensions of this timeframe (for new employees only) may be approved in writing by the Regional Director but may not exceed 30 days.

Employees who find that during their employment with BSEE they need to travel offshore more than 4 time per year will take the appropriate IAT, HUET, and CA-EBS training as soon as possible, but prior to their 5<sup>th</sup> flight offshore in that 12-month period.

If an oil and gas operator's written policy requires more frequent HUET than established in this policy, the more restrictive requirement will apply to those BSEE employees flying in their aircraft.

**Passengers:** In regard to aviation training requirements BSEE recognizes three categories of

passengers: Visitors, Non-Routine Offshore Travelers, and Routine Offshore Travelers.

### 1. Visitors & BSEE Non-Routine Offshore Travelers:

- a. **Visitors** are defined as non-BSEE personnel who are not expected to fly on BSEE aircraft more than 4 times per year (e.g., VIPs, other Government Agency personnel, media, contractors, etc.).
- b. **Non-routine offshore travelers** are defined as BSEE personnel who are not expected to fly on BSEE aircraft more than 4 times per year (e.g. Regional and Headquarters staff)
- c. Visitors and non-routine offshore travelers do not have HUET or other aviation training requirements. However, they must receive a safety briefing from the pilot and are encouraged to take HUET and CA-EBS training.
- **2. Routine Offshore Travelers:** BSEE employees who fly <u>5 or more times</u> per year are required to complete initial HUET before flying offshore and complete a full refresher HUET course every 4 years.

After a Routine Offshore Traveler completes the HUET and MST courses four times they will, with their Regional Director's approval, have the option to participate in a modified HUET/MST curriculum every other 4-year cycle. While participating in the full range of HUET/MST activities is encouraged, individuals must complete the academic training every four years.

NOTE – If a Routine Offshore Traveler's CA-EBS is not current to OPITO standards they are prohibited from being issued, or using, CA-EBS.<sup>77</sup>

Individuals may elect to participate in:

- 1. Academic training only; or,
- 2. Academic and swimming portion; or,
- 3. Academic, swimming, and the Modular Egress Training Simulator (METS) without inversion.

The individual's request to participate in less than the full HUET/MST training, and the Regional Director's approval, will be documented in writing<sup>78</sup> and will be maintained in the individual's training records. Copies of HUET/MST waiver requests and approvals will be maintained by the RAM who will provide copies to the NAM.

<sup>78</sup> See Appendix C.2 for a sample request format.

<sup>&</sup>lt;sup>77</sup> The intent of this policy is to specifically enforce compliance for Routine Offshore Travelers. Visitors and Non-Routine Offshore do not have HUET or CA-EBS training requirements but are required to be briefed by the pilot on egress and CA-EBS safety before each flight. This reduced level of training **DOES NOT** apply to Routine Offshore Travelers

Following a modified HUET/MST cycle the employee must complete the full HUET/MST program on the next 4-year cycle

Additionally, Regional Directors, or their approved designee, may grant a temporary extension of no more than 30 days to allow personnel to complete their HUET requirements. Routine Offshore Travelers typically include:

- 1. Inspectors, series 1801.
- 2. Field Engineers, series 0881.
- 3. Petroleum Engineering Technicians, series 0802 (Pacific Region).
- 4. Supervisory Inspectors, series 1801.
- 5. Senior District Engineers, series 0881.
- 6. Scientists/Environmental/Operational Analysts, series 0301.

Credit for HUET courses completed prior to being hired by BSEE. Newly hired BSEE employees may request credit for HUET courses they completed in the 4 years prior to being hired by BSEE.

Review process to give credit for HUET courses completed prior to employment by BSEE:

- 1. Newly hired BSEE employees requesting credit for HUET courses completed prior to being hired by BSEE will present their HUET course completion certificate to their supervisor and request credit. Note after October 1, 2020 completion of an OPITO approved, in water, CA-EBS course is required when a Routine Offshore Traveler participates in their regularly scheduled T-HUET training.
- 2. The supervisor will review the request and if the supervisor approves, will forward a written request, along with the individual's course completion certificate to the District Manager (DM).
- 3. DM will review the request and if he/she approves, will forward a written request, along with the individual's course completion certificate, to the RAM.
- 4. The RAM will coordinate with the facility that conducted the HUET training and will review the course syllabus against BSEE's requirements established in this aviation management plan.
  - a. If the course syllabus meets or exceeds BSEE's requirements the RAM may recommend approval of the request and will forward their findings to the NAM.
  - b. If the course taken does not meet BSEE requirements the request will be denied, and

- c. the requestor's RAM and supervisor will be notified.
- 5. The NAM will consider the recommendations of the RAM and DM and will notify the RD in writing of their recommendation.

Consequences of Not Completing HUET: A BSEE employee who does not complete the classroom training and/or minimum in-water requirements in accordance with this procedure is not permitted to fly offshore. Successful completion is defined as participating in the combination of classroom training and a minimum number of simulated in-water exercises as defined by the OPITO curriculum. Managers/Supervisors may allow employees who do not successfully complete initial or refresher HUET to retake the training. BSEE employees who do not maintain the HUET currency requirements established in this policy shall not be assigned to offshore flights and may, on a case-by- case basis, be subject to personnel actions including reassignment to another position that the employee is qualified to perform.

**Medical**. HUET may include physically demanding and potentially stressful elements. OPITO requires all personnel who participate in HUET to be physically and mentally capable of participating fully in the training. OPITO-approved training centers are required, as a minimum, to ensure that prior to participating in practical exercises the trainee either:

- 1. Possess a valid, current offshore medical certificate or
- 2. Possess an employing company approved medical certificate equivalent to an offshore medical certificate, (BSEE inspectors must be medically cleared <sup>79</sup> (per 5 CFR 339)) or
- 3. Undergo medical screening by completing an appropriate medical screening form provided by the OPITO-approved center (a list of medical conditions which could be included in a medical screening form is available from OPITO).

The OPITO-approved training facility keeps a record of the delegate's/candidate's declaration of fitness in accordance with their document control policy/ procedures.

The employee must provide a copy of the certificate of completion issued by the training facility to their supervisor AND upload the certificate to the IAT system as an equivalency to the A-312 course (Water Ditching and Survival). This will allow HUET compliance to be tracked in IAT. There is a step-by-step guide on how to upload completion certificates for course equivalency at: <a href="https://www.iat.gov/help/equiv/equivalency\_guide.asp">https://www.iat.gov/help/equiv/equivalency\_guide.asp</a>.

The supervisor will ensure that the certificate of completion is maintained as part of the employee's official training or personnel record.

**Waivers.** Request for waivers to HUET requirements will be routed through the employee's chain of command to the RD for approval. Copies of the approval must be submitted to NAM in a timely manner. Examples of potential waivers might include use of a training facility or program that is not certified by OPITO.

<sup>&</sup>lt;sup>79</sup> Refers to those employees enrolled in the BSEE Medical Standards Program and have been cleared to perform their duties including offshore travel.

**Cold Water Survival Training:** BSEE personnel working or traveling over water temperatures that are likely to be less than 50°F will be equipped and trained for cold water survival. Cold water survival training should provide personnel with the knowledge, skills, and techniques necessary to increase survival following aircraft ditching emergencies.

A Cold-Water Survival training facility should provide at a minimum the following instructional elements:

- 1. Hazards and emergencies associated with aircraft and personnel during overwater operations in cold water environments (including coping with physical, psychological, and physiological stress).
- 2. Safety and survival equipment requirements and utilization
- 3. Personal rescue techniques and use of life rafts, signaling devices, and other survival equipment
- 4. Compressed Air Emergency Breathing Systems (CA-EBS) inspection and use
- 5. Helicopter underwater escape using a METS (minimum of 4 dunks)
  - a. Escaping through a window opening which is underwater, from a partially submerged helicopter (without operation of a push out window).
  - b. Escaping through a window opening which is underwater, from a partially submerged helicopter (including the operation of a push out window).
  - c. Escaping through a window opening which is underwater, from a capsized helicopter (without operation of a push out window).
  - d. Escaping through a window opening which is underwater, from a capsized helicopter (including the operation of a push out window)
- 6. Boarding an aviation life raft from water.

For additional specific cold-water training requirements, equipment, or procedures please refer to the BSEE Alaska OCS Region Aviation Management Plan or contact the Alaska OCS Region Aviation Manager Michael Jordan (<u>michael.jordan.@bsee.gov</u>)

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### Appendix C.2

### **OPITO CA-EBS Training Requirements**

BSEE routine offshore travelers in the Gulf of Mexico and Pacific Regions are required to take the OPITO T-HUET and CA-EBS training initially and every 4 years thereafter. Alaska Region routine offshore travelers HUET and CA-EBS requirements are listed in Section 3 (Aviation Policy) and Section 5 (Aviation Training).

### OPITO CA-EBS<sup>80</sup> training requires:

Following explanations and demonstrations by training staff delegates will demonstrate:

- 1. Deploying CA-EBS (above the water surface) and breathing from the CA-EBS in a pool, face down in shallow water (at a maximum depth of 0.7m, measured at the chest)
- 2. Deploying CA-EBS (below the water surface, face down in a pool in shallow water) and clearing the mouthpiece by exhaling under the water surface (at a maximum depth of 0.7m, measured at the chest)
- 3. Deploying CA-EBS (below the water surface, face down in a pool in shallow water, using opposite hand to previous exercise) and clearing with purge button under the water surface (at a maximum depth of 0.7m, measured at the chest)
- 4. Deploying CA-EBS (above water surface), in a pool and breathing from CA-EBS underwater in a vertical position (at a maximum depth of 0.7m, measured at the chest)
- 5. Deploying CA-EBS (underwater), in a pool and breathing from CA-EBS underwater in a vertical position (at a maximum depth of 0.7m, measured at the chest)
- 6. Deploying CA-EBS (underwater), in a pool, breathing from CA-EBS underwater, and moving along a horizontal rail for a period of no less than 30 seconds, including a change in direction (at a maximum depth of 0.7m, measured at the chest)

Training Staff must directly supervise delegates during any underwater ascent using CA-EBS equipment to ensure that the delegate exhales during the ascent.

<sup>&</sup>lt;sup>80</sup> Current OPITO CA-EBS training requirements are found at <a href="https://downloads.opito.com/downloads/Compressed-Air-Emergency-Breathing-System-CA-EBS-delivered-in-conjunction-with-T-BOSIET.THUET.TFOET-Revision-0-Amendment-1-January-2020.pdf?mtime=20200514101335&focal=none</a>

### **Appendix C.3**

### Sample Request for Modified Helicopter Underwater Egress Training (HUET)

Modified HUET/MST Training Curriculum Application Employee

Name:	-
Office/Section:	_
(Appendix C.1) for Helicopter Underwater l	etlined in the National Aviation Management Plan Egress Training, I am requesting your approval to utilize ing (MST) cycle. I have the skills necessary to coordinate involved in an emergency water landing.
	r since my position description and/or job duties require year. The most recent dates of this training are as follow:
1st HUET/MST training date: 2st HUET/MST training date: 3st HUET/MST training date: HUET/MST training date: HUET/MST training date:	3rd 4th
I am requesting approval to participate in (p Academic training only Academic and swimming porti Academic. swimming, and the without inversion	
I understand that after this HUET/MST trainnext 4-year cycle.	ning, I must complete the full HUET/MST program on the
Employee Signature	Date
<b>Supervisory Concurrence:</b>	
Agree Disagree	

1st Level Supervisor Name	Signature	Date
AgreeDisagree		
2nd Level Supervisor's Name	Signature	Date
AgreeDisagree		
District Manager or Level Supervisor's Name	Signature	Date 3rd
Approval of Application: Approved Disapproved		
Regional Director's Name	Signature	

Note: A copy of the completed and signed Modified HUET/MST Training Curriculum Application shall be forwarded to the appropriate RAM and the NAM.

### **Interagency Aviation Training (IAT) Program**

### **BACKGROUND INFORMATION:**

**Overview**: BSEE is committed to be a leading force in improving the safety of the offshore oil and gas industry. Aviation plays an essential role in our ability to conduct our mission but flying offshore comes with inherent risks. One way we can minimize those risks to our employees and our mission, and set an example for industry, is by being properly trained.

Whether in a position that requires flying, or supervising those who fly, the Department of the Interior (DOI) and BSEE have established minimum training requirements to enhance our employees' ability to safely and effectively use our aviation resources. Supervisors and managers need to ensure they are knowledgeable of the inherent risks in our aviation operations and have provided aviation users with the necessary skills and training to successfully conduct aviation operations.

This SOP addresses only BSEE's IAT Program requirements in accordance with DOI policy for aviation training found in OPM 04. Helicopter Underwater Egress Training (HUET) program requirements are addressed separately in Appendix C.1. The DOI water ditching and survival course (A-312) does not use the Modular Egress Training Simulator (METS) as required by BSEE policy, and therefore cannot be used by BSEE employees to fulfill the HUET requirement but can be used as refresher training between the 4-year HUET requirement.

Vendor employees are not required to take IAT courses unless specified by a BSEE aviation contract.

**Interagency Aviation Training**: Department of Interior (DOI) policy for aviation training is found in <u>OPM 04</u>. OPM 04 requires specific training for personnel engaged in aviation operations. These requirements are amplified in the <u>IAT Users Guide</u> and are dependent on the individual's aviation job function.

BSEE personnel will comply with all requirements established by DOI policy for the position(s) they hold. An individual may fit into more than one category (i.e. be a supervisor as well as a passenger) and must meet the IAT requirements for each category.

**Management's Role**: The education, training, and qualification of DOI personnel at all organizational levels are the responsibility of management. Managers and supervisors must be aware of Departmental policy as it relates to aviation programs supporting BSEE missions for which they are responsible.

Supervisors will ensure that employees under their authority receive the level of aviation safety training required by Departmental policy <u>before participating in aviation operations</u>. The education and training requirements listed in OPM 4 are the minimum required by the Department for promoting aircraft accident prevention awareness and developing operation

and management skills. BSEE, at the national or lower organizational levels, may increase but not decrease OPM 04 requirements.

BSEE managers will provide <u>time and resources</u> for education and training as specified in <u>OPM</u> 04.

