OMAO Supplement

to the

NOAA Small Boat Standards and Procedures Manual

Version 3.0
February 2022

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
OFFICE OF MARINE AND AVIATION OPERATIONS
Silver Spring, Maryland 20910-3282

February 9, 2022

MEMORANDUM FOR: Distribution

FROM: Rear Admiral Nancy Hann, NOAA
Director, NOAA Corps and
Office of Marine and Aviation Operations

Nancy Hann, RADM/NOAA

SUBJECT: Office of Marine and Aviation Operations (OMAO) Supplement to the NOAA Small Boat Standards and Procedures Manual

As authorized in the National Oceanic and Atmospheric Administration (NOAA) Administrative Order 209-125, NOAA Small Boat Program, I hereby issue version 3.0 of the "OMAO Supplement to the NOAA Small Boat Standards and Procedures Manual" (Supplement). This Supplement provides additional guidance and requirements to the "NOAA Small Boat Standards and Procedures Manual" (NSBS&PM). It applies to all operators-in-charge, small boat operators, crew members, and embarked scientific personnel and other passengers aboard National Oceanic and Atmospheric Administration (NOAA) ships, program boats embarked on NOAA ships, and small boats operated by OMAO.

The Supplement's design and format mirrors the NSBS&PM, and only addresses affected sections and paragraphs. An electronic edition of the Supplement is available in the OMAO Document Management System via AODocs and on the NOAA Small Boat Program website.

Attachment

Printed on Recycled Paper

DOCUMENT HISTORY		
Version	**Description of Change**	**Effective Date**
3.0	Specific changes include the wearing of USCG Boat Crew helmets during certain high-risk operations (Section 10.09.a), and changes to shipboard training certificate and qualification letter submission process in items 6.04 and 2.02.B.6c. Additional changes include addition of items 20.01.c and 20.04.b, adding new requirement to send completed SBP weight test forms to the SBP for review and approval. Training record and qualification letter requirements have been amended in Sections 2.02.B.6.c and 6.04 to reference record retention and submission process outlined in OMAO Procedure 2002 – *OMAO Training Policy*.	2/4/2022
2.0	Section 6.02(a) and (b) changes the FRB Refresher training requirement to every 5 years. Section 7.06(b) changed to reflect small boat operators must demonstrate the ability to depart and come alongside the ship. Section 20 adds requirements regarding weight testing and launching with personnel.	6/22/2018
1.0	Initial Document.	March 2010

Table of Contents

Table of Contents **3**
SECTION 1. INTRODUCTION **5**
.01 Purpose 5
.02 Scope 5
.03 Wording 5
SECTION 2. ROLES AND RESPONSIBILITIES **6**
.02 Operational Roles and Responsibilities 6
SECTION 3. GENERAL POLICIES **9**
.02 Command Designation 9
.13 Program Sponsored Small Boat Operations 9
.14 Program Boats 10
.15 Additional OMAO Policies 10
SECTION 4. CLASSIFICATIONS AND STATUS **11**
SECTION 5. PROCEDURES FOR RISK ANALYSIS AND MANAGEMENT **11**
SECTION 6. OPERATOR QUALIFICATION, EVALUATION, AND DESIGNATION **12**
.02 Required Credentials and Training for Small Boat Operations 12
.03 Crewmember Training 13
.04 Documentation 13
.07 NOAA Ship Transfer Requirements 14
SECTION 7. SAFE MANNING REQUIREMENTS AND WATCHSTANDING **15**
.01 Operator-in-Charge Succession 15
.02 Minimum Safe Manning Levels 15
.05 Watch Standing Requirements 15
.06 Small Boat Crew Duty Performance 15
SECTION 8. MISSION PLANNING REQUIREMENT **18**
.01 Float Plan Updates 18
SECTION 9. STABILITY, DESIGN, AND CONSTRUCTION CONSIDERATIONS **18**
SECTION 10. LIFESAVING EQUIPMENT AND SMALL BOAT EQUIPMENT REQUIREMENTS **19**
.08 Communications and Navigation Equipment 19
.09 Other Equipment 19
SECTION 11. EMERGENCY READINESS 20
.03 Emergency Procedures 20
SECTION 12. ACQUISITIONS, ALTERATIONS, AND DISPOSAL **20**
.02 Considerations for Alterations and Modifications 20
SECTION 13. VISUAL IDENTIFICATION AND REGISTRATION **20**
SECTION 14. INSPECTION REQUIREMENT **21**
.03 Inspections Procedures 21
SECTION 15. HAZARDOUS MATERIALS **21**
SECTION 16. MAINTENANCE PLAN 22
.02 Responsibilities 22
SECTION 17. ACCIDENT AND DAMAGE REPORTING 22
SECTION 18. WEIGHT LIFTING EQUIPMENT CERTIFICATION AND MAINTENANCE **22**
SECTION 19. RIGGING AND PROOF TESTING **22**
SECTION 20. SMALL BOAT HOISTING, INSPECTION AND TESTING REQUIREMENTS 22
.01 For all OMAO: 23
.02 For all NOAA Non-Inflatable Boats and Rigid Hull Inflatable Boats Deployed from Ships: 23
APPENDIX A: PRE-UNDERWAY CHECKLIST AND FLOAT PLAN **27**

