SHIP DONATION INSPECTION PROGRAM CHECKLIST

SHIP/SUB: _____ LOCATION: _____ DATE INSPECTED: _____ MUSEUM POC: _____.

INSPECTING ACTIVITY: _____ TASK LEAD: _____ EMAIL: _____ PHONE: _____.

MAN-DAYS: _____ # OF PERSONNEL: _____ ALT TASK LEAD: _____ EMAIL: _____.

DEFINITIONS

Source – NSTM 050.3.2.5a

Good Material Condition – the average loss in the original thickness of the shell plating and the maximum depths of pitting do not exceed 10 percent, and the surface is relatively smooth

Fair or Better Material Condition – corrosion in the worst areas does not have pitting exceeding 25 percent

Poor Material Condition – Corrosion in the worst areas exceeds 25 percent

1.0 HULL INTEGRITY

1.1 Tank Sounding Data Review and Draft

WARNING – TANKS, VOIDS, AND OTHER CONFINED SPACES SHALL NOT BE ENTERED

1.1.1 – Review tank sounding data (performed within last 12 months) provided by the museum. Record the required information and tank sounding level in Table 1-1.1. The same set of tanks shall be reviewed each year for comparison purposes.

Criteria

For a battleship, a minimum of 8 tanks must be reviewed

For an aircraft carrier, a minimum of 12 tanks must be reviewed

For all other vessels, a minimum of 4 tanks must be reviewed

Minimum tank locations - one forward, one aft, one port amidships, and one starboard amidships
Minimum tank types - one potable water, one feed water, one fuel, and one void

For example, review of sounding data for the following four (4) tanks would meet the requirements for a destroyer:

Potable water tank located amidships on the starboard side
Fuel tank located amidships on the port side
Feed water tank located aft
Void located forward

Table 1-1.1 – TANK SOUNDINGS

TANK	TYPE	LOCATION	CURRENT SOUNDING (feet & inches)	PREVIOUS SOUNDING (feet and inches)	DIFFERENCE (CURRENT – PREVIOUS) (inches)	COMMENTS

1.1.2 – Photograph each of the four draft marks. Record the drafts in Figure 1-1 below and use Table 1-1.2 to calculate changes in draft. If the ship rests on the bottom at any time, note the conditions under which this occurs in the comments of Table 1-1.2. If the ship is out of the water (on land), record "n/a" for the draft and note this in the comments of Table 1-1.2.

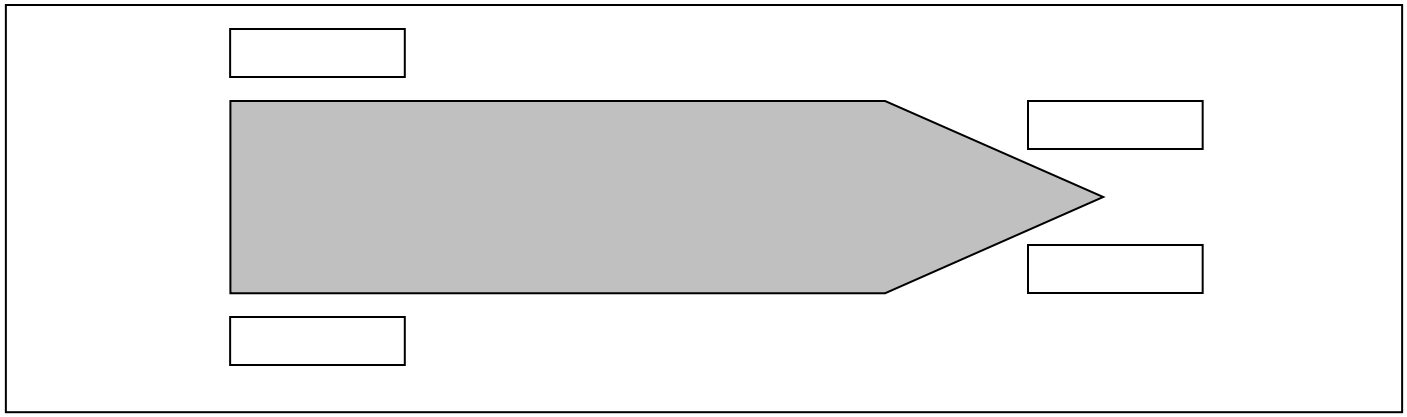

Figure 1-1 – DRAFT

Table 1-1.2 – DRAFT

LOCATION	CURRENT DRAFT (feet and inches)	PREVIOUS DRAFT (feet and inches)	DIFFERENCE (current – previous) (inches)	COMMENTS
PORT FORWARD				
STARBOARD FORWARD				
STARBOARD AFT				
PORT AFT				

Tank Sounding and Draft Assessment:

☐ RED - any draft or tank sounding differs by more than 2 inches from the previous inspection, or no soundings were recorded, or no drafts are recorded

☐ YELLOW - any draft or tank sounding differs between 1-2 inches from the previous inspection or the ship is resting on the bottom during any tide condition

☐ GREEN - any draft or tank sounding differs by less than 1 inch from the previous inspection

1.2 Condition of Waterline and Underwater Hull

All habitable spaces at or below the waterline shall be inspected to determine the condition of the underwater hull.