### **PROCEDURES:**

NOTE: For aviation management and training purposes BSEE considers the terms "passengers" and "offshore travelers" to be equivalent.

### Who needs to take IAT courses?

**Passengers**<sup>81</sup>: In regard to aviation training requirements BSEE recognizes three categories of passengers: Visitors, Non-Routine Offshore Travelers, and Routine Offshore Travelers. The number of offshore trips the individual flies or is reasonably expected to fly, on an annual basis determines their aviation training requirement(s).

- 1. Visitors are defined as non-BSEE personnel who are not expected to fly on BSEE aircraft more than 4 times per year (e.g., VIPs, other Government Agency personnel, media, contractors, etc.).
- **2. Non-Routine Offshore Travelers** are defined as BSEE personnel who are not expected to fly on BSEE aircraft more than 4 times per year (e.g. Regional and Headquarters staff)
- **3.** Visitors and non-routine offshore travelers do not have aviation training requirements. However, they must receive a safety briefing from the pilot and are encouraged to take IAT, HUET, and CA-EBS training.
- **4. Routine Offshore Travelers** are BSEE employees who fly <u>5 or more</u> times per year. Routine Offshore Travelers are required to take the IAT courses outlined in Figure 1. These courses are available online (<u>www.iat.gov/</u>) or via webinar or classroom instruction and must be taken initially and every three years thereafter (unless otherwise noted).

**Note to IAT Aviation Managers and Unit Aviation Training Administrators (UATA):**BSEE Routine Offshore Travelers, as defined above, should be assigned that role in IAT, rather than the "Aircrew Member"

<sup>&</sup>lt;sup>81</sup> 350 DM 1 defines passenger as "Any person aboard an aircraft who does not perform the function of a flight crewmember or aircrew member"

role, which was used prior to 2018.

All passengers on BSEE aircraft shall receive a safety briefing by the vendor pilot before each offshore mission. At a minimum this briefing will include the items listed in 14 CFR 135.117, 351 DM 1.5B, the applicable aviation contract, and Appendix H.1.

In those instances where multiple, short flights are to be conducted, the briefing does not need to be repeated unless new passengers come on board.

### **Required IAT Training for BSEE Passengers**

A-100	Basic Aviation Safety (online)
A-200	Mishap Review (online)
A-310	Overview of Crew Resource Management (webinar or classroom)

Figure 1. IAT requirements for Routine Offshore Travelers

NOTE: HUET training is not an IAT course but is tracked using the IAT system as an equivalency to A-312, Water Ditching and Survival).

**Supervisors:** BSEE supervisors of employees who use aircraft to accomplish BSEE missions (i.e. Supervisory Inspectors) are required to take Aviation Management for Supervisors (M-3), Mishap Review (A-200), and Personal Responsibility and Liability (A-302)<sup>82</sup> (see Figure 2).

Both the M-3 and the A-200 courses are available online and must be taken initially upon assignment and every three years thereafter.

### **Required IAT Training for BSEE Supervisors**

M3	Aviation Management for Supervisors (online)
A200	Mishap Review (online)
A302	Personal Responsibilities and Liabilities (webinar or classroom)
Figure 2.	IAT requirements for Supervisors.

**Managers**: BSEE Managers who are responsible and accountable for using aviation resources to accomplish bureau programs (i.e. Regional and District Managers, Regional Supervisors, etc.) must complete the M2 Aviation Management Line Managers Briefing (or M-3 Aviation Management for Supervisors), and Personal Responsibility and Liability (A-302)<sup>83</sup> every 3 years.

### Required IAT Training for BSEE Managers

M2	Aviation Briefing for Managers (webinar or classroom)
A302	Personal Responsibilities and Liabilities (webinar or classroom)

<sup>&</sup>lt;sup>82</sup> Because the A-302 course is only available in a classroom or via webinar the deadline to complete the A-302 course is extended for all supervisors and managers until December 31, 2020.

C.4.3

<sup>83</sup> See footnote above regarding deadline to complete A-302

Figure 3. IAT requirements for Managers.

*Note:* The M3 is more convenient because it is available online while the M2 may be more suitable for senior leaders because it can be tailored to their needs.

**Aviation Managers:** BSEE Aviation Managers (i.e. National and Regional Aviation Managers, Aviation Safety Managers) are required to take the courses listed in Figure 3. Aviation Managers have the most comprehensive IAT requirements of all BSEE employees. Many of these courses are available online; however, several courses are only available via instructor-led instruction.

### Aviation Managers shall:

- 1. Complete all courses that are available online or via webinar within 6months of assignment.
- 2. Complete all OPM 4 requirements within 12 months of assignment.
- 3. Attend an OAS-sponsored ACE (Aviation Centered Education) within 12months of assignment.

Waivers to extend time for an aviation manager's requirements will be forwarded through the Aviation Manager's chain of command to the Chief, OORP for approval.

	Aviation Manager Required Training			
The Aviation I	The Aviation Manager role is defined as individuals with aviation			
management responsibilities for a unit, State, regional or national level				
	he focal point for aviation services and management. These			
_	ositions as unit aviation officer (UAO), State, regional and			
national aviation	on program managers, and helicopter and fixed-wing			
A-100	Basic Aviation Safety			
A-103	FAA NOTAM System			
A-107	Aviation Policy and Regulations I			
A-110	Aviation Transportation of Hazardous Materials			
A-112	Mission Planning and Flight Request Process			
A-115	Automated Flight Following			
A-200	Mishap Review (initial and every 3 years)			
A-202	Interagency Aviation Organizations			
A-203	Basic Airspace			
A-204	Aircraft Capabilities and Limitations			
A-205	Risk Management I			
A-208	Aircraft and Pilot Approval			
A-218	Aircraft Pre-Use Inspection			
A-302	Personal Responsibility and Liability			
A-303	Human Factors in Aviation			
A-305	Risk Management II			
A-306	Aviation Contract Administration Parts I & II			
A-307	Aviation Policy and Regulations II			
A-310	Crew Resource Management			
A-311	Aviation Planning			

Figure 3. Aviation Manager IAT requirement

**How to take IAT courses:** To receive credit for IAT classes you must first set up an account through the <u>IAT website</u> (Figure 4). After setting up your IAT account you can login and begin taking the required courses. The A-100, A-200, and M3 classes are available online.

The A-302, A-310 and M2 courses are available via webinar or via classroom instruction. Contact your RAM or the NAM with questions on A-302, A-310 or M2.



Figure 4. IAT website.

On the role selection page select "Student" (figure 5) and at the Student Home Base select "Find a Course" (figure 6). Select the course you want to take from the drop-down menu.



Figure 5. Selection of IAT role



Figure 6. Selection of IAT course.

**Supervisory oversight responsibilities:** Supervisors and Managers are responsible to ensure employees under their authority take initial and refresher IAT training required by

#### DOI and BSEE.

The IAT website also allows supervisors to view their employees IAT status (Figure 8). Supervisors select "Supervisor" on the role selection page (figure 5) and then select the "Employee Compliance" tab to see their employee's IAT status. For questions please contact your RAM or the NAM.

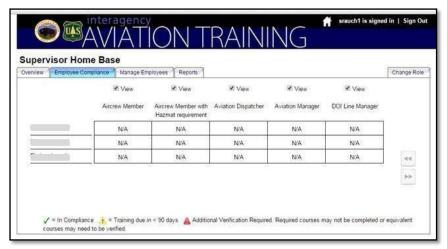


Figure 7. Sample Supervisor's Home Base.

### POINTS OF CONTACT:

### Office of Aviation Services (OAS):

• Keith Raley, Chief, Aviation Safety, Training, and Program Evaluations (keith\_raley@ios.doi.gov), 208 433-5071.

### OORP:

- Andrew Wareham National Aviation Manager, andrew.wareham@bsee.gov, (907) 334-5278 or (c) (571) 585-4770GOMR:
  - Eric Brewton, Regional Aviation Manager, <u>eric.brewton@bsee.gov</u>, 504-736-7598.

### POCSR:

- Brian Little, Regional Aviation Manager, <u>brian.little@bsee.gov</u>, 805-384-6308.
- Chet Miller, POCSR Regional Aviation Safety Manager, (<a href="mailto:chet.miller@bsee.gov">chet.miller@bsee.gov</a>), 805-479-5022

### Alaska OCS Region:

• Michael Jordan, Regional Aviation Manager, <u>michael.jordan@bsee.gov</u>, 907-334-5312, cell 907-382-7814.

### Appendix C.5

### M2 – Aviation Management Line Managers Briefing Syllabus<sup>84</sup>

### 1. Aviation Organization

- a. Roles, Responsibilities and Relationships. (Discuss the various groups and how they affect the BSEE's aviation mission(s)).
  - OAS.
  - EAB, EAC and EAS.
  - BSEE Aviation leadership, NAM, RAMs.
  - Interagency and Industry groups (IATS, HSAC, API, OPITO)
- b. Objectives of BSEE's aviation program (How aviation supports the BSEE's mission).
- c. Authorities.
  - Discuss policies governing the organization's use of aviation i.e. DMs, OPMs, Handbooks/Guides, NAMPs/RAMPs.
    - o DMs are policy approved at Departmental level.
    - o OPMs and Handbooks are policy which are reviewed and approved by OAS Director.
    - o Field users can provide input through the EAS/EAC to OAS on aviation policy (OPM 10).
  - Discuss relationship of policy documents to guidance documents i.e. Guides, Alerts, Bulletins, etc.).
  - Discuss OPM 6 requirements.
    - o National Aviation Management Plan (NAMP) required by OPM 6, Appendix 1.
      - BSEE Director reviews and approves the NAMP at least every 3 years. This requirement has been delegated to the Chief, OORP.
      - National Aviation Manager (NAM) reviews and makes interim revisions to the NAMP annually.
    - o Regional Aviation Management Plans (RAMP)
      - Require by BSEE policy
    - o Project Aviation Safety Plans (PASPs) <u>will be developed for all special use missions IAW OPM 6 Appendix 2 and the NAMP.</u>
      - PASPs are developed by qualified Project Aviation Managers.
      - The level of supervisor/manager approval is based on the risk level as determined by the written risk assessment within the PASP.
- d. Revision schedule (Discussed above).
- e. BSEE-specific organizational requirements (Discussed above).
- 2. Aviation Administration.
  - a. Aviation contracts.

<sup>&</sup>lt;sup>84</sup> Policy for the M2 Aviation Line Managers Briefing is found in Section 4 D., page 65.

- End-use vs. flight service contracts
- Caution on unmanned aerial systems (UAS) in contract
- b. Acquisition (fleet) (not currently applicable).
- c. Aircraft Use reports and payments processes.
- d. Record keeping requirements.
  - Discuss data and processes related to the Helicopter Cost and Utilization Report
- e. Bureau-specific administrative requirements (Discuss as applicable).

### 3. Aviation Safety

- a. Policy (SMS, top-down buy-in, safety culture structure, etc.). Discuss;
  - The role of managers/leaders in establishing the organization's safety culture.
  - Need for visible involvement of managers/leaders.
- b. Risk Management (programs, procedures, tools, etc.).
  - Discuss the role of managers/leaders in:
    - o Requiring risks to be managed.
    - o Communicating the leader's risk tolerance.
    - o Establishing risk approval guidance.
    - o Enforcing continuous re-evaluation of risks during missions.
- c. Promotion (education, awareness, reporting--i.e., SAFECOM, awards).
  - Discuss DOI and BSEE aviation operations/safety awareness tools.
    - o DOI/OAS Safety Alerts, Accident Prevention Bulletins, Tech Bulletins, Lessons Learned (what they are and where to find them).
    - o Mishap Review (A-200).
      - What it is and where to find it.
      - Who needs to take A-200 (routine and non-routine flyers, supervisors, managers and aviation managers).
      - Taught by OAS and Forest Service investigators who investigated the mishaps and can provide insights.
  - Discuss Regional aviation safety meetings.
    - o Process (planning, conduct, documentation).
    - o Managers/leaders role in meetings/councils.
    - o Frequency (minimum monthly).
  - Discuss aviation hazard reporting/SAFECOM program.
    - o Discuss importance of hazard reporting to accident prevention.
    - o Discuss manager's/leader's role in promoting active reporting culture.
    - o Compare/contrast OAS role with BSEE's role.
    - o Explain the process and flow of SAFECOM reports.
    - o Explain appropriate and inappropriate use of SAFECOM reports.
      - Use of SAFECOM to report accident prevention actions.
      - Restriction on use for adverse action.

- Use of SAFECOM to initiate a collateral investigation.
- o Review significant SAFECOMs and hazard reporting trends.
- Discuss Safety Awards Program.
  - O Discuss importance of manager's/leader's role in promoting positive recognition/just culture.
  - o Explain DOI Aviation Awards Program (352 DM 4), types of awards, and process.
  - o Discuss supplementary organizational awards/recognition.
  - o Discuss importance of timeliness and manager/leader presentation of award.
  - o Discuss publicity of award and awardee(s) via Airward News, BSEE Public Affairs, etc.
- d. Assurance (mishap response, program evaluations, accident investigation, ALSE).
  - Discuss DOI policy on aviation mishap response planning.
    - o Introduce the Interagency Aviation Mishap Response Guide & Checklist.
    - o Role of OAS Safety and OAS Regional SMEs/POCs.
  - Discuss BSEE and Regional aviation mishap response **plan**(s).
    - o Who needs immediate notification, secondary notification, general notification.
    - o Documentation requirements for training and real emergencies.
    - o Aviation Incident Response Exercises (AIRE) and/or other drills.
      - Process (planning, conduct, post drill review, documentation).
      - Manager/leader role.
      - Frequency.
    - o Involvement of vendors in mishap response plans and drills.
    - o Mishap response plan update frequency.
  - Discuss response to **actual** aviation mishaps.
    - Explain (define) the terms aircraft accident, aircraft incident, incident-with-potential (IWP), mishaps (49 CFR 830.2 and 350 DM 1).
    - o Immediate actions to protect personnel, property, and evidence (in that order).
      - Discuss using the Interagency Aviation Mishap Response Guide & Checklist guidance and BSEE policies.
      - Explain the NTSB requirement for preservation of evidence (49 CFR 831.10, 352 DM 3, and specific contract).
      - Explain restrictions to access and release of wreckage (49 CFR 831.12, 352 DM 3, and specific contract).
    - o Immediate notification requirements (OAS, BSEE chain of command).
      - Role of manager/leader.
      - Role of staff (to include NAM and RAMs).
      - Notify OAS using 888-4MISHAP.
      - Role of OAS in notification of NTSB and/or FAA.
      - Discuss the relationship between reporting accurate information and the timely reporting of information.
    - o Control of release of information.
      - Role and legal authority of NTSB over release of information during aircraft accident investigation (49 CFR 831.13).
      - Role of manager/leader.
      - Role and limitations on BSEE Public Affairs.
      - Briefing to organizational personnel.
      - Next of kin notification process.