ACRONYMS

ANSI	American National Standards Institute
CO	Commanding Officer
CS	Ship's Chief Scientist
DE	Commander's Designated Examiner
FRB	Fast Rescue Boat
MOC-CO	Marine Operations Center Commanding Officer
MO-E	Marine Operations Engineering
NOAA	National Oceanic and Atmospheric Administration
NSBS&PM	NOAA Small Boat Standards and Procedures Manual
OIC	Operator-in-Charge
OMAO	Office of Marine and Aviation Operations
OOD	Officer of the Deck
PLB	Personal Locator Beacon
SBO	Small Boat Operator
SBP	Small Boat Program
STCW	Standards of Training, Certification, and Watch keeping
STEC	Safety, Training, and Environmental Compliance
VOC	Vessel Operations Coordinator
XO	Executive Officer

SECTION 1. INTRODUCTION

.01 Purpose

The purpose of this document is to provide guidance and standards in addition to those provided in the "National Oceanic and Atmospheric Administration Small Boat Standards and Procedures Manual" (NSBS&PM).

.02 Scope

The document applies to all operators-in-charge, small boat operators, crew members, embarked scientific personnel, and other passengers aboard National Oceanic and Atmospheric Administration (NOAA) ships, program boats embarked on NOAA ships, and small boats operated by the Office of Marine and Aviation Operations (OMAO). Additional responsibility to provide a safe working environment and adequate safety training rests on the Command. However, personal safety ultimately depends upon individuals and will not be compromised for any reason. All individuals have the responsibility to voice safety concerns and stop an operation if they observe an unsafe situation during an evolution.

.03 Wording

The section titles in this supplement correspond to the sections in the NSBS&PM. This document contains requirements in addition to those listed in the NSBS&PM and is organized by sections listed in the NSBS&PM. Additional information found in this supplement and not in the NSBS&PM have new section numbers. The NSBS&PM is the primary document governing all small boat operations except where the OMAO Supplement promulgates stricter requirements.

SECTION 2. ROLES AND RESPONSIBILITIES

.02 Operational Roles and Responsibilities

A. Shore Side Personnel

1. Director, Marine Operations:

   - Ensures NOAA ships comply with this directive.
   - Maintains overall safety of the NOAA fleet.
   - Maintains this document and its Appendices.
   - Distributes this document and future revisions to all affected parties.

2. Marine Operations Center Commanding Officers:

   - Perform listed duties in the NSBS&PM denoted under the Program Director Roles and Responsibilities.
   - Ensure NOAA ships under their authority comply with this supplement.

3. Chief, OMAO Safety and Environmental Compliance Division maintains the inspection program through the Fleet Inspection Team and Small Boat Program (SBP) required inspections.

B. Shipboard Personnel

1. NOAA Ship Commanding Officers:

   - Perform listed duties in the NSBS&PM Section 02 under the Vessel Operations Coordinator (VOC) Roles and Responsibilities.
   - Maintain up-to-date Ship Specific Instructions for standard operating procedures for OMAO small boat use aboard their ships.
   - Document that all personnel read the NSBS&PM annually as part of the Operator-in- Charge (OIC) and Crewmember qualification.
   - Make sure visiting program personnel follow this supplement.
   - Clarify specific instructions or deviations from this supplement to all crew.
   - Ensure completion of small boat pre-underway checklist (Appendix A), risk assessment, and names of small boat crew and embarked personnel are entered into the ship's deck log.

- Develop a small boat-training program including an OIC Qualification Workbook.

- Halt any small boat operation deemed unsafe.

- Conduct small boat launch and recovery operations per this document, the NSBS&PM, and applicable OMAO procedures.

- Identify and mitigate all risks.

- Ensure no boat is hoisted:

  (a) Until the Chief Boatswain or his/her designate inspect and approve all equipment, harnesses, and weight bearing components.

  (b) In a heavier condition than the weight test plate indicates, plus personnel and cargo weight.

  (c) With personnel, unless the weight test plate indicates its lifting attachments and harness are designed with a 6:1 or greater safety factor.

2. Operator-in-Charge

The OIC is the single qualified individual responsible for the safe operation of a small boat and all embarked personnel while underway. Clearly identify the OIC in the float plan/ Plan of the Day and verbally to all embarked personnel. Where more than one qualified Small Boat Operator (SBO) is aboard a small boat, only one individual is designated OIC. The OIC makes the decision whether to conduct, postpone, or cancel operations based on weather, status of the small boat, available personnel, and other pertinent factors, any of which could result in an unacceptable level of risk.

Responsibilities include:

(a) Follow and enforce safety guidelines while underway on a small boat.

(b) Ensure safety of passengers, crew, and boat.

(c) Complete the mission pursuant to all applicable regulations and policies.

(d) Complete the pre-underway checklist (Appendix A) and report its status to the ship's bridge, and enter it in the ship's log.

(e) Train unqualified small boat crewmembers and operators.

(f) Review the small boat policies and procedures annually.

3. Small Boat Operators

   A SBO must meet all requirements for certification and be designated according to this supplement. If multiple SBOs are aboard, one must be designated as the boat's OIC. SBO(s) serving as crew assist with the oversight of all personnel aboard, and help ensure operations are conducted safely and efficiently, per the OIC's instructions. The SBO(s) reports directly to the OIC while underway.

4. Officer of the Deck

   The Officer of the Deck's (OOD) responsibilities, as prescribed in a ship's standing orders, could include, but are not limited to, radar watch for storms and ship traffic, radio watch for small boat activities, and logging significant small boat activities in the ship's deck log.

5. Command's Designated Examiner

   The Designated Examiner (DE) is a qualified OIC who is responsible for overseeing the required training of new crewmembers, SBOs, and OICs, and evaluating their performance before they are qualified. In addition, the DE monitors the performance of all OICs and makes recommendations to the Command. Define DE specific duties and authority in the ship's Small Boat Operations Manual.

   Responsibilities include:

   (a) Oversight of training and testing, and appraisal of the small boat OICs and crewmembers.

   (b) Monitor and document the performance of all OICs.

6. Ship's Training Officer:

   (a) Maintains shipboard certification and training documents.

   (b) Maintains certification and training documents for non-OMAO personnel who perform small boat operations while aboard NOAA ships.

   (c) Uploads training certificates to the OMAO Training Division following process in OMAO Procedure 2002 – *OMAO Training Policy*.

SECTION 3. GENERAL POLICIES

.02 Command Designation

The NOAA Ship's Commanding Officer (CO) remains the final authority afloat regarding all matters pertaining to the operation of small boats from a ship as defined by this document. The CO has the final responsibility for adherence to and deviation from this supplement.

.13 Program Sponsored Small Boat Operations

A. Administration

i. COs should expect documented small boat qualifications from program personnel in the project instructions.

ii. Provide the CO NOAA Form (NF) 57-19-04 - S*mall Boat Operator and Crewmember Authorization* and other applicable qualification certificates (e.g. Fast Rescue Boats) for each operator before embarkation.

iii. The CO verifies and documents the program personnel's qualification certification to operate a small boat given the operational area and conditions where the boat is being utilized.

The Command will provide advance notice (at least two months or when the draft project instructions are received by the Command) to the program as to what additional requirements need to be met for qualification before mission deployment.

B. Planning

Chief Scientists are required to include a statement of intent of small boat use in all draft and final project instructions. This statement will include the following information:

i. Mission and type of operations
ii. Duration of operations
iii. Small boat operations risk assessment
iv. Special equipment needed or modifications to the ship's small boat
v. Any request for OIC augmentation with ship's personnel
vi. In the case of program provided small boats, provide:

- Fuel provisions and requirements
- Certification that the small boat has met all inspection requirements of the NSBS&PM and this Supplemental.
- Specifications/characteristics of small boats to be used for launch and recovery.

.14 Program Boats

The use of program provided small boats is authorized aboard NOAA ships; however, the following will be observed:

i. The ship's CO retains operational authority over the small boats**.**

ii. The ship's Chief Scientist is consulted in determining the most efficient times for operations.

iii. In the event of an emergency, the ship's CO retains authority and may direct the OIC in an appropriate manner.

iv. The program providing the small boat is responsible for fueling costs and costs incurred from repairs rendered.

v. The Chief Scientist will provide the CO with NF 57-19-04 - S*mall Boat Operator and Crewmember Authorization* and documentation of small boat inspections as per the NSBS&PM.

vi. A program assumes all costs associated with meeting the requirements of these regulations.

vii. Ensure appropriate safety and platform support review and oversight approvals have been obtained from SBP or Marine Operations-Engineering (MO-E) before boat is deployed from a NOAA ship.

viii. The CO may require that the program provided small boats meet additional requirements for safe deployment or operations from that platform. The CO will provide enough (at least two months or when the draft project instructions are received by the command) advanced notice to the program as to the additional requirements.

.15 Additional OMAO Policies

Safety is the responsibility of not only the OIC but of all passengers and crewmembers assigned to the small boat. At any time, any crewmember can and should voice safety concerns to the appropriate authority. Before continuing operations, address any concerns.

A. Launch/Recovery

Each ships command must develop a deployment and recovery plan suitable for the type of small boat used and the operating conditions. The plan must meet the requirements in Section 20 – *Small Boat Hoisting Inspection and Testing Requirements*.

Do not lower boats from a NOAA ship that do not meet the requirements in Section 20 for lowering with persons aboard. Persons may only embark when boat is in the water and secured alongside the ship.

B. Internal Communications

While underway, as practical, verbalize every maneuver to make sure each member of the crew is aware of what the boat is about to do; discuss the terms that are going to be used such as "Coming Up" (throttling up), "Coming Down" (throttling down), "Hard to Port/Starboard," etc. The OIC shall ensure that all embarked personnel have been briefed on the set of standard, common commands and verbiage that will be used while conducting small boat operations.