- Conduct of investigation.
  - o Primacy of NTSB in aircraft accident investigations (BSEE/law enforcement investigations are secondary unless criminality is suspected see 49 CFR 831.5 and 831.9).
  - o Role of FAA, OAS, and BSEE in an aircraft accident investigation (49 CFR 831.11).
  - Support to investigation expected of BSEE.
    - Administration.
    - Logistics.
    - Transportation.
    - Facilities.
    - Access to personnel.
  - o Similarities and differences in the investigation of aircraft <u>accidents</u> and less serious aviation mishaps.
  - Accident reports.
    - NTSB preliminary and final reports.
    - OAS preliminary alert and final reports.
    - Proper use of reports/lessons learned.
- Aviation Program Evaluations (APE).
  - o DOI aviation program evaluations (APE) (352 DM 2).
    - 5-year cycle for all Region's aviation programs.
    - Process (scheduling, process, report, and corrective actions).
    - Role and participation of manager/leader and staff.
    - Review of previous APE findings, recommendations, and corrective actions.
  - o Bureau/Region internal aviation program evaluation.
- Aviation Life Support Equipment (ALSE).
  - o Departmental policy and guidance (351 DM 1, ALSE Handbook, Aviation Helmet Standard, DOI Flight Helmet Users Guide).
    - Routine (point to point) flights (350 DM 1, ALSE Handbook and NAMP)
      - Flight helmet.
      - Personal Flotation Device (PFD).
      - Hearing Protection.
      - Undergarments
    - Special Use flights (OPM 29, ALSE Handbook and NAMP).
      - Fire-resistant clothing.
      - Leather or approved non-leather boot.
      - Fire-resistant flight glove.
    - Eye protection and use of helmet visor
    - Anti-exposure garment (wet or dry suits).
    - Aircraft Survival and/or First Aid Kits.
  - BSEE ALSE program.
    - Manager/leader role.
      - Waivers. BSEE Director has discretionary authority to grant ALSE waivers (ALSE Handbook para 1.5).
        - o Waiver authority has been delegated to the Chief, OORP.
        - Copy of waiver and written delegation (if applicable) must be provided to OAS Safety and OAS Regional Directors.

- Waivers will specify safety or security concern, the requirement being waived, the duration and dates of waiver, risk mitigations in lieu of the prescribed ALSE and supporting rationale.
- Programmatic oversight and enforcing standards.
  - o If required ALSE is not available for an individual the individual is not be permitted to fly.
  - $\circ$  If required aircraft-mounted ALSE is not available the aircraft is considered unavailable and will not be used (and we .
- Funding (spares, replacements, parts, training).
- Supervisor ALSE responsibilities:
  - o Provide personnel with appropriate and serviceable ALSE.
  - o Provide employee training on the proper use of ALSE equipment to include maintenance, inspection, storage, and disposal.
  - Ensure all ALSE is inspected and maintained in accordance with DOI and manufacturer guidance. Records of ALSE inspections are maintained.
  - Ensure personnel who inspect and maintain ALSE are properly trained and designated in writing.
- Individual responsibilities for ALSE:
  - o Inspect ALSE provided for condition and serviceability before and after each flight.
  - Wear ALSE properly.
  - o Report any discrepancies with ALSE to their supervisor and to the ALSE technician.
- e. Documentation requirements (Discuss as applicable).
- f. BSEE-specific safety requirements (PFDs, EBS, cold weather requirements).
- g. Reporting airspace conflicts through the SAFECOM system (Discuss as applicable).
- 4. Aviation Operations.
  - a. Special-use (oil spill or post-hurricane reconnaissance, low-level, mountainous, etc.)
  - b. Fixed wing (Discuss as applicable).
  - c. Rotary wing (Discuss as applicable).
    - Visual Flight Rules (VFR).
    - Instrument Flight Rules and policies (IFR).
    - Environmental (OCS, cold weather operations, etc.).
    - Airspace (controlled/uncontrolled, congested airspace, Fire Traffic Areas, Military Training Routes, Restricted Areas, etc.).
    - Contract issues.
    - New or changed missions/risks.
  - d. Fleet operations (not applicable unless BSEE buys UAS).
  - e. Cooperator operations (i.e. USCG) (Discuss as applicable).

- f. Passenger transport.
  - Passenger approval process.
    - o SES.
    - o VIP.
    - o Headquarters.
    - o Non-Feds.
    - o Coast Guard.
  - Training for passengers.
    - O Visitors fly 1-2 times a year require pilot briefing only
    - o Non-routine, and routine passengers require A100, A200, and A310 initially and every three years thereafter.
  - Role of Mission Chief.
- g. Hazardous materials transport.
  - Responsibilities when transporting HAZMAT by air.
    - o Since BSEE contracts are civil aircraft operations 49 CFR 171.2 rules apply.
      - When possible have O&G operator ship HAZMAT.
      - In other cases notify the pilot and comply with the aviation service provider's HAZMAT procedures.
    - o DOT exemption (DOT Special Permit 9198) is not applicable to BSEE.
- h. Flight planning (policies, dispatching) (Discuss as applicable).
  - DOI requirements.
  - Contract requirements
- i. Flight following (policies, mishap response operations).
  - BSEE policies.
  - Common errors/SAFECOM experience.
- j. Unmanned systems
  - Discuss OPM 11 requirements.
  - Use of End-Product contract.
  - Future BSEE use
  - OAS SMEs/POCs.
- k. Documentation requirements (Discuss as applicable).
- 1. Bureau-specific operational requirements (Discuss as applicable).
- 5. Aviation Training.
  - a. Explain the Department's IAT system:
    - Positional training requirements.
    - How/where to get training.
    - How managers/leaders can get IAT reports, type of information available.
  - b. Management responsibilities.
    - Understand and enforce aviation training requirements.

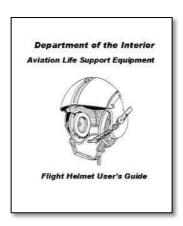
- c. Interagency Aviation Training (IAT).
  - DOI requirements in OPM 4.
  - BSEE requirements in NAMP
  - Discuss individuals who are not complete/current with their training requirements are not qualified/allowed to perform those duties (to include supervisors and managers).
- d. HUET and CA-EBS training.
  - DOI does not require HUET but does offer A312 (describe difference between HUET and A312).
  - BSEE HUET requirements in NAMP
  - Adoption of OPITO standards for T-HUET with CA-EBS
  - Cold water HUET can replace T-HUET but T-HUET cannot replace cold-water HUET.
- e. Contracting Officer's Representative (COR) requirements.
  - COR training.
  - COR authority, limitations, and responsibilities.
- f. Documentation requirements (Discuss as applicable).
- g. BSEE-specific training requirements (see HUET and CA-EBS above).
- 6. Aviation Security.
  - a. Security of aviation facilities, aircraft, aviation fuel is the responsibility of the aviation service provider per their contracts
- 7. Airspace Coordination.
  - a. Introduction to interagency process (Ref: Interagency Airspace Coordination Guide).
  - b. Definitions (e.g., describe NOTAMs, FTAs, TFRs, and procedures involved, etc.).
  - c. Emergency Security Control of Air Traffic (ESCAT) procedures.
  - d. Bureau-specific airspace requirements (Discuss as applicable).
- 8. Project Aviation Safety Planning (PASP) Requirements (Discuss as applicable).
  - a. PASP <u>required</u> for <u>all special use</u> missions (OPM 29).
  - b. Minimum elements of a PASP will include items below.
    - If an element does not apply the project mark N/A.
    - Discuss the elements as applicable to the organization and manager/leader's needs. (See OPM 6 for details).
      - Project Name and Objectives.
      - Justification.

- Project Dates.
- Location.
- Projected Cost of Aviation Resources.
- Aircraft.
- Pilot.
- Participants Requires dates of last aviation training, and the individual's project responsibilities.
- Communication Plan, Flight Following and Emergency Search and Rescue.
- Aerial Hazard Analysis An aerial hazard analysis with attached map will be provided to the pilot before the flight.
- Protective Clothing and Equipment/ALSE Required for the particular operation.
- Weight & Balance / Load Calculations.
- Risk Assessment/SMS.
- Signatures Line Manager or appropriate level of approval based on the risk assessment or other bureau requirement.

## 9. WHAT ARE YOUR QUESTIONS?

## Appendix D.1

## SPH-5 Flight Helmet User Guide



The requirement for flight helmets and other aviation life support equipment (ALSE) begins in 351 DM 1 and expanded information is found in the DOI ALSE Handbook.

The DOI ALSE Handbook addresses the requirement for DOI personnel to wear flight helmets and types of flight helmets that are approved, but it does not address how the user should take care of the helmet, what to look for to determine whether the helmet is serviceable, and what to do if you think your helmet is not serviceable or needs repair. The Flight Helmet User's Guide was developed in 2008 to inform and assist aviation personnel in the proper wear, care, and maintenance of an SPH-5 flight helmet.

The flight helmet user is responsible to inspect the helmet for serviceability before each flight. If your flight helmet requires repair or evaluation by a technically qualified person you should follow the policy in your Regional Aviation Management Plan. If you have questions contact either:

- 1. District ALSE Technician
- 2. Regional Aviation Manager.
- 3. BSEE National Aviation Manager.

Technicians within each Region/District can support users with semi-annual inspections.

*Inspections*. Inspections consist of pre- and post-flight inspections by the user, periodic/annual inspections and special inspections by an ALSE technician.

*Users* should familiarize themselves with the serviceability and inspection criteria found in this Guide and their respective flight helmets' manual.

An ALSE technician will complete hands-on training in the disassembly, inspection, repair, and reassembly of flight helmets. Acceptable training may be received from flight helmet

manufacturers, military, or other organizations that regularly inspect and repair flight helmets.

The following inspection criteria have been adapted from the Gentex SPH-5 helmet manual.

**Preflight Inspection**. Prior to each flight, the user will inspect the helmet assembly to see that it is serviceable and in good working order using table 1. This inspection will ensure that:

- 1. The helmet, liners and ear cup assemblies are fitted properly.
- 2. The chinstrap and nape strap are adjusted properly, and the retention assembly is attached to the helmet with the screws tightened securely.
- 3. The visor(s) operates properly and are clean and free of cracks or scratches.
- 4. All communication components are properly installed, and the earphones and microphone operate properly.
- 5. The overall condition of the helmet has been checked for serviceability.

**Post-flight Inspection**. After each flight, the user should note any component malfunction or damage to the helmet resulting from operational use. Affected components should be replaced (see Table 1).

**Periodic Inspection**. Users are responsible for ensuring that their helmet is clean and that all components are working properly. Periodic (scheduled) inspections should be conducted by an ALSE technician a minimum of annually using the inspection criteria in the manufacturer's manual.

**Special Inspection.** An ALSE technician will evaluate any government-owned flight helmet that is suspected of having been subjected to impact (i.e. hit by a rock or dropped), or other potentially damaging event. Following an aircraft accident or incident- with-potential the DOI Investigator-in-Charge will determine if the flight helmets involved require a special inspection

# Pre- and post-flight inspection checklist

COMPONENT	INSPECT FOR:
Helmet Shell	Cracks, holes, warping. Cleanliness.
Energy-Absorbing Liner	Worn or loose hook fasteners. Gouges, cracks, indentations.
Thermo-Plastic Liner (TPL)	Torn or damaged areas. Loose bond at edges. Worn cover.
Earcup Assembly	Cracked cup, broken or missing tab, torn earseal, worn earphone holder or spacer pad, or failed earphone. Cleanliness.
Retention Assembly (including nape strap and chinstrap)	Frayed or torn fabric, loose stitching, corroded or bent buckles or snap. Cleanliness.
Microphone, Boom, Cord, Swivel Assembly	Failed microphone; damaged or worn swivel or boom; damaged cord.
Communications Cord	Cuts, cracks, deteriorated insulation, general damage.
Visor Assembly	Cracks, scratches, loose knobs. Cleanliness.

Table 1

*Cleaning.* Clean the components of the SPH-5 helmet assembly in accordance with the procedures in Appendix E.2:

## **SPH-5 Flight Helmet Cleaning and Disinfecting Procedures**

**General**. The COVID-19 pandemic has raised the awareness, as well as the risk, of catching or transmitting a communicable disease in all aspects of our lives. In aviation, our aviation service providers are responsible for cleaning and disinfecting the buildings and aircraft we use but, it is up to us to ensure that items such as our flight helmets are also cleaned and disinfected regularly and in accordance with the manufacturer's guidance.

**Cleaning**<sup>85</sup>. BSEE ALSE technicians <u>and users</u> will clean SPH-5 flight helmets using the manufacturer's procedures in the Gentex SPH-5 manual (figure 1).

### **CLEANING**

Clean the components of the SPH-5 helmet assembly as follows:

Helmet shell and visor assembly (including visors, housing, track, spacers, and lock): Wipe with clean, soft cloth dampened with mild soap solution; rinse with clean water and allow to air dry.

<u>Earcups</u>, <u>cords</u>, <u>retention assembly</u>: Wipe with damp cloth; allow to air dry thoroughly.

<u>TPL cloth cover</u>: Machine wash (gentle cycle) or hand wash with warm water and soap; allow to air dry.

TPL plastic layers: Hand wash with soap and water; allow to air dry.