C. Surf Operations

Do not operate small boats in environmental conditions that exceed the maximum limitations of a boat.

OICs who have not successfully completed a surf boat coxswain course approved by the NOAA SBP must maintain a safe distance from the surf zone caused by a beach, sand bar, break water, shoal, reef, sea mount, tide rip, or other oceanographic or physical feature where waves or surf are in excess of 3 feet. The surf zone is defined as the part of the coast zone between the shoreline and the most seaward area of breaking waves.

No OIC regardless of training or experience will deliberately enter the above defined surf zone without the direct permission from the CO. All approved small boat work in a surf zone must be entered into the ship's deck log.

SECTION 4. CLASSIFICATIONS AND STATUS

See NSBS&PM.

SECTION 5. PROCEDURES FOR RISK ANALYSIS AND MANAGEMENT

See NSBS&PM.

SECTION 6. OPERATOR QUALIFICATION, EVALUATION, AND DESIGNATION

COs may, at their discretion, permit qualified embarked program personnel to operate either ship or program office provided small boats. If for any reason the CO deems a situation unsafe, science team led small boat operations will be terminated. The program will submit a written risk assessment for all program/mission small boat operations with the project instructions draft and final versions.

.02 Required Credentials and Training for Small Boat Operations

In addition to those listed in the NSBS&PM, the items listed below constitute the minimum acceptable requirements for small boats operating from NOAA ships. Commands are strongly encouraged to provide additional training as available.

(a) Operator-in-Charge – OMAO Personnel

An OMAO OIC must meet the following to operate a small boat from a NOAA ship:

1. Meet all NSBS&PM requirements.

2. Earn the full confidence of both the CO and DE, and has successfully completed the shipboard training requirements.

3. Meet all the following requirements:

   (a) Boat Deployment Crew qualification
   (b) Crew Member qualification
   (c) Standards of Training, Certification, and Watch keeping (STCW) Basic Safety Training
   (d) STCW Fast Rescue Boat (FRB)

4. Document shipboard supervised training, evaluation conducting operations, or documented experience, and has the endorsement of the DE. In addition, the ship must establish a required minimum number of supervised training hours for special operations such as hydrographic surveying, surf operations, etc.

5. Complete the ship's OIC Personal Qualification Workbook.

6. Has been found qualified to operate the boat by the DE.

7. Complete FRB Refresher Training every 5 years. The Command must maintain documentation for 5 years.

(b) Operator-in-Charge – Non-OMAO Personnel

Non-OMAO personnel OIC must meet the following to operate a small boat from a NOAA ship:

1. Provide a current NF 57-19-04 - *Small Boat Operator and Crewmember Authorization* to verify the SBO assigned to the operation has met the requirements within the NSBS&PM.

2. Demonstrate to the satisfaction of the CO and DE, the ability to perform the duties listed in Section 7.06(a).

3. Complete STCW FRB training, or may complete an OMAO approved equivalent FRB course. Contact the NOAA SBP Manager for equivalent courses.

4. Complete FRB Refresher Training every 5 years.

(c) Small Boat Operator

The CO may authorize operation of small boats by NOAA qualified SBOs that have not completed FRB training or an OMAO approved FRB course under the following circumstances:

1. Meet all NSBS&PM requirements.

2. There is an OIC that is fully qualified under this policy on the small boat at all times. The OIC may be an OMAO crewmember or a member of the science party. OMAO crewmember use would depend on staffing and requires prior notification through the project planning process.

3. The OIC maintains full authority to conduct, postpone, or cancel operations based on relevant information and may assume the helm at any time.

.03 **Crewmember Training**

1. Meet all NSBS&PM requirements.

2. Considered qualified when found capable by the CO's DE.

3. Completes NF 57-19-04 - *Small Boat Operator and Crewmember Authorization Form* with signatures from the CO's DE.

4. Completes other qualification requirements as determined by the CO.

(a) Boat Deployment Crew

1. The CO's DE determines which personnel is qualified to deploy boats.

.04 **Documentation**

Upon satisfactory completion of the requirements for an OIC and SBO, the CO issues or updates NF 57-19-04 - Small Boat Operator and Crewmember Authorization Form. This form and training documentation stay aboard the ship as long as the crewmember or

scientist remains aboard. This form must be submitted to the OMAO Training Division following the process outlined in OMAO Procedure 2002 – *OMAO Training Policy.*

The CO maintains a master list of qualified OMAO and Non-OMAO personnel authorized to operate and crew each OMAO and Non-OMAO boat by specific boat carried aboard.

.07 NOAA Ship Transfer Requirements

Crew and scientists who have certification on the same type of small boats on other NOAA ships may be certified without retraining at the CO's discretion. These OICs must produce qualification documentation, and display small boat proficiency and familiarity with local procedures and equipment to the satisfaction of the CO's DE.

Small boat certifications do not transfer to different types of small boats on other NOAA ships. Complete the ship's Small Boat OIC Personal Qualification Workbook and demonstrate proficiency to the satisfaction of the new ship's CO and DE. Upon completion of the ship's small boat qualification process, update NOAA Form 57-19-04 to include the ship's small boat.

SECTION 7. SAFE MANNING REQUIREMENST AND WATCHSTANDING

.01 Operator-in-Charge Succession

Report any relief to the ship. The only person(s) embarked in the boat who may relieve the OIC is:

a. CO, Executive Officer (XO), or SBO subsequently designated OIC.

b. Senior officer at the scene of an emergency or other abnormal situation who exercises authority under the provisions of specified shipboard Chain of Command.

.02 Minimum Safe Manning Levels

Every operation will have a minimum of two qualified personnel aboard the small boat, one qualified OIC and one qualified crewmember as defined by Section 6 above. Exceptions may be made for extreme circumstances where it would be unsafe to have two persons aboard (i.e., during deployment, recovery, etc.). A qualified small boat crewmember need not be part of the ship's complement assuming the above qualifications have been met.

COs may, at their discretion, require additional crew based on operational support, space, and mission, and is subject to designed load limitations.

OICs may remain alone in the boat for limited periods if crewmembers are involved with operations such as scientific operations. The CO approves any such conditions in advance.

.05 Watch Standing Requirements

Boat operations begin when boats are being readied before launch and conclude when boats are secured. Preparation and securing the boat includes pre-brief meetings, prepare equipment, remove equipment, and debrief meetings that involve the operation of the small boats. To minimize fatigue-induced accidents and ensure compliance with STCW work hour requirements, boat crews will not work for more than 12 hours per day. This work period also includes boat deployment preparations, required activities to secure the boat following recovery, and other assigned duties such as shipboard watch standing and scientific work.

.06 Small Boat Crew Duty Performance

(a) Operator-In-Charge

The CO has trust in an OIC's ability to accomplish the assigned missions in a safe and professional manner even under adverse conditions. Due to the extreme dynamic nature of small boats, the OIC is constantly attuned to the safety, small boat and operational risk factors, and comfort of the crew and adjusts operations accordingly. The OIC is the direct representative of the CO. As such, the OIC has authority and responsibility

independent of rank or seniority in relation to any other personnel embarked, except the CO or XO. The OIC:

Demonstrates leadership to effectively coordinate, direct, and guide the performance of the boat crew during watches and tasks.

1. Knows the boat's operational limits and keeps the boat and all embarked personnel out of danger at all times.

2. Is familiar with the local operating area with minimal reference to charts and publications.

3. Demonstrates knowledge of small boat launch and recover procedures, and boat handling skills to come alongside and depart the ship.

4. Demonstrates good boat handling skills to safely and prudently control the movement of the boat while underway.

5. Demonstrates knowledge and ability required to use all equipment on board necessary to respond to emergencies.

(b) Small Boat Operator

The SBO(s) reports directly to the OIC while underway. The SBO:

1. Knows the boat's operational limits and will keep the boat out of danger at all times.

2. Is familiar with the local operating area with minimal reference to charts and publications.

3. Demonstrates knowledge of small boat launch and recovery procedures, and boat handling skills to come alongside and depart the ship.

4. Demonstrates good boat handling skills to safely and prudently control the movement of the boat while underway.

5. Demonstrates knowledge and ability required to use all equipment on board necessary to respond to emergencies.

(c) Crew Members

When qualified and under the direct supervision of the OIC, crewmembers may be responsible for the following duties:

1. Lookout.

2. Towing watches.

3. Anchor watches.
4. Secure towing and mooring lines.
5. Assist in scientific operations.
6. Assist in emergency operations.
7. Other duties as required by the OIC.

SECTION 8. MISSION PLANNING REQUIREMENT

Procedures for the conduct of operations specific to NOAA ships remain outside of the scope of this document and are documented locally in the ship's Small Boat Operations Manual.

.01 Float Plan Updates

At least once per hour, the small boat reports operations and positions to the parent ship using pre-designated operating frequencies. The periodicity of the operational reports may be modified at the discretion of the CO and should be noted in the ship's log.

Commands develop a plan to counter a loss of communication by either the small boat or the ship. This plan is documented in the ship's Small Boat Operations Manual per the NSBS&PM.

SECTION 9. STABILITY, DESIGN, AND CONSTRUCTION CONSIDERATIONS

See NSBS&PM.

SECTION 10. LIFESAVING EQUIPMENT AND SMALL BOAT EQUIPMENT REQUIREMENTS

In addition to minimum carriage requirements for lifesaving and safety equipment in the NSBS&PM, COs establish the minimum required equipment list for small boats within their command. Proper stowage can become critical, even life threatening, if a small boat is involved in a mishap such as capsizing. General guidelines for stowage include:

a. Secure for sea to reduce chance of lost gear or entanglement.

b. Ready and unencumbered access to safety, emergency, and operational equipment.

c. Protection from the elements to prolong equipment service life and reliability.