Figure 1. Cleaning procedures from the Gentex SPH-5 Manual

**Disinfecting**<sup>86</sup>. The procedures in the SHP-5 manual address cleaning the helmet, but not disinfecting it. To disinfect the SHP-5 helmets <u>Gibson and Barnes</u> Helmet Specialists recommended the following:

- To properly disinfect the helmets, you may follow the CDC guidelines at <a href="https://www.cdc.gov/coronavirus/2019-ncov/prepare/cleaning-disinfection.html">https://www.cdc.gov/coronavirus/2019-ncov/prepare/cleaning-disinfection.html</a>
- Wipe down the exterior of the helmet (shell, visor housing, visor lenses, etc.) using a cloth dampened with 70% isopropyl alcohol or Lysol.
- The soft interior portions of the helmet can be sprayed with a fabric safe disinfectant. The removeable liners can be handwashed with a mild detergent in warm water and left to air dry.

<sup>&</sup>lt;sup>85</sup> The CDC describes **Cleaning** as the removal of germs, dirt, and impurities from surfaces. It does not kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.

<sup>&</sup>lt;sup>86</sup> The CDC describes **Disinfecting** as using chemicals, for example, EPA-registered disinfectants, to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection.

- Replace the foam cover on the microphone in-between users when possible. You may also wash the foam cover using warm water and disinfectant soap by rubbing it between your fingers a few times and then letting it air dry.
- You can wipe down the mic element but be careful to not get any liquid into the element as it may cause damage.
- Wipe down the earseals with 70% isopropyl alcohol
- Skull caps can be washed w/ warm water on a light cycle.

NOTE: Skull caps are recommended for visitors. This will cut down on contact with head and the caps can be easily laundered between each use in a washing machine and then hung to dry.

- If you have the "bubble-wrap" style SCL liner, the cover can be removed and washed on light cycle and air dried.
- Other contact points such as the retention (chin pad, chin strap, nape strap, etc.) can be wiped down with an alcohol pad. The chin pad can be washed on a delicate cycle if needed.

### Summary.

- Clean the helmet in accordance with manufacturer guidance.
- Disinfect the helmet in accordance with CDC guidance for both soft/porous and non-porous surfaces.
- Launder items (if possible such as TPL liner) according to the manufacturer's instructions.
  - Use the warmest appropriate water setting and dry items completely or,
  - o Disinfect with an EPA-registered disinfectant.

## Appendix D.3

## Sample ALSE Waiver



### United States Department of the Interior

BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT

Alaska OCS Region 3801 Centerpoint Drive, Suite 500 Anchorage, Alaska 99503-5823

AUG 20 2012

Memorandum

To: James A. Watson

Director, Bureau of Safety and Environmental Enforcement

From: Mark E. Fesmire, J.D., PE Regional Director, Alaska Region

Subject: Waiver Request for the 2012 Flying Season

Under the provisions of DOI Aviation Life Support Equipment (ALSE) Handbook (paragraph 1.5B) the BSEE Alaska Region is requesting a waiver for the 2012 flying season from the DOI requirement that employees flying on Special Use aircraft wear a flight helmet (paragraph 2.1). The waiver is required because the design of the survival suit that Shell requires passengers to wear precludes the wear of the flight helmet.

#### Justification:

For the 2012 season BSEE employees will be flying on helicopters contracted by Shell. Shell requires all passengers to wear a Cold Water Helicopter Survival Suit. The suit provided to BSEE by Shell has a permanently attached neoprene hood. That hood, whether worn or rolled back off the head, prevents the proper wear of the flight helmet.

Shell's requirement is more stringent than DOI's policy which, for this type of flight, only requires an anti-exposure suit to be "readily available". Neither DOI nor BSEE specify the type of anti-exposure suit to be worn and no suits have been provided for employee use.

The Alaska Region requests a waiver to the DOI ALSE Handbook flight helmet requirement until such time an anti-exposure suit is available that allows the use of the flight helmet.

Approved from

Disapproved \_\_\_

James A. Watson Director

Date: 8/29/12

## **Compressed Air Emergency Breathing Systems (CA-EBS)**

**Background.** Helicopters forced to make emergency landings (ditch) offshore often capsize due to the combined effects of impact forces, structural damage, sea state, and their inherent high center of gravity. This can result in survivors having to egress from a submerged cabin that is obstructed, cold, disorienting, and with limited visibility. Immediate survival is often a function of how long it takes to egress and how long the individual can hold their breath. Adding to the risk is that cold water greatly reduces breath-hold time due to the gasp reflex<sup>87</sup>.

The UK's Civil Aviation Authority Publication (CAP) 1034 Development of a Technical Standard for Emergency Breathing Systems (May 2013) offers the following insights:

1.2 Drowning is the primary cause of death in helicopter water impact accidents. It is a well-documented fact that a helicopter will capsize and/or sink in a high proportion of water impact accidents<sup>88</sup>. The risk of capsize has been shown to be equally prevalent in controlled ditchings and water impacts<sup>89</sup>, but is increased by both high impact velocity and rough sea states (breaking waves in particular). In the event the helicopter does capsize or sink, the occupants must make an underwater escape. If capsize follows a ditching, it is anticipated that the helicopter floatation system will keep the helicopter at the water surface, giving the occupants a reasonable chance of making an escape. In the event of a crash, there is a high likelihood that the floats will either be damaged or will not be deployed. This means that the helicopter is much more likely to quickly sink, greatly reducing the chances of making a successful escape and increasing the likelihood of drowning...

1.3 To make a successful escape, the occupant must be conscious, mobile, and be familiar with escape procedures and escape routes. The risk of drowning is very high due to the fact that there is a mismatch between the time needed to escape from the inverted and possibly sinking helicopter and the time individuals can hold their breath underwater<sup>90</sup>. The level of risk is much higher in cold water due to the 'cold shock' response<sup>91</sup>. Cold shock greatly reduces the ability of individuals to control ventilation and breath-hold, such that they may not be able to hold a breath for long enough to make an underwater escape.

In temperate  $(25^{\circ}\text{C/77}^{\circ}\text{F})$  water temperatures, the mean breath-hold time of a large group of offshore workers was found to be  $40 \pm 21$  seconds (mean  $\pm \text{SD}$ ). In cold water  $(5\text{-}10^{\circ}\text{C/41-}50^{\circ}\text{F})$ , mean breath-hold time measured in small groups of subjects has been found to be close to 20 seconds but may be as low as 10 seconds in some individuals. This is less than the estimated time to escape from an underwater cabin. Under simulated conditions, underwater escape can take 25-30 seconds 25-30 seconds 25-30 seconds to escape from an

<sup>&</sup>lt;sup>87</sup> National Center for Cold Water Safety

<sup>&</sup>lt;sup>88</sup> Rice and Greear, 1973, Brooks, 1989, Clifford, 1996

<sup>89</sup> Clifford, 1996

<sup>&</sup>lt;sup>90</sup> Cheung et al, 2001

<sup>&</sup>lt;sup>91</sup> Tipton & Vincent, 1989, Tipton et al 1995; Tipton et al, 1997

<sup>92</sup> Bohemier et al, 1990, Coleshaw and Howson, 1999

### inverted helicopter<sup>93</sup>.

1.4 A number of factors other than cold will also increase the risk of drowning. Disorientation, particularly if the helicopter is inverted and it is dark, will slow down escape and increase the risk of drowning. Injuries and pain will incapacitate the individual, causing delayed reactions, possibly preventing release of the seat harness or greatly impairing mobility. Exits may be jammed or obstructed requiring an alternate escape route. All these factors increase the time spent underwater attempting to make an escape.

1.8 Emergency breathing systems (EBS) provide an alternative or additional means to mitigate the risk of drowning. They are designed to allow helicopter occupants to breathe underwater for at least 1 minute, overcoming the need to make a single breath last for the duration of the escape process. If deployed successfully, EBS should therefore increase the likelihood of survival.

1.9 As a type of personal protective equipment, EBS must be seen as a last line of defense, when all other systems have failed. Helicopter EBS are thus provided to protect the user from the risk of drowning when underwater escape is the only option for survival. Given all the difficulties associated with making an underwater escape, if EBS are to be deployed and used successfully they must be relatively simple to use... procedures for use must be intuitive, with few actions required on the part of the user.

Many organizations that routinely fly over water have equipped and trained their personnel with CA-EBS. Those organizations include all branches of the US military, all branches of the Federal Government with the exception of the Departments of Interior and Energy, as well as Oil and Gas operators in the North Sea and increasingly in the Gulf of Mexico.

While the value of EBS is recognized by academia, the military, and industry, the use of EBS is not regulated by either the Federal Aviation Administration (FAA) or the Department of the Interior (DOI).

A study in the journal Safety Science<sup>94</sup> found "...without an EBS, only 58% of the troops successfully escaped whereas 100% escaped unaided when using an EBS. To maximize survival rates in the event of a ditching, it can be concluded that all troops should be issued and trained to use an EBS."

**EBS Pilot Program**. At the request of BSEE's Pacific Region, the Office of Offshore Regulatory Programs (OORP) approved and funded a Pilot Program in June 2014 to investigate the value, cost, and administration of providing EBS as an option for BSEE offshore travelers. The Pilot Program involved 21 volunteers from the Pacific (8) and Gulf of Mexico (13) Regions.

The Pacific Region began field testing EBS in October 2015. Due to procurement and administrative obstacles, the Gulf of Mexico Region's operational testing of EBS began in March 2017. The Pilot Program ended in December 2017.

Users in both Regions supported the continued use of EBS and identified areas for

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<sup>&</sup>lt;sup>93</sup> Tipton et al, 1995

<sup>&</sup>lt;sup>94</sup> The effect of emergency breathing systems during helicopter underwater escape training for land force troops, Taber and McCabe. 2008

improvement. When the Pilot Program was facing termination at the end of fiscal year 2017 the POCSR Aviation Manager wrote "I totally disagree with discontinuing with the program. Emergency Breathing System increases our inspectors' chances to survive in a water ditching." The Pacific Regional Director added "I absolutely agree!! This job has risks and anything we can reasonably do to minimize those risks should be done."

Lessons learned from the Pilot Program and the Pricewaterhouse Coopers study (below) were incorporated into the CA-EBS policies in Section 3.

**Pricewaterhouse Coopers Study**. In 2014 OORP contracted with Pricewaterhouse Coopers LLP (PwC) to conduct a major study of aviation safety on the US Outer Continental Shelf (OCS). One sub-task of this study was to "Assess the risks and benefits of using a compressed air Emergency Breathing System (EBS). Compare the risks/benefits of compressed air EBS to other EBS and to egress without an EBS. Recommend the type of EBS equipment (if any) that is appropriate for BSEE personnel..."

The PwC final report was presented in September 2015 and concluded that "The lack of EBS equipment and training severely hampers the ability of personnel to escape from submerged, inverted helicopters and recommended BSEE consider implementing its EBS Pilot program immediately, to change the voluntary participation policy to compulsory for all personnel on flight status, and to require training for anyone allowed to use EBS."

## **Aqualung Procedures for Cleaning and Disinfecting CA-EBS**



#### CLEANING, DISINFECTANT, DRYING AND STORING FOR AQUA LUNG/APEKS CA-EBS

DATE: 01/11/2018

FOR ATTENTION OF: Training Providers / Operators / Users of Aqua Lung / Apeks CA-EBS

Aqua Lung / Apeks User Manuals and other Aqua Lung / Apeks technical information related to CA-EBS generally do not address the cleaning, disinfecting, drying and storing of the equipment in sufficient detail. This document will address this matter and stand as Aqua Lung's worldwide accepted practice.

CA-EBS due to its very nature and the fact that it could be stored in damp wet environments, can allow microorganisms including fungi, yeasts, bacteria and viruses to multiply rapidly and produce large quantities of spores. These spores can be potentially dangerous causing allergic reactions. Due to this, controls are required to be put in place for the cleaning, disinfecting, drying and storing of the equipment.



Warning do not use bleach based disinfectants or disinfectants known to be corrosive, as these can prematurely age or corrode components. Only follow the manufacturer's recommendations.



Bacterial growth is supported by organic matter contaminated surfaces and general cleanliness is critical, which can be maintained by the use of soapy water.

Effective disinfection will vary depending on the cleanliness of the surfaces.

#### Washing and rinsing

If the use is classed as a low risk of bacterial contamination and/or infection from mould and fungal or saliva build up from daily use, then after each use wash with general household dish washing soap, in warm water to remove any visual dirt and/or staining. This would under normal circumstances be sufficiently clean for immediate reuse. It is ok if the soapy water enters the inhalation section of the demand valve. Ensure that all traces of soap are rinsed and flushed away with clean cold water. Once rinsed, the unit can then be dried and stored to reduce the risk of bacteria growth.

#### **Drying and storage**

To dry the unit after use for storage, the demand valve shall be purged with the breathing gas on while the demand valve is inverted and tipped downwards towards the mouthpiece. This is to ensure that all residual water has been drained from inside the demand valve if any had entered during the cleaning process. Store in a dry and clean environment with circulating air.

## **Aqualung Procedures for Cleaning and Disinfecting CA-EBS**



It is recommended that the demand valve be disinfected periodically to further reduce the risk of bacterial growth. The following disinfectant procedure should be used. It is the training providers / operators / users responsibility to determine the level of risk within their operational environment.

#### **Medium Risk Environments**

When being used where there is medium risk of bacterial contamination and/or infection from mould and fungal growth, or saliva build up from daily use, then disinfecting can be achieved by using Chemgene HLD4L **OR** Confidence Plus surface disinfectant solutions. Other commercially available disinfecting solutions developed for life support systems, laboratory surfaces or PPE may also be suitable.

The CA-EBS shall be washed, rinsed and purged as above. The demand valve is placed in the solution of 100 parts water to 1 part HLD4L (100:1) **OR** 1 oz. of Confidence Plus with 1 gallon of warm water and slightly agitated initially. Leave to soak for 20 minutes.

The disinfectant shall be rinsed off the demand valve with running cold water and then purged while inverted to ensure any residual water is removed from inside the demand valve if any had entered.

The unit is then ready to be reused. It can be dried and stored as above if not going directly into use.

#### **High Risk Environments**

When being used where there is known to be a potentially high risk of bacteria from blood born viruses (BBVs), users known to have gum disease or traces of blood are visible or from infection from mould and fungal growth from long term storage, then disinfecting can be achieved by the use of Chemgene HLD4L <u>OR</u> Confidence Plus surface disinfectant solutions. Other commercially available disinfecting solutions developed for life support systems, laboratory surfaces or PPE may also be suitable.