.08 Communications and Navigation Equipment

a. All small boats embarked from NOAA ships must be equipped with a minimum of two working VHF/FM radios with frequencies 16 and 13; at least one must be battery operated and portable.

.09 Other Equipment

(a) Head Protection

During small boat deployment and recovery from a ship using a crane or other over the side recovery device, an American National Standards Institute (ANSI) approved hardhat must be worn by all personnel involved in the operation. USCG Boat-crew helmets may be used by boat crews in lieu of hardhats and must be used during heavy weather small boat operations, as determined by a risk assessment.

(b) Eye Protection

Eye protection must be worn by all persons onboard a small boat embarked from a NOAA ship. ANSI approved eye protection must be worn with appropriate lenses to protect eyes from wind, spray and UV. Embarked small boats with enclosed cabin are not required to meet this requirement.

SECTION 11. EMERGENCY READINESS

.03 Emergency Procedures

(a) Abandoning

Great effort should be made to avoid abandoning a small boat. Vigorous and proficient firefighting or damage control is normally a preferred alternative to abandonment. However, the prudent OIC should not hesitate to give the order to abandon the boat if survival is deemed more likely in the water than on the boat. As time and the situation permit:

1. Initiate a distress call.
2. Ensure all personnel have Personal Flotation Devices donned properly.
3. Throw all floating objects overboard.
4. Take all portable radios.
5. Activate EPIRB and/or Personal Locator Beacon (PLB) and any take extra signaling gear.
6. Deploy life raft if available.

(b) Capsizing

In the event of capsizing outside of the surf zone, as defined in Section 3.15 of this document, an effort should be made to stay with the inverted craft to use for flotation and visibility to rescuers. If remaining with the boat puts persons at risk, it may be abandoned (i.e. heavy seas and fire).

SECTION 12. ACQUISITIONS, ALTERATIONS, AND DISPOSAL

.02 Considerations for Alterations and Modifications

MO-E reviews and approves the acquisition, structural modification or repairing, and repowering of OMAO owned small boats and hoisting systems via the ship's Port Engineer. Per the NSBS&PM, MO-E or ship CO or designee notifies the SBP before the acquisition process, modification, or repairs of a small boat. Refer to 1901-03, Small Boat Alterations for additional guidance.

SECTION 13. VISUAL IDENTIFICATION AND REGISTRATION

See NSBS&PM.

SECTION 14. INSPECTION REQUIREMENT

.03 Inspections Procedures

All small boats carried aboard NOAA ships, in an operational status, must have current inspections and copies of the inspections retained onboard. The designated VOC for OMAO Class A, I, and II small boats inspects annually and completes an Annual Small Boat Examination (ASBE) as per the NSBS&PM. All inspection procedures and results are retained onboard and are audited by the Fleet Inspection Team as part of the ship's annual fleet inspection. The Annual Small Boat Examination (ASBE) is conducted by the ship's force designated by the CO.

The Fleet Inspection Team completes the Small Boat Examination (SBEX) during an annual fleet inspection. NOAA ships that have a current USCG Certificate of Inspection follow the SBEX requirements within the NSBS&PM Section 14.

The OIC ensures boats are inspected before each launch using the pre-underway checklist (Appendix A) to this document.

(a) Rescue Boats

1. Conduct weekly visual inspections and engine tests. Record the inspection results in the ships bridge log per 46 CFR 199.190(d).

2. A monthly inspection includes complete inventory and testing of the rescue boats required carriage equipment and is recorded in the ships bridge log (46 CFR 199.190(e)).

3. An annual inspection includes full inspection of the lifting appliance and boat release (46 CFR 199.190(f)).

(b) Mission and Work Boats

1. A monthly inspection includes inventory and testing of required onboard equipment and systems and is recorded in the Shipboard Automated Maintenance Management System (SAMM).

SECTION 15. HAZARDOUS MATERIALS

See NSBS&PM and shipboard environmental compliance procedures.

SECTION 16. MAINTENANCE PLAN

.02 **Responsibilities**

The Chief Marine Engineer, Chief Bosun, and manufacturer documentation determine periodic small boat maintenance requirements. The Chief Marine Engineer determines distribution of maintenance responsibilities to meet the SAMMS and manufacturer requirements. Report, in advance, to the CO, any manufacturer recommended maintenance that cannot be completed as scheduled. Small boat maintenance and planning will be reviewed at each Marine Operations – Engineering (MO-E) Work Definition Conference.

SECTION 17. ACCIDENT AND DAMAGE REPORTING

Report accidents or incidents involving OMAO small boats or program small boats embarked on NOAA ships per OMAO Procedures 1101-03 – *Mishap Reporting*.

SECTION 18. WEIGHT LIFTING EQUIPMENT CERTIFICATION AND MAINTENANCE

See NSBS&PM Section 18 and OMAO Policy 0606: Standards for Lifting Appliances on NOAA Ships

SECTION 19. RIGGING AND PROOF TESTING

See NSBS&PM Section 19 and OMAO Procedure 1102-35 – Safe Use of Rigging Equipment

SECTION 20. SMALL BOAT HOISTING, INSPECTION AND TESTING REQUIREMENTS

The following requirements, inspections, testing, and maintenance apply to small boats with and without personnel aboard deployed from a NOAA ship using shipboard cranes.

The following were considered in developing requirements for deploying small boats with personnel using shipboard cranes:

- According to American Bureau of Shipping (ABS) standards for hoisting personnel at sea and International Convention for the Safety of Life at Sea (SOLAS) regulations for rescue boats, hoisting systems used to hoist personnel at sea are to be designed with a minimum 6:1 safety factor.

- Standard lifting attachments manufactured into boats have a 4:1 safety factor intended for hoisting in a light load configuration, with a static (land based) crane from the trailer to calm harbor water.

- When conducting weight tests, the display from a calibrated scale of the load being hoisted must be viewable from the crane controls or at a nearby location where the readout can easily be communicated to the crane operator.

- NOAA is taking a proactive stance on the issues presented here, as there are currently no federal or international regulations that apply to hoisting personnel in boats outside of rescue boats and lifesaving craft.

Approved authority for design of small boats and hoisting systems:

- Chief, Marine Operations Engineering for OMAO boats and hoisting systems
- NOAA Small Boat Program for non-OMAO small boats

Definitions for this section:

1. Condition-A (Dry Weight and propulsion) − Complete weight of the boat, empty and does not include required equipment, fuel, or the equivalent weight of persons

2. Condition-B (Max. Carriage Capacity + Condition A weight) − Weight of the complete boat: includes all required equipment, fuel, and the weight of the persons at 185 lbs. per person for which it was designed to carry.

3. Modified Condition B Weight (Reduced Carriage Capacity+ Condition A weight) − A NOAA term defined as a boat's Condition A weight plus the weight of full fuel and required safety equipment, plus the weight of a reduced amount of supplies, gear, and personnel that the boat can be hoisted while containing people.

.01 **For all OMAO:**

a. Weight test designated Rescue Boats when overhauled or every five years, at 110% of the Condition – B weight (46 CFR 199.190(i) and SOLAS Chapter III/Reg. 20.11).

b. Weight test boats and survey launches deployed by davits and used for daily operations with mechanical releasing mechanisms when overhauled or annually at 110% of the Condition – B weight (46 CFR 199.190(i)).

c. Once weight test is completed, complete the SBP Weight Test Form (available on SBP website) and submit to SBP for review and approval.

.02 **For all NOAA Non-Inflatable Boats and Rigid Hull Inflatable Boats Deployed from Ships:**

A. Lifting Small Boats Without Personnel

a. Must have lifting attachment points and associated hoisting components designed to a 4:1 safety factor or greater.

b. Attachment points on small boat shall be installed by manufacturer and designated for hoisting, or alternate designs are authorized if approved by ship CO or designee and NOAA Small Boat Program.

c. Total weight and hoisting arrangement of small boat must be provided to determine appropriate shipboard apparatus for hoisting operations prior to deployment.

d. Ship CO or designee must inspect and approve small boat and hoisting arrangement prior to departure and each hoisting evolution.

B. Lifting Small Boats With Personnel Aboard

a. Constructed on or after March 1, 2014, must have lifting attachments and hoisting harness components designed to a 6:1 safety factor or greater. Weight test each boat and its lifting harness annually for five minutes at 110% of the Condition – B weight.

b. Constructed before March 1, 2014 and meets or exceeds the 6:1 safety factor, must be weight tested annually for five minutes at 110% of the Condition - B weight, following the initial weight test,

c. Boats constructed before March 1, 2014 and do not meet or exceed the 6:1 safety factor must:

1. Have the Small Boat Program conduct a structural design review and assist the boat's program in developing alteration designs to meet the 6:1 safety factor requirement. The program must submit final design alteration plans to the Small Boat Program. Approved alterations must be implemented before the boat can be initially weight tested for hoisting with personnel.

2. Have the Small Boat Program review boats that cannot be modified to meet the 6:1 safety factor standards for hoisting attachment and/or harness. They will assist the boat's program with reducing the allowable hoist weight of the boat according to the definition for Modified Condition B, effectively de-rating it until the 6:1 safety factor is achieved.

3. Have the Small Boat Program conduct initial proof weight tests at 150% of the Condition – B weight. As boat manufacturers don't test for hoisting boats containing personnel, the 150% initial proof test is to ensure the materials used in the boat's construction are of sufficient strength and quality.

.03 **For all NOAA Non-rigid Hull Inflatable Boats Deployed from Ships:**

A. Lifting Small Boats Without Personnel

a. Must have lifting attachment points and associated hoisting components designed to a 4:1 safety factor or greater.

b. Attachment points on small boat shall be installed by manufacturer and designated for hoisting, or alternate designs are authorized if approved by ship CO or designee and NOAA Small Boat Program.

c. Total weight and hoisting arrangement of small boat must be provided to determine appropriate shipboard apparatus for hoisting operations prior to deployment.

d. Ship CO or designee must inspect and approve small boat and hoisting arrangement prior to departure and each hoisting evolution.