Undertake the same process as above but with a solution ratio of 50 parts water to 1 part Chemgene HLD4L (50:1) **OR** 1 oz. of Confidence Plus with ½ gallon of warm water.

Chemgene HLD4L and Confidence Plus are effective against most bacteria on contact or after 1 minute. Chemgene HLD4L and Confidence Plus are sufficiently effective with more resistant micro-organisms after 5 minutes on a clean surface.

#### References

Information for Chemgene HLD4L has been ascertained from the manufacturer, there technical bulletin 026 and the product data sheet.

Information for Confidence Plus has been ascertained from the manufacturer and from the product data sheet ID 1001-24-MC.

Mark DeBarra, Aviation Global Manager

Issue:1/011018 MILITARY AND PROFESSIONAL DIVISION AQUA LUNG, NEPTUNE WAY, BLACKBURN

LANCS, ENGLAND BB1 2BT

## Appendix E.1

## **Aviation Mishap Response Planning**

Each Region and District is required to have an Aviation Mishap Response Plan that is tailored to their mission and geographic area.

All personnel involved in aviation operations should be familiar with their Regional and District Aviation Mishap Response Plans. District plans should comply with, and supplement, their Regional plans.

The Regional Aviation Manager and each District Manager will ensure that their plan is up-todate, and all of the points-of-contact listed and respective phone numbers and e-mail addresses are still valid.

Aviation Mishap Response Plans must be verified, and a practice exercise conducted annually. The plans must be sent to the NAM after each update, as well as the results from each practice exercise.

Figure 1 shows the front cover of the <u>Interagency Aviation Mishap Response Guide and Checklist</u>. This guide can be downloaded from the OAS website and provides useful information in developing your unit's Plan and how to respond in the event of an aviation emergency.

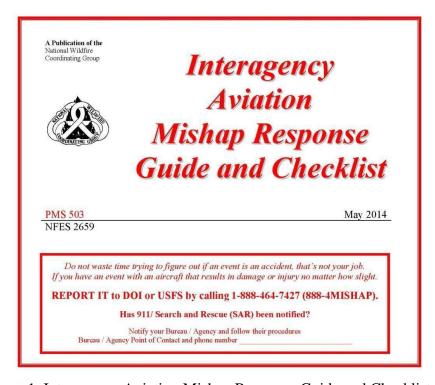


Figure 1. Interagency Aviation Mishap Response Guide and Checklist, 2014

## **Administrative Information**

Each Regional Director and District Manager will ensure that an Aircraft Mishap Response Plan is developed that in compliance with the <u>Interagency Aviation Mishap Response Guide and Checklist</u>. The Regional Plan will be verified annually to ensure that all of the points-of-contact listed and their respective phone numbers and e-mail addresses are still valid.

**Priority of Actions.** As soon as you are aware of a mishap *START A LOG OF ALL ACTIONS AND CALLS*, then refer to the expanded subsections of your Regional plan. The subsections are listed in order of priority.

- a. **Protect people** (Tab A). <u>Lifesaving operations take first priority</u>.
- b. **Protect property** (Tab B). Property should be protected from unnecessary additional damage.
- c. **Preserve evidence** (Tab C). Treat the area as if it were a crime scene and provide 24-hour security until the investigation team arrives. Identify witnesses, get their addresses and phone numbers.
- d. **Notify and investigate** (Tab D). Report the accident. **Do not delay reporting** if detailed information is not immediately available.
- e. **Recovery operations** (Tab E). <u>Everything</u> at the site is under the control of the NTSB or OAS until released.

**Practice** -- The absolute best way to be prepared for the unexpected is to periodically practice your Aviation Mishap Response Plan. Coordinate in advance and get as many responders as possible to participate when you conduct a training drill.

Update Record									
<b>Date of Review</b>	Signature								

### **Protecting People**

- **A.** Many times, in the urgency to assist accident victims the **rescuers may place themselves in jeopardy** and become victims themselves. **Risk assessment and mitigation procedures should be enforced.**
- **B.** Ensure **ALL** crew and passengers involved in an aircraft accident are cleared by medical authority prior to returning to duty.
- **C.** Aircraft wreckage attracts people like a magnet. Keep non-essential personnel well clear, and preferably upwind.
- D. Hazards at an aircraft accident site can include:
  - 1. **Biological Hazards** -- Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV), and many others. See 29 CFR 1910.1030 for control measures.
  - 2. **Toxic Substances** -- Fuel, oil, hydraulic fluid, and exotic aircraft materials such as beryllium, lithium, chromium, and mercury. You must also consider the cargo the aircraft was carrying.
  - 3. **Pressure Vessels** --Tires (often above 90 psi), hydraulic accumulators, oleo struts, oxygen cylinders, and fire extinguishers. They may look OK, but they may have been damaged in the crash.
  - 4. **Mechanical Hazards** -- Metal under tension (rotor blades bent under fuselage), heavy objects, composite materials, and innumerable sharp edges.
  - 5. **Fire Hazards** -- Unburned fuel, hot metal (or other components), aircraft batteries, pyrotechnics, and the ignition of grass as a result of the accident. Be cautious of smoldering items which mayre-ignite.
  - 6. **Environmental Hazards** -- Weather, terrain, and animals (snakes, spiders, scorpions, etc.) Depending on the location and time of year, the environment may be among the most serious hazards at the scene.
- **E.** Utilize available protective devices and clothing and use extreme caution when working around the wreckage. Protective measures include:
  - 1. Minimize the number of personnel allowed to enter the accident site.
  - 2. Ensure exposed personnel use appropriate personal protective equipment (PPE) such as boots, long pants, long-sleeved shirts, leather gloves (use surgical gloves as inserts if blood or bodily fluids are present), and appropriate respirators if toxic vapors or composite material pose respiratory hazards.
- **F.** Do whatever is necessary to extricate victims and to extinguish fires, but keep in mind the need to protect and preserve evidence. **Document and/or photograph the location of any debris, which must be disturbed** in order to carry out rescues or fire suppression activities.

REMEMBER, it's already a bad day; don't make it worse by letting someone else get hurt!

Emergency Actions Tab A (Protect People)

### **Protecting Property**

# NTSB Sec. 831.12 Access to and release of wreckage, records, mail, and cargo.

a. Only the Board's accident investigation personnel and persons authorized by the investigator-in-charge to participate in any particular investigation, examination or testing shall be permitted access to wreckage, records, mail, or cargo in the Board's custody.

Wreckage, records, mail, and cargo in the Board's custody shall be released by an authorized representative of the Board when it is determined that the Board has no further need of such wreckage, mail, cargo, or records. When such material is released, Form 6120.15, "Release of Wreckage," will be completed, acknowledging receipt.

Treat the accident site like a crime scene. Wreckage, cargo, and debris should not be disturbed or moved except to the extent necessary:

- A. To remove victims.
- B. To protect the wreckage from further damage.
- C. To protect the public.

In addition to the authority explicit in NTSB 831.12 another (very good) argument for restricting access is for the protection of the public from the hazards of the accident site (Tab A).

Initially the accident site should be protected by either your own people (e.g. if the accident occurred at a fire) or by local law enforcement officers. The investigation team may request extended security until the investigation is complete.

**Emergency Actions** 

Tab B
(Protect Property)

### **Preserving Evidence**

### Sec. 830.10 Preservation of aircraft wreckage, mail, cargo, and records.

- a. The operator of an aircraft involved in an accident or incident for which notification must be given is responsible for preserving to the extent possible any aircraft wreckage, cargo, and mail aboard the aircraft, and all records, including all recording mediums of flight, maintenance, and voice recorders, pertaining to the operation and maintenance of the aircraft and to the airmen until the Board takes custody thereof or a release is granted pursuant to Sec. 831.12(b) of this chapter.
- b. Prior to the time the Board or its authorized representative takes custody of aircraft wreckage, mail, or cargo, such wreckage, mail, or cargo may not be disturbed or moved except to the extent necessary:
  - 1. To remove persons injured or trapped;
  - 2. To protect the wreckage from further damage; or
  - 3. To protect the public from injury.
- c. Where it is necessary to move aircraft wreckage, mail or cargo, sketches, descriptive notes, and photographs shall be made, if possible, of the original positions and condition of the wreckage and any significant impact marks.
- d. The operator of an aircraft involved in an accident or incident shall retain all records, reports, internal documents, and memoranda dealing with the accident

In addition to those items required by law (above) you should also:

**Control access** to the site by cordoning off the area and allowing into the area only those individuals who have official business. Establishing a pass system to identify authorized personnel is an excellent technique for serious accidents. Everyone who enters should be briefed on the known or suspected hazards and cautioned to avoid disturbing the evidence (flipping switches and souvenir hunting).

**Photograph everything**. Digital photography is preferred. Since some evidence may be easily destroyed prior to the arrival of the accident investigators photograph everything, even if at first it doesn't seem important. Photograph switch positions, impact scars, and other perishable evidence.

**Identify witnesses** and request statements. Request witnesses to write out their statements as soon as possible (before witnesses can compare notes). Be sure to **GET WITNESSES' NAMES**, **ADDRESSES AND PHONE NUMBERS**. Supervisors must ensure that personnel with information pertinent to the investigation are made available to the investigators in a timely manner. If possible, coordinate with the accident investigator(s) PRIOR to de-mobilizing personnel with information pertinent to the accident.

**Secure equipment and records**. Crew items (i.e. helmets, survival equipment (if used), notes, charts, etc.) as well as dispatch logs and records should be controlled and provided to the

<b>Emergency</b> A	Actions
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Tab C
(PreserveEvidence)

IIC/investigation team upon arrival.

### **Notify and Investigate**

# If you see something...SAY SOMETHING!!

Do not try to "classify" events as accidents or incidents that are the job of the National Transportation Safety Board (NTSB). If you have an event with an aircraft that results in damage or injury, **REPORT IT.** 

<u>Initial</u> Notification. Notify your chain of command as outlined in the Regional Aviation Mishap Response Plan. The next requirement is to notify the BSEE NAM. The NAM will notify the Office of Aviation Services (OAS) Safety Office. IF you are unable to contact the NAM contact OAS by calling 1-888-4MISHAP (1-888-464-7427) and providing the information on the Aircraft Accident Checklist.

\*\*DO NOT DELAY the <u>initial</u> notification by trying to complete all of the blanks on the form. Call in the accident as soon as possible and call back as more information becomes available.

The NAM or the OAS Investigator will review your actions and advise you of any additional actions you should be taking, or reports you need to make.

\*\* If you have enough people you should conduct the notification process at the same time as you are conducting other aspects of the immediate response.

#### **Investigation:**

- A. Aircraft accidents (fatality, serious injury, or substantial damage) will usually be investigated by NTSB personnel (PL 106-181). OAS personnel will generally be a "party" to the NTSB investigation. BSEE personnel may be allowed to assist the NTSB or OAS investigators. BSEE personnel must understand the release of any accident information MUST be specifically approved by the NTSB investigator (you are NOT allowed to keep your chain of command "in the loop" without specific NTSB approval.)
- B. Aircraft **incidents-with-potential** will be investigated by Air Safety Investigators from OAS.
- C. Aircraft **incidents** will usually require the Regional Aviation Manager or the BSEE NAM to investigate the event and report the facts and circumstances to OAS. No report is required by the NTSB unless specifically requested (Part 830.15)
- **D.** All aviation-related events that impact aviation safety must be reported using the **SAFECOM** (<a href="http://www.safecom.gov/">http://www.safecom.gov/</a>).

## **Emergency Actions**

Tab D

voiny and invodigate)

### **Recovery Operations**

### NTSB Sec. 831.12 Access to and release of wreckage, records, mail, and cargo.

- a. Only the Board's accident investigation personnel and persons authorized by the Investigator-In-Charge to participate in any particular investigation, examination or testing shall be permitted access to wreckage, records, mail, or cargo in theBoard's custody.
- b. Wreckage, records, mail, and cargo in the Board's custody shall be released by an authorized representative of the Board when it is determined that the Board has no further need of such wreckage, mail, cargo, or records. When such material is released, Form 6120.15, "Release of Wreckage," will be completed, acknowledging receipt.

If an accident is investigated by OAS investigators, they are responsible for notification of the NTSB and compliance with section 831.12 prior to releasing the wreckage.

Actual recovery (and the associated costs) is usually the responsibility of the aircraft owner. Before committing the Government to unnecessary costs, check with the Contracting Officer.

Due to the inherent risks BSEE personnel should not be involved removing or recovering aircraft wreckage (Tab A).

Release of wreckage from the NTSB will go to the OAS investigation team. OAS will release it to the vendor through the contracting officer.

**Emergency Actions** 

Tab E

(Recovery Operations)

Anyone who has ever been involved in the immediate response to an aircraft accident will agree that the first few minutes (and hours) are chaotic.

Developing and practicing your Aviation Mishap Response Checklist today is your best defense against the chaos of tomorrow. Time is an extremely critical factor and immediate positive action is necessary; delay may affect someone's survival.

Conduct of Aircraft Accident Investigations. All U.S. Department of the Interior (DOI) aircraft accidents are investigated under the authority of the National Transportation Safety Board (NTSB) as defined in:

- A. 49 Code of Federal Regulations (CFR) Parts 830 and 831
- B. Public Law (PL) 106-181 and Federal Management Regulation (FMR) 102-33.185.
- \*\* This means that regardless of severity, all aircraft accidents are the domain of the NTSB. If the NTSB elects to not visit the site and the physical investigation is conducted by OAS personnel, it is still an NTSB investigation and investigative efforts must comply with their rules and standards.