B. Lifting Small Boats With Personnel

a. Must have all hoisting components designed to a 6:1 safety factor, or greater, reviewed and approved by the authorities listed above.

b. The lifting attachments must be original manufacturer or have been repaired or modified by personnel approved of by the manufacturer or the approved review authority.

c. The lifting attachments must be in good condition and free from deformity or tearing.

d. The approved review authority conducts initial proof weight test at 150% of the Modified Condition - B weight.

e. Weight test the boat and its lifting harness annually for 5 minutes to 110% of the Modified Condition - B weight.

.04 **Small Boat Hoisting Form, Label and Identity Plate Requirements When Lifting With Personnel Aboard**

a. Lifting harnesses must:

i. Be designed and rated with a 6:1 safety factor for the boat's hoist weight.

ii. Have a legible, permanently attached, weather and water resistant, label stating the safety rating from the manufacturer or certified inspector.

iii. Be removed from service if any deformation, ripping, cracking, seam popping, or similar is observed, or within 5 years of placing in service.

The harness will remain out of service until appropriately repaired or replaced, and satisfactorily weight tested.

b. Boats lifted with personnel must:

i. Annually complete a NOAA Program Small Boat Hoisting Weight Test and Visual Inspection Record form (See NOAA Small Boat Program website). Submit completed forms to the Small Boat Program for review and approval.

ii. Have an annually updated, permanently affixed, legible, weather and water resistant identity plate. The plate will be affixed to the transom or console clearly stating: "Weight Tested to X lbs. according to 110% *OR* 150% of the Condition B *OR* Modified Condition B weight on *DATE.* Maximum hoisting weight per OMAO policy is *X* pounds when hoisted containing people." Examples provided in Diagrams 1 and 2.

Diagram 1 :
Example of an OMAO boat hoisting plate with the minimum requirements.

Boat named HI-3 Weight tested to 4400lbs according to 110% of Modified Condition B weight on FEB 5, 2014. Max hoisting weight per OMAO policy is 4000 pounds when hoisted containing people.

Diagram 2 :
Example of a program boat hoisting plate with the minimum requirements (see section 13 of NSBS&PM for information on registration numbers).

Boat named Kaku NOAA Registration Number: F2132 Weight tested to 4400lbs according to 110% of Modified Condition B weight on FEB 5, 2014. Max hoisting weight per OMAO policy is 4000 pounds when hoisted containing people.

APPENDIX A: PRE-UNDERWAY CHECKLIST AND FLOAT PLAN

DATE:

Safety Equipment Checklist

- ☐ Life Jackets or other appropriate floatation device.
- ☐ Fire Extinguisher
- ☐ Sound Signaling device
- ☐ Visual Distress Signals
- ☐ Dewatering devices
- ☐ Paddles
- ☐ Anchor and Line (unless operational area is too deep to anchor)
- ☐ Two (2) VHF Maine radios
- ☐ First Aid kit
- ☐ Patch kit and foot pump (inflatable only)
- ☐ Personal Locator Beacon (PLB)/Personal Emergency Position Indicating Radio Beacon (PEPIRB)
- ☐ Inspection and maintenance records are current

Hull Integrity

- ☐ Inflatable chambers
- ☐ Proper inflation
- ☐ Deck fittings
- ☐ Drain plug

Engine

- ☐ Mounting clamps
- ☐ Steering gear
- ☐ Shift and throttle controls

Fuel System

- ☐ Fuel tanks filled, capped and secured
- ☐ Oil levels
- ☐ Fuel line attached, free of leaks

Electrical System

- ☐ Navigational lights
- ☐ Compass light
- ☐ Horn
- ☐ Bilge pump

Science Equipment

- ☐ Mission Gear evenly loaded and secured

After Launch

- ☐ Test engine reverse/ahead
- ☐ Radio check with the bridge
- ☐ Notify the bridge that the checklist has been complete
- ☐ Report persons on board

PRE-LAUNCH BRIEFING CHECKLIST

Before getting underway, brief all crewmembers and passengers on the mission. The briefing must be thorough and, at a minimum, state:

- ☐ Purpose of mission
- ☐ Special circumstances
- ☐ Working radio frequency for the mission _____.
- ☐ Planned operations and duration
- ☐ Weather and sea conditions
- ☐ Wind_____ Direction _____ Tides/Seas _____
- ☐ Emergency equipment and procedures
- ☐ Succession of Command
- ☐ All relevant nautical charts (as operations dictate)
- ☐ Personal Protective Equipment required for operations (safety glasses, exposure suits etc.)
- ☐ Completed Operational Risk Management (ORM)

FLOAT PLAN

Operator-in-Charge: _____

Date: _____

Purpose of voyage:

_____

_____

Planned departure and arrival times during voyage:

_____

_____

Proposed courses for voyage/area of operation and destination:

_____

_____

Communications schedule Cell Phone: _____

Frequency:

_____

_____

Personnel aboard:

_____

_____

_____

OOD Signature: _____ VOC Signature: _____