### **Tips and Techniques**

- A. **Who's in charge** -- Although the investigation is the responsibility of the NTSB you need to determine in advance who in your organization will be responsible for the initial actions at the accident site
- B. Notification of Next-of-Kin -- See Agency Administrator's Guide to Critical Incident

  Management and the US Fish and Wildlife Service's Line of Duty Death Response Handbook for guidance. As a minimum, all supervisors should have a plan on how to contact their employee's next- of-kin.
- C. **Start a journal** -- Write down everything regarding events, actions, points of contact (who, what, when, where, why).
- D. Control of Records -- Under the provisions of NTSB Part 831.12 (Tab B) the records pertaining to the aircraft and the flight become a part of the investigation and "belong" to the NTSB until released. Gather and control the appropriate records until they can be turned over to the NTSB (or other authorized investigator). Required records include (but are not limited to) aircraft operating and maintenance documents, crew records (flight and medical), flight plans, weather briefings, weight and balance forms, and load calculations.
- E. Conduct after-action review (AAR) -- After the dust has settled and the professional investigators have taken charge it is time to review what happened, what worked, and what needs to be improved. Conduct the AAR while issues and events are fresh in everyone's mind. Update your Aviation Plan and Mishap Response Plan with the lessons learned.

# General Information (page)

### **Definitions** (See 49 CFR (NTSB) 830/831)

- a. **Aircraft Accident** -- an occurrence associated with the operation of an aircraft, which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers <u>death or serious injury</u>, or in which the aircraft receives <u>substantial damage</u>.
- b. Substantial Damage -- damage or failure which adversely affects the structural strength,

- c. performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered "substantial damage" for the purpose of this part.
- \*\* Incident with Potential (IWP) -- an incident that narrowly misses being an accident and in which the circumstances indicate significant potential for substantial damage or serious injury. The OAS Aviation Safety Manager will determine final classification. (The concept "IWP" is unique to DOI.)
- d. **Aircraft Incident** -- an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.
- e. **Investigator In Charge** -- the designated Investigator-In-Charge (IIC) organizes, conducts, controls, and manages the field phase of the investigation. The IIC has the responsibility and authority to supervise and coordinate all resources and activities of all personnel, both Board and non-Board, involved in the on-site investigation. The IIC continues to have considerable organizational and management responsibilities throughout later phases of the investigation, up to and including Board consideration and adoption of a report or brief of probable cause(s).
- f. **Serious Injury** -- any injury which:
  - 1. Requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received;
  - 2. Results in a fracture of any bone (except simple fractures of fingers, toes, or nose);
  - 3. Causes severe hemorrhages, nerve, muscle, or tendon damage;
  - 4. Involves any internal organ; or
  - 5. Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

\*\*In-flight damage to rotor blades or propellers can easily fit into the definition of "Substantial Damage." If you have damage to the main or tail rotor blades, or to the propeller, the chances are good that you have at least an incident with potential...report it immediately! 1 888 4MISHAP

# General Information

## **Media Relations**

When the field investigation is conducted by OAS personnel they will comply with the law by referring all questions, requests for interviews, etc. to the NTSB IIC or to the appropriate NTSB office.

Tips and techniques when working with the media:

- a. Advise the media that the investigation of this accident is under the jurisdiction of the NTSB and any questions or requests for access to the site must be directed to them.
- b. Don't aggravate the media and don't get aggravated by the media; they're just doing their job Even aircraft accidents don't stay in the headlines forever... unless the reporter thinks you're hiding something.
- c. Most reporters have prior experience at accident sites. Remind them of the hazards, to avoid disturbing the wreckage, and ask them to be respectful of the victims.

#### NTSB Sec. 831.13 Flow and dissemination of accident or incident information.

- a. Release of information during the field investigation, particularly at the accident scene, shall be limited to factual developments, and shall be made only through the Board Member present at the accident scene, the representative of the Board's Office of Public Affairs, or the Investigator-In-Charge.
- b. All information concerning the accident or incident obtained by any person or organization participating in the investigation shall be passed to the IIC through appropriate channels before being provided to any individual outside the investigation. Parties to the investigation may relay to their respective organizations information necessary for purposes of prevention or remedial action. However, no information concerning the accident or incident may be released to any person not a party representative to the investigation (including non-party representative employees of the party organization) before initial release by the Safety Board without prior consultation and approval of the IIC.

## **Media Relations**

#### **OVERDUE AIRCRAFT**

An aircraft is considered "overdue" when it fails to arrive within 30 minutes past the estimated time of arrival (ETA) and cannot be located.

#### MISSING AIRCRAFT

An aircraft is considered "missing" when it has been reported to the FAA as being "overdue" and the FAA has completed an administrative search for the aircraft without success.

The aircraft is OFFICIALLY missing when the fuel duration, as reported on the request for flight following, or as reported on the FAA flight plan, has been exceeded and the aircraft location is unknown.

Time	Action	Contact and Phone	Time Log
	Attempt to contact aircraft by radio or phone. If		
Immediately	equipped, review Automated Flight Following data.		
at time	Contact destination agency airbase or airport.		
aircraft is	Gather info required for Aircraft Accident		
due	Report.		
	Contact originating or enroute agency		
15 minutes	dispatch.		
past due	Contact originating or enroute agency airbase.		
	Contact originating or enroute airports		
30 minutes	Contact vendor home base.		
	Contact FAA Flight Service Station and		
past due	request an Alert Notice (ALNOT)		

Anytime the fuel duration exceeded or if an accident is suspected	Submit data from the Aircraft Accident Checklist to: FAA Flight Service Station and request an Alert Notice (ALNOT)	1 800 - WX BRIEF (800 992-7433) or the Comm. Center at 1 202 267-3333 1 888 - 4MISHAP (888 464-7427) 571-326-6569
suspected	OAS Aviation Safety Manager BSEE NAM	371-320-0307

<sup>\*\*</sup> Provide the information on Aircraft Accident Checklist. Do not delay notification if you do not have all the blocks filled. Provide as much information as you can and follow-up when additional info is available.

**SEARCH AND RESCUE.** Search and Rescue (SAR) operations may be coordinated through the FAA to the Air Force Rescue Coordination Center (AFRCC) console – (800- 851-3051 / 850-283-5955) and with local law enforcement agencies.

**Alaska Region** – BLM Campbell Air Tract Dispatch Center - Sat Phone: 8816.414.19653, Cell Phone: 907-723-0807, Office Phone: 907-267-1360. The FAA 24-hour Accident Response Center for Alaska is (425) 227-1389.

**Gulf of Mexico Region** - The FAA 24-hour Accident Response Center for TX and LA is (817) 222-5006 and for MS, AL, and FL is (404) 305-5180.

Pacific Region – The FAA 24-hour Accident Response Center is (425) 227-1389.

# **Overdue and Missing Aircraft**

## **Aircraft Accident Checklist**

## OAS **1-888-4MISHAP**

(Do not delay initial report by trying to fill in all the blanks)

Contact Information		
a. Name		c. Duty Position:
b. Phone Numbers		d. Address:
Work:	Cell:	
Fax:	Home:	e. E-mail:
2. Accident Information	tion	
a. Aircraft Registration/Tai	1 Number	Type of Aircraft Color
b. Date and Time of Accide		
c. Location of Aircraft (Gr	d, Lat/Log, Reference	to Known Point)
d. Hazardous Materials Invo	olved? (Explosives, Rad	dioactive Materials, etc.)
e. Witnesses identified and	statements requested?	
f. Accident Site Secured?		Photos Taken?
g. Flight Data Recorder Sect	ured? (if applicable)	ELT Deactivated?
h. Total Number of Person	nel Involved	
Number of Fatalities		Number of Injuries
3. Accident Description	<b>n</b> (type of mission, where the order of the	hat happened, weather, extent of damage, etc.)
4. Admin Information	)n	
a. Aircraft Owner		b. Operator
c. Pilot in Command		
d. Point of Last Departure		e. Destination
f. Route of Flight		g. Fuel on Board
h. Nearest Commercial Air	port	i. Suitable Helicopter Landing Site
j. Other		

# **Aircraft Accident Checklist**

### **Emergency Contact Checklist**

Contact in order (1) Regional Aviation Manager (2) BSEE NAM or (3) OAS Safety (208) 433-5071 / 5072 / 5073 / 1-888-4MISHAP (1 888 464-7427) \*In Alaska contact Campbell Dispatch: Sat Phone: 8816.414.19653, Cell: 907-723-0807, Office: 907-267-1360

Only contact the FAA / NTSB if you cannot contact your RAM, NAM, or OAS FAA Flight Service Station 1-800-WX BRIEF (1 800 992-7433) FAA Communication Center 1-202-267-3333 NTSB Communication Center 1-202-314-6290

Update phone numbers, frequencies, and POCs quarterly and for each mission

1 Drimour Dognous (Emergency Dognous diel 011 first use dispute numbers as a back and
Primary Response (Emergency Responders - dial 911 first, use discrete numbers as a back-up)     a. Fire Department
b. Police
c. Ambulance
d. Air Ambulance
e. Hospital
2. Secondary Response (Support Personnel)
a. Flight Following FAA Flight Service Station (1 800 992-7433)
b. – Dispatcher
c. OAS Aviation Safety Manager – (208) 433-5071 / 5072 / 5073 or (888) 464-7427
d. NTSB – (202) 314-6290)
e. Photographer
f. HAZMAT Response Team
g. Coroner
h. Clergy
i. Engineer / Recovery Specialists
3. Agency Management and Other Agencies (as required)
a. BSEE Aviation Manager – Andrew Wareham (208) 334-5278
b. BSEE Aviation Safety Manager – Steve Rauch (571) 594-8383
c. Regional Aviation Manager
d. Public Affairs Officer
e. Military Base Operations
f. Federal Emergency Management Agency (FEMA)
g. Airport Operations
h. Aircraft Owner/Operator
i. Contracting Officer
j. Security
k. DOI-AM Regional Office

# **Emergency Contact List**

## **Aviation Incident Response Exercise**

**Overview**: An Aviation Incident Response Exercise (AIRE) is a pre-planned drill used to test and evaluate an organization's Aviation Mishap Response Plan and their employee's ability to execute that plan. An AIRE may be conducted at the District, Regional, or National level.

The AIRE drill places the participants in a simulated situation requiring them to function in the capacity that would be expected of them during an actual aircraft mishap. An AIRE should be as realistic as possible, employing those individuals who would normally be involved in an aviation mishap response.

Why conduct a drill? Research shows that people generally respond to an emergency in the way they have been trained. Conducting the drill allows the organization to practice its response and evaluate its capability to execute its aircraft mishap response plan, in the event of an actual emergency.

Also, DOI policy (352 DM 3.5) requires units to have an Aviation Mishap Response Plan and BSEE National Aviation Management Plan (section 3 D 1) requires those plans to be updated and tested annually.

Conducting the drill gives personnel the opportunity to practice their roles and gain experience. It also improves the organization's system for responding to an aviation mishap and the coordination between individuals and organizations. The drill can also help to eliminate potential problems by focusing on identifying and eliminating response problems before an actual incident.

**Leadership:** The drill can be led by a manager, supervisor, department head or anyone with a good understanding of the Mishap Response Plan Procedures.

**Participants:** Anyone who would normally be involved in a mishap response to include senior managers/staff, administrative personnel, and vendors.

NOTE 1 – it is important to ensure all participants understand that the AIRE is a drill and not an actual emergency. During the drill preface all phone calls with "This is a drill, not an actual emergency."

NOTE 2 – Before the drill ensure that the Regional and National Aviation Managers know that a drill will be conducted so that they can notify their respective organizations. You should also notify BSEE Public Affairs (Regional or National) to ensure that they also know a drill is being conducted.

**Time:** Normally 2 hours is sufficient to provide the orientation briefing, conduct the drill and allow for a post-drill briefing.

**Preparation:** The organizer of the AIRE should begin coordination about 4 weeks prior to the actual drill. This allows the organizer to review the unit's Aviation Mishap Response Plan, to review the

OAS AIRE Train-the-Trainer Job Aid (available from OAS Training or the NAM), to work with local managers to develop a realistic scenario, and to coordinate with the manager for observers/monitors to participate in the evaluation process.

What documents do you need to develop the AIRE? A current copy of the unit's Aviation Mishap Response Plan is needed to develop the evaluation guide as well as current phone directories for local, Regional, and National managers and aviation personnel. It is also helpful to have a current copy of your Regional Aviation Management Plan (RAMP) and the BSEE National Aviation Management Plan (NAMP) for reference while developing the AIRE plan.

#### **Resources:**

Interagency Mishap Response Guide and Checklist: <a href="https://www.doi.gov/aviation/safety/iamrgc">https://www.doi.gov/aviation/safety/iamrgc</a>

USFWS Line of Duty Death Response Handbook: <a href="http://www.fws.gov/policy/LODD.pdf">http://www.fws.gov/policy/LODD.pdf</a>

BLM Line of Duty Death Response Guide:

http://www.blm.gov/style/medialib/blm/nifc/training/lodd.Par.42165.File.dat/BLM\_LODD\_HB\_6\_2012.pdf

# Appendix F.1

# **Risk Assessment Matrix**

		Diek			P	ROBABILIT	<b>Y</b>					
	<i>-</i>	Risk		Frequency of Occurrence Over Time								
	<b>A</b>	Assessment Matrix		A B C D E  Frequent (Continuously experienced) (Will occur frequently) (Will occur several times) (Unlikely; can be expected to occur) (Improbable; but possible to occur)								
		Catastrophic (Death, Loss of Asset, Mission Capability or Unit Readiness)	1	EH	ЕН	н	н	M				
SEVI	Effect of	<u>Critical</u> (Severe Injury or Damage, Significantly Degraded Mission Capability or Unit Readiness)	II	ЕН	н	н	М	L				
SEVERITY	f Hazard	Moderate (Minor Injury or Damage, Degraded Mission Capability or Unit Readiness)	Ш	Н	М	M	L	L				
		Negligible (Minimal Injury or Damage, Little or No Impact to Mission Readiness or Unit Readiness)	IV	М	L	L	L	L				
					Risk A	ssessment	Levels					
				EH=Extre	emely High	H=High N	/l=Medium	L=Low				

See Air Force Pamphlet 90-803 for a detailed discussion on managing risk and the use of this Risk Assessment Matrix

# Appendix F.2

# **Operational Risk Management Worksheet**

					DEPARTME									
				OF	ERATIONAL RIS	k Mana	GEMENT	Wo	ORKS	SHEE	ΕT			
. Organization and Location												2.	Page 1 of	xx
6. Operation / Task						4. Beginn Open	ing Date:		5. En Oper	-	Date:		Date Prepared /28/2011	
. Prepared by (Name / Duty Position)														
ldentified Risk:		nitial R essme			10. Control Measures Identified Risks: (Spec reduce the probability	cific measu	res taken to		Asses dual F		à	12. How to Im Controls: (Incl references, et	lude SOP's,	13. Track & Control: (Continuous Leader Checks, Buddy System,
(Be Specific)	L	М	Н	VH	(Be S	pecific)		L	М	Н	VH	(Be S	etc.) Specific) (Be Specific	
<ol><li>Remaining Risk Level After Control mplemented: (CIRCLE HIGHEST Rer</li></ol>					LO	W	MODE	RA	TE			HIGH	VE	RY HIGH
				,	(Emple	oyee)	(Supervise Chief Eq			1 (0		ict Manager uivalent)		/State/Director or rator Equivalent)
<ol> <li>RISK DECISION AUTHORITY: ( controls and Control Measures used to re- litial risk level, control measures taken and app applications of the control measures.</li> </ol>	duce	risks.	NOT	E: if th	person preparing the fo	rm signs this	block, the sig	nature	e indica	ates or				

See the <u>Interagency Helicopter Operations Guide</u> for a detailed discussion on managing risk and the use of this worksheet.

# **Special Use Mission Risk Assessment**

This risk assessment is specifically intended for use when a change to a mission occurs during the flight for example when you must divert to conduct a reconnaissance of an oil spill/sheen or when you must respond to an accident on a vessel.

BSEE Special Use Mission Risk Assessment				
Risk Factors & Values	0	1	2	Your assessment of the risk
Flight Plan	Ops Normal	Divert	Unplanned deviation	
Ceiling	>3000'	<3000' but >1000'	<1000 but > 600'	
Visibility	>10nm	<10 nm but > 3nm	< 3 nm	
Weather trend	Improving	Stable	Deteriorating	
Wind conditions	0-20 kts	> 20 kts but < 30 kts	> 30 kts	
Sea State	0-2	3	4 or greater	
Mission Altitude	< 3000' MSL	3000'-6000' MSL	> 6000' MSL	
Temperature	<25°C	>25°C but <35°C	>35°C	
Time in duty day	0-5 hrs	>5 but <10 hrs	>10 hrs	
Type of Special Use Mission	Recon or Low-level	Mountainous	Vessel Landing	
Pilot Fatigue (36 in 6)	< 12 hrs	>12 but <24 hrs	>24 hrs	
Pilot mission experience w/BSEE	> 4 yrs	2-4 yrs	< 2 yrs	
				Your total risk
Low - Mission Chief	Green	0-12	Date:	
Medium - DM	Yellow	13-18	Pilot:	
High Risk - RD	Red	19 or greater		
Describe risks and mitigation	n measures:			

# **BSEE Threat Advisory Guidelines For OCS Operations**

The Bureau of Safety and Environmental Enforcement (BSEE) Threat Advisory Guidelines for OCS Operations (TAG) improve the Bureau's ability to prepare for and respond to a national security threat level increase. The TAG does not replace but enhances existing BSEE emergency plans and procedures for the protection of BSEE personnel and assets by establishing a set of graduated measures for each national standardized threat condition level.

### **Background**

BSEE's response to an OCS security threat level is guided by the U.S. Coast Guard (USCG) three-tiered maritime security (MARSEC) levels. MARSEC is designed to provide a means to

communicate pre-planned scalable responses to increased National Terrorism Advisory System (NTAS) threat levels. MARSEC levels are set to reflect the prevailing threat environment to the marine elements of the national transportation system, including ports, vessels, facilities, and critical assets and infrastructure located on or adjacent to waters subject to the jurisdiction of the USCG Commandant sets the MARSEC level.

On June 15, 2016 The Department of Homeland Security (DHS) updated the

<u>MARSEC Level 1</u>Level for which minimum appropriate security measures shall be maintained at all times.

MARSEC Level 2 Level for which appropriate additional protective security measures shall be maintained for a period of time as a result of heightened risk of a transportation security incident.

MARSEC Level 3 Level for which further specific protective security measures shall be maintained for a limited period of time when a transportation security incident is probable, imminent, or has occurred, although it may not be possible to identify the specific target.

NTAS and described a new phase in the global threat environment. See NTAS Bulletin.

The NTAS consists of two types of advisories: Bulletins and Alerts. Bulletins communicate current developments or general trends regarding threats of terrorism on the homeland. NTAS

Alerts - Elevated or Imminent – provide a concise summary of the potential threat, information about actions being taken to ensure public safety, and recommended steps that individuals, communities, businesses and governments can take to help prevent, mitigate or respond to the threat. If the Secretary of DHS issues an NTAS Alert, the USCG will adjust the

BULLETIN Describes current developments or general trends regarding threats of terrorism.

**ELEVATED Threat** Warns of a credible terrorist against the United

<u>IMMINENT</u> Warns of a credible, specific, and impending terrorist threat against the United States.

MARSEC Level, if appropriate, based on the commensurate risk, any maritime nexus, and/or Commandant consultation with the Secretary of DHS. If threat information changes the DHS Secretary may announce an updated alert. All changes, including the announcement that cancels a NTAS alert, will be distributed the same way as the original alert.

#### **Threat Advisory Guidelines**

The BSEE's TAG corresponds to the USCG's MARSEC threat level advisory system. The following measures are considered minimum actions implemented by BSEE Regions for each MARSEC Level. The measures are cumulative. Each successive threat condition level assumes that all measures associated with the preceding threat condition have already been implemented. BSEE Regions may establish additional supplementary measures based on differences in their programs, operations, or environmental conditions.

\* Note: If a NTAS alert is issued for a maritime, coastal, or onshore area, the USCG Commandant may adjust the MARSEC Level, as appropriate, based on the commensurate risk, any maritime nexus, or recommendations made by the Secretary of DHS. MARSEC Level 1 generally applies in the absence of an NTAS alert or when the USCG determines that the alert is not applicable to the marine transportation system.

### **MARSEC Level 1**

- <u>Measure 1</u>. Define notification policies and procedures that ensure the swift flow of information between BSEE Region and Headquarters offices including the reporting of OCS emergency incidents, suspicious activities and relevant security information.
- <u>Measure 2.</u> All Regions must maintain an updated emergency contact list of appropriate BSEE officials, other Federal (including National Emergency Hotline: 800- 424-8802) and non-Federal entities, and OCS stakeholders.
- **Measure 3.** All Regions maintain close liaison with the USCG and other Federal and non-Federal entities to ensure effective coordination to improve preparedness and response to an OCS security threat level increase or security incident. Each Region should be represented on their local USCG Area Maritime Security Committee (AMC).
- <u>Measure 4.</u> Establish links and routinely check websites that provide information on threat level and critical infrastructure information. Example websites include: <u>DHS</u>, USCG's <u>Homeport, NTAS Bulletin</u>, and <u>NTAS Alert</u>.
- **Measure 5.** At regular intervals, remind BSEE inspectors and other personnel that work offshore to report all suspicious or unusual activity to their supervisor or regional designee. Suspicious activities can be reported to the national Emergency Hotline @ 800-424-8802, local law enforcement or call 911.
- <u>Measure 6.</u> At regular intervals review emergency response procedures, continuity of operations plans, emergency evacuation plans, and contact information for both BSEE Headquarters and Region Emergency Management Coordinators.

## **MARSEC Level 2**

<u>Measure 7.</u> Notify BSEE personnel of heightened security risk and define expectations (measures expected to be taken). Instruct BSEE employees traveling offshore to maintain frequent contact with their home office. Check national media or federal websites for

information related to threats against the United States or general trends regarding threats of terrorism.

<u>Measure 8.</u> Increase vigilance for incidents of suspicious activity should be emphasized. Review OCS "Critical Assets" list and to the extent possible alter flight paths to observe OCS critical assets. *If You See Something, Say Something*. Report suspicious activities immediately to the <u>National Response Center</u> (1-800-424-8802), local law enforcement or call 911.

<u>Measure 9.</u> Use BSEE contract helicopters only for inspections, investigations, or other activities related to the agency's mission. Do not transport visitors to OCS facilities. \*BSEE will not conduct unannounced landings within the area affected the raised MARSEC level unless otherwise directed by the Regional Supervisor, Field Operations (AOCS Region and POCS Region) or the District Manager (GOM Region).

**Measure 10.** Consult and collaborate as necessary with the USCG or other Federal and non-Federal entities about possible supplementary measures that can be implemented to enhance emergency awareness, preparedness, and response.

**Measure 11.** Notify Region and Headquarters Emergency Management Coordinators of TAG measures (including supplementary or other) implemented as a result of MARSEC Level 2.

#### **MARSEC Level 3**

**Measure 12.** Notify BSEE personnel of the heighten security risk and define expectations (measures expected to be taken). Continue to check national media or federal websites (ex. Homeport, NTAS Alert, or NTAS Bulletin) for information related to the heightened security risk.

Measure 13. Suspend all BSEE offshore activities and require personnel to evacuate offshore facilities and return to their home office. Notify Emergency Management Coordinator(s) when all BSEE personnel working offshore have returned to their home office safely.

Measure 14. Notify Region and Headquarters Emergency Management Coordinators of TAG measures (and/or other measures) implemented as a result of MARSEC Level 3

# **Pilot Briefing**

The Pilot Briefing must include the following items:

- **a.** How to safely approach/leave the aircraft.
- **b.** Securely stowing all loose items/equipment in both the cabin and baggage compartment.
- **c.** Aviation Life Support Equipment to include CA-EBS (for passengers qualified to use).
- **d.** Location and operation of the emergency locator transmitter (ELT),
- **e.** Crew resource management (CRM) procedures. How and when to alert the pilot to hazards (birds, other aircraft, helideck obstacles) and when to remain quiet (i.e. sterile cockpit procedures).
- **f.** Smoking (including electronic cigarettes and personal vaporizers) is prohibited in or around BSEE aircraft. Passengers shall be briefed on when, where, and under what conditions smoking is permitted.
- g. Verification of Hobbs meter reading before and after flight.

Note: Electronic cigarettes and personal vaporizers are not allowed in checked or gate-checked baggage. They must be declared to the pilot and may (at the pilot's discretion) be stowed in carry-on baggage, or on your person, during flight. However, the use and charging of e-cigarettes and personal vaporizers is prohibited onboard all flights

# **Example of Aviation Safety Meeting Minutes**



## BSEE XXXXX OCS REGION AVIATION SAFETY MEETING MINUTES

Date: Month, Day, Year	Time:	a.m.
Location:	5°C	
Chair: First and last name, RAM	Recorder: Fire	st and last name

### Distribution and Attendee List (Use continuation sheet if needed)

Name	Name	
Name, RD	Name, Position	
Name, RAM	Name, Position	
Name, NAM	Name, Position	
Name, Position	Name, Position	
Name, Position	Name, Position	
Name, Position	Name, Position	

#### Minutes:

#### Continuing Items: (Items will be removed once completed and reported so in minutes.)

Date Initiated	Task	Assigned	Target Date

## New Business:

Topic	Highlights	Decision

## Next Meeting

Date:	Time:	a.m.	Location:	
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#### Adjournment Time:

# **Consolidated List of Position Responsibilities**

### **Regional Directors** (RD) are responsible for:

- Administering and adhering to DOI aviation policy, the BSEE National Aviation Management Plan and the Regional Aviation Management Plan.
- Managing contracted aviation resources and services within their Region.
- Implementing an effective aircraft accident prevention program within their Region.
- Designating in writing a Regional Aviation Manager (either full-time or collateral) with copies of the written designations forwarded to the Chief, OORP, and Bureau NAM. RDs are encouraged to designate a Regional Aviation Safety Manager (RASM).
- Reviewing, approving, and signing the Regional Aviation Management Plan a minimum of every three years.
- Regional Directors, or their approved designee, may grant a temporary extension of no more than 90 days to allow personnel to complete their HUET requirements.

## Managers (line managers) are responsible for:

- Being aware of Departmental policy as it relates to aviation programs supporting BSEE missions for which they are responsible.
- Providing time and resources for education and training as specified in OPM 04.
- Ensuring employees under their authority take initial and refresher IAT training required by DOI and BSEE.

#### **Supervisors** are responsible for:

- Ensuring that the HUET certificate of completion is maintained as part of the employee's official training or personnel record.
- Being aware of Departmental policy as it relates to aviation programs supporting BSEE missions for which they are responsible.
- Being responsible to ensure employees under their authority take initial and refresher IAT training required by DOI and BSEE.

## National Aviation Managers (NAM) is responsible for:

- Ensuring aviation programs, procedures, and guidelines comply with and implement DOI aviation policy and directives;
- Providing oversight in the planning and technical analyses relating to acquisition and costeffectiveness of aviation resources;
- Reviewing, revising, and maintaining the National Aviation Management Plan;
- Representing BSEE as a member of the DOI Executive Aviation Subcommittee (EAS);
- Collaborating with the Regional Aviation Managers (RAMs) to ensure safe and efficient use of all aviation resources in the accomplishment of BSEE missions;
- Providing oversight of BSEE's aviation training program providing training/certification guidance (curriculum, and course materials, instructing) for all BSEE aviation users;
- Evaluating the effectiveness of existing BSEE aviation safety programs and identification, development, and implementation of new opportunities that enhance BSEE's aviation safety culture;
- Providing oversight and management of the BSEE SAFECOM program to include the investigation and tracking of reported incidents for the purpose of trend analysis and publishing of BSEE SAFECOM Summaries;
- Providing programmatic oversight and policy of the BSEE HUET (Helicopter Underwater Egress Training) and CA-EBS (Compressed Air Emergency Breathing Systems) programs and investigation of reported incidents;
- Serving as BSEE's liaison to National Transportation Safety Board (NTSB) and OAS accident investigation teams;
- Representing BSEE at the Interagency Aviation Training Subcommittee (IATS), and other aviation safety organizations (e.g. HSAC, OPITO, etc.); and,
- Collaborating with Regional Aviation Managers to ensure safe and efficient use of all aviation resources in the accomplishment of BSEE missions.
- Reviewing the NAMP annually and make interim revisions as required.
- Providing guidance and oversight for BSEE's Aviation Safety and Training programs
- Monitoring the BSEE aviation training program to ensure that the goals and competencies are being met and provide a summary of aviation training on a monthly basis

to the chief of OTB.

- Reviewing award recommendations and proposed citations against the criteria of 352 DM
   4 and this Plan.
- Maintaining BSEE's HUET policy and is the approval authority for HUET equivalencies.

## Regional Aviation Manager (RAM) are responsible for:

- Ensuring Regional aviation programs, procedures, and guidelines comply with and implement DOI and BSEE National aviation policy and directives;
- Providing oversight in the planning and technical analyses relating to acquisition and costeffectiveness of Regional aviation resources;
- Monitoring aviation training within their Region to ensure that training requirements are being met and proficiency maintained.
- Reviewing, revising, and maintaining the Regional Aviation Management Plan;
- Collaborating with the NAM to ensure safe and efficient use of all aviation resources in the accomplishment of the BSEE mission.
- Providing oversight of Regional aviation training program providing training/certification guidance (curriculum, and course materials, instructing) for all Regional aviation users;
- Evaluating of the effectiveness of existing Regional aviation safety programs and identification, development, and implementation of new opportunities that enhance Regional aviation safety culture;
- Providing oversight and management of the Regional SAFECOM program to include the investigation and tracking of reported incidents;
- Providing oversight and management of the Regional HUET (Helicopter Underwater Egress Training) program and (if applicable) CA-EBS (Compressed Air Emergency Breathing Systems) programs.
- Collaborating with the NAM and District Managers to ensure safe and efficient use of all aviation resources in the accomplishment of BSEE missions.
- Reviewing SAFECOMs and other sources of information against the criteria of 352 DM 4 to identify events and actions worthy of recognition using an aviation award.
- Organizing, conducting, and recording minutes of each aviation safety meeting. A copy of the safety meeting minutes will be provided to the NAM and EAC member within 7 days

of the safety meeting.

- Overseeing all Regional aspects of Aircraft Mishap Response Planning.
- Conducting either a telephonic notification drill or an Aviation Incident Response Exercise annually and providing a summary of any Aviation Incident Response Exercise to the NAM within 7 days after its completion
- Ensuring that copies of the current Regional Aircraft Mishap Response Plan will be included in the RAMP and will be provided to the NAM annually.
- Implementing Region aviation policy and providing oversight of the ALSE program.
- Documentation Requirements. RAM will.
- Tracking all flights that transport USCG personnel on BSEE contract aircraft and ensure the RD is aware of these flights.
- Assisting in the development of a PASP (See Section 8)

# **Sea States and Float Limitations**

**Discussion.** When a helicopter makes a forced (uncontrolled) or a precautionary (controlled) emergency landing offshore there are several factors that influence how long the aircraft will float and remain upright to allow the occupants to safely egress. Prominent among those factors are the condition of the floats, the wave height, wave steepness and wind.

A European Aviation Safety Agency (EASA) study, *Helicopter ditching and water impact occupant survivability*<sup>95</sup>, (March 23, 2016) states "Helicopters have a natural instability when floating on the water with a tendency to capsize and remain inverted due to their high center of gravity in relation to their center of buoyancy..."

The aircraft-mounted floats on all BSEE contracted helicopters are rated to sea state 4. <u>FAA Advisory Circular 29-2C</u> defines sea state 4 as "moderate seas" with a significant wave height of between 4-8 feet and wind speed of 17-21 knots.

BSEE's Pacific Region, and to a lesser degree, the Gulf of Mexico Region, experience wave heights above sea state 4 often enough to warrant an understanding and mitigation of those risks.

When the sea state exceeds the float limitation(s) the risk of the helicopter capsizing increases and the time available to egress before capsizing decreases.

#### Environmental.

HeliOffshore, an international association focused on the safety of the offshore helicopter industry, published a study<sup>96</sup> in 2016 that determined wave steepness poses a greater risk to helicopter stability than the previous metric of significant wave height alone.

That study used readings from meteorological stations associated with the major offshore oil fields around the world, two of which are in the Gulf of Mexico (Galliano and Brazoria). The HeliOffshore report does not provide wave data for the California coastal area.



Figure 1. Location of Galliano and Brazoria meteorological stations.

<sup>95</sup> See EASA Notice of Proposed Amendment 2016-01, Helicopter ditching and water impact occupant survivability

<sup>&</sup>lt;sup>96</sup> HeliOffshore (www.helioffshore.org) Wave Climate Steepness Analysis for Helicopter Safe Operations

HeliOffshore findings indicate that BSEE helicopters operating in the Gulf of Mexico <u>seldom</u> experience the wave height (H<sub>s</sub>) and/or wave steepness (S<sub>s</sub>) that are likely to result in a helicopter with operable floats capsizing immediately following a controlled landing.

The HeliOffshore study does not cover BSEE's Pacific Region operations. However, data from NOAA's Harvest Southeast buoy station 46257<sup>97</sup>, at the northern end of the Pacific Region's area of operations, shows that for more than one-third of the year BSEE operates over sea states greater than 4 which exceed the manufacturer's recommended maximum for the aircraft floats<sup>98</sup>.

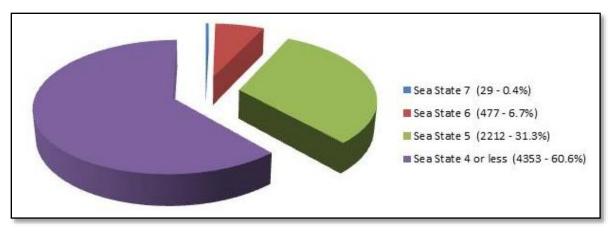


Figure 2. Summary of 2016 sea state data for Harvest Southeast buoy station 46257 (0700-1700) 99100101102

In 2016 the Harvest Southeast station recorded 7071 readings between 0700-1700. The **average wave height** was 7.94 feet (**sea state 4**) and the highest significant wave height was 25.3 feet. The data shows that the highest sea states occur during the winter between January and March and the calmest seas occur in the summer months between June and August.

**Equipment**. BSEE contracts require all helicopters to be equipped with emergency pop-out floats and life raft systems<sup>103</sup> but do not stipulate what sea state the floats must be rated for. All floats on BSEE-contracted helicopters in the Gulf of Mexico and Pacific Regions are rated for sea state 4.

Figures 3-6 show the normal (stowed) configuration of the floats, the floats inflated, the external life raft stowed, and the life raft inflated.

<sup>&</sup>lt;sup>97</sup> Station 46257 was selected because the northern sector of BSEE's Pacific Region commonly experiences the highest waves.

 $<sup>^{98}</sup>$  The data for the Harvest Southeast buoy station during normal duty hours in 2016 is depicted in chart 1.

<sup>99</sup> Sea state 4 = 4-8 feet

 $<sup>^{100}</sup>$  Sea state 5 = 8-13 feet

 $<sup>^{101}</sup>$  Sea state 6 = 13 - 20 feet

 $<sup>^{102}</sup>$  Sea state 7 = 20-30 feet

<sup>&</sup>lt;sup>103</sup> BSEE floats comply with NTSB recommendation A-07-87 for "externally mounted life rafts large enough to accommodate all occupants." BSEE also complies with NTSB recommendation A-07-88 which requires all flight crew (pilots) have a "personal flotation device equipped with a waterproof, global-positioning-system-enabled 406 MHz personal locator beacon, and one other signaling device, such as a signaling mirror or strobe light."



Figure 3. Normal float configuration



Figure 4. Floats activated on Bell 407. for a Bell 407



Figure 5. External life raft stowed



Figure 6. External life raft deployed.

Dart Aerospace manufactures the floats for the Bell 407, Leonardo 109 and 119, and the Airbus AS-350. A Dart technical representative stated that the floats on all BSEE helicopters are designed for a maximum sea state 4 and meet the requirements of FAA AC 29-2C<sup>104</sup>.

## Helicopter Float Limitations and Mitigation Strategies.

The consensus opinion of BSEE aviation service providers and the USCG is that floats rated to sea state 4 are the most economically feasible solution given testing and weight issues for the size helicopters operated by BSEE.

A Coast Guard representative said that the float system isn't expected to keep a helicopter upright for an extended period of time regardless of the float rating and that the purpose of the float system is to give the occupants the time to get out of the helicopter and into the life rafts.

<sup>&</sup>lt;sup>104</sup> AC 29-2C - Certification of Transport Category Rotorcraft

The Coast Guard also uses a systems approach to mitigate the risks through **training** (HUET<sup>105</sup> and SWET<sup>106</sup>) and **equipment** (floats, rafts, life vests, CA-EBS<sup>107</sup>, and EPRIBs<sup>108</sup>). BSEE currently employs each of those mitigation techniques except for the SWET.

BSEE contracts currently limit environmental factors such as ceilings, visibility, and winds, but do not address sea states.

**Conclusion.** The research cited above indicates that if a helicopter is forced to land in the water, and if the landing is controlled, and if the floats remain inflated and attached, the helicopter's high center gravity will, in time, cause the helicopter to roll to an inverted position.

The time available to safely egress from the helicopter and get into the life raft decreases as the wave steepness, wave height, and wind speed increase. The following mitigation strategies can be employed to reduce the risk of personnel becoming trapped in an inverted helicopter.

# 2. Risk Mitigations and Approval:

- a. Preflight.
- 1. Prior to the first flight of the day, and throughout the day as necessary, the pilot should use National Weather Service (NWS) and/or National Oceanic and Atmospheric Administration (NOAA) information to evaluate the meteorological and environmental conditions that will affect the planned route of flight. This will include wave height, wave steepness (if available), water temperature, winds, visibility, cloud ceilings, etc.
- 2. If sea states 5 or 6 (waves 8 feet or greater) would be encountered during the planned flight BSEE personnel, in coordination with the pilot, should consider altering the route or changing the destination to avoid the areas of higher sea states.
- 3. For each flight where sea states 5 or 6 will be encountered an operational risk assessment shall be conducted and approved by BSEE management prior to the flight. It is recommended that the risk management worksheet located in the BSEE NAMP Appendix J or equivalent be used.
- 4. Flights in areas of sea state 7 are prohibited.
- b. Risk Approval Level.

1. Sea state 4 or lower (waves less than 8 feet). The mission risk approval level remains unchanged.

<sup>&</sup>lt;sup>105</sup> Helicopter Underwater Egress Training (HUET) – Academic and practical (in water) training to teach helicopter crew and passengers how to escape and survive after a helicopter ditching offshore. BSEE requires the OPITO T-HUET or cold water HUET initially and every 4 years for routine and non-routine offshore travelers.

<sup>&</sup>lt;sup>106</sup> Shallow Water Egress Trainer (SWET) – A SWET trainer is generally a single-person trainer and is not currently used by BSEE.

<sup>&</sup>lt;sup>107</sup> Compressed Air Emergency Breathing Systems (CA-EBS) –Regional Directors may develop CA-EBS programs for their Regions in accordance with the policy in Section 3.

<sup>&</sup>lt;sup>108</sup> Emergency Position Indicating Radio Beacon (EPIRB) - EPIRBs alert search and rescue services in the event of an emergency by transmitting a distress signal via satellite to the nearest rescue co-ordination center. BSEE contracts require the pilot's flight vest be equipped with an EPIRB.

2.

- 3. Sea state 5 (waves 8-13 feet). The mission risk approval level is the Regional Director. Requests to operate over areas of sea state 5 will be documented on the Risk Assessment Worksheet stating the justification for accepting the additional risk. The request and worksheet will be routed through the District Manager to the Regional Director for approval.
- 4. Sea state 6 the mission risk approval level is the BSEE Director. Requests to operate over areas of sea state 6 will be documented on the Risk Assessment Worksheet stating the justification for accepting the additional risk. The request and worksheet will be routed through the District Manager and Regional Director to the BSEE Director for approval.
- c. Pilot's preflight briefing should include the sea states (wave height) and winds expected to be encountered during that flight.
- d. During an aircraft emergency.
  - 1. Passengers will follow the pilot's instructions (whether over land or water).
  - 2. After landing delay exiting the aircraft until the rotor blades are stopped (whether over land or water).
  - 3. For water landing get out of the helicopter and into the life raft as soon as safely practical. The helicopter is designed to be in the air, not the water. It has a high center of gravity and is very likely to tip over or invert.
  - 4. Comply with your HUET, CA-EBS, and sea survival training.
- 3. Training. For flights where sea states 5 or greater will be encountered <u>all passengers</u>, (including visitors) must be current with HUET and CA-EBS.
- 4. For reference purposes Sea State information from FAA AC 29-2C is provided in figure 7.

AC 29-2C, Chg 4 5/1/2014

#### SEA STATE CODE

#### (WORLD METEOROLOGICAL ORGANIZATION)

Sea State		Significant Wave Height		Wind Speed	
Code	Description of Sea	Meters	Feet	Knots	
0	Calm (Glassy)	0	0	0-3	
1	Calm (Rippled)	0 to 0.1	0 to 1/3	4-6	
2	Smooth (Wavelets)	0.1 to 0.5	1/3 to 1 2/3	7-10	
3	Slight	0.5 to 1.25	1 2/3 to 4	11-16	
4	Moderate	1.25 to 2.5	4 to 8	17-21	
5	Rough	2.5 to 4	8 to 13	22-29	
6	Very Rough	4 to 6	13 to 20	28-47	
7	High	6 to 9	20 to 30	48-55	
8	Very High	9 to 14	30 to 45	56-63	
9	Phenomenal	Over 14	Over 45	64-118	

Notes:

- (1) The Significant Wave Height is defined as the average value of the height (vertical distance between trough and crest) of the largest one-third of the waves present.
- (2) Maximum Wave Height is usually taken to be 1.6 x Significant Wave Height; e.g., Significant Wave Height or 6 meters gives Maximum Wave Height of 9.6 meters.
- (3) Winds speeds were obtained from Appendix R of the "American Practical Navigator" by Nathaniel Bowditch, LL.D.; Published by the U.S. Naval Oceanographic Office, 1966.

#### FIGURE AC 29.801-1

Page D - 96

Figure 7 – Sea State Information from FAA AC 29-2C