For ships that are on land, items 1.2.1, 1.2.5, 1.2.6, 1.2.7 and 1.2.8 in Table 1-2 shall still be performed to document the condition of the hull and the assessment is "not applicable."

Table 1-2 – WATERLINE AND UNDERWATER HULL CONDITION

ITEM	RESPONSE	COMMENTS
1.2.1 – Are there any holes in the hull? If yes, list the space(s) and document each space with photos. If there are repaired holes, document the number and take photos of a representative sample.		
1.2.2 – Is watertight integrity maintained below decks? If not, list the space(s) and document each space with photos.		
1.2.3 – Have all stern tube packing and rudder packing glands been tightened so there are no leaks? If not, list the space(s) and document each space with photos.		
1.2.4 – Is there visible pitting at the waterline? If yes, document the pitting with photos.		
1.2.5 – Are hull strength members in fair or better condition? If not, list the location(s) and document each deficiency with photos.		
1.2.6 – Are all bilges clean and dry? If not, list the space(s) and document each space with photos. If not, how is water/fluid removed from the bilges being disposed of?		
1.2.7 – Are all tank manhole covers properly secured in place? If not, list the space(s) and document each space with photos.		
1.2.8 – Are all valves controlling systems that could affect the ship's stability and the environment (fuel, etc.) wired shut? If not,		

list the space(s) and document each valve with photos.		

Waterline and Underwater Hull Assessment:

☐ RED – any hole in the hull including leaking packing glands, or more than 20 holes in the hull repaired, or more than 5 hull strength members corroded through, or watertight integrity not maintained below the waterline

☐ YELLOW – between 5-20 holes in the hull repaired or visible pitting at the water line

☐ GREEN – less than 5 holes in the hull repaired and no visible pitting at the waterline, or dry docked in the last 10 years, or certified underwater hull inspection in the last 5 years

☐ NOT APPLICABLE – ship is on land

1.3 Scheduled Dry Docking

If the ship is on land, the response to all questions is "n/a" and the assessment is "not applicable."

Table 1-3 – DRY DOCKING

ITEM	RESPONSE
1.3.1 – When was the last time the ship was dry docked?	
1.3.2 – When is the next planned dry docking?	

Dry Docking Assessment:

☐ RED – no dry docking plan in place and more than 10 years since the last dry docking

☐ YELLOW – no dry docking plan in place or more than 10 years since the last dry docking

☐ GREEN – dry docking plan in place and less than 10 years from last dry docking

☐ NOT APPLICABLE – ship is on land

For battleships and aircraft carriers, add 5 years for a criterion of 15 years

1.4 Cathodic Protection Performance

If the ship is on land, the response to all questions is "n/a" and the assessment is "not applicable."

Table 1-4 – CATHODIC PROTECTION

ITEM	RESPONSE
1.4.1 – Does the ship have an active (impressed current) or passive (sacrificial anodes) cathodic protection system? If no cathodic protection system is present, note this in the response.	
1.4.2 – If there is an active system, how frequently is it inspected for correct operation?	
1.4.3 – If there is a passive system, how old are the sacrificial anodes? How frequently are the sacrificial anodes inspected? How frequently are the sacrificial anodes replaced?	
1.4.4 – Has the cathodic potential of the ship been measured? How frequently is the cathodic potential measured?	

Cathodic Protection Assessment:

☐ RED – no sacrificial anodes or active system is inoperable

☐ YELLOW – sacrificial anodes are greater than 5 years old or the active system is faulty

☐ GREEN – sacrificial anodes are less than 5 years old or the active system is functional or the ship is on land

☐ NOT APPLICABLE – ship is on land

1.5 Condition of Keel Blocks

This section is only applicable to ships that are permanently displayed on land.

Table 1-5 – KEEL BLOCK CONDITION

ITEM	RESPONSE
1.5.1 – Is the ship resting on keel blocks? Is there a sufficient number of keel blocks? Document the configuration with photos.	
1.5.2 – What material are the keel blocks?	
1.5.3 – What is the material condition of the keel blocks? See the definitions listed below. Document the keel block material condition with photos.	
1.5.4 – Is there insulating material (rubber) between the keel blocks and the hull? Does the insulating material show signs of degradation? Document the condition with photos.	

Keel Block Material Condition

Good Material Condition

- Concrete blocks – minor cracks less than 1/16 inch in width that do no go all the way through the block and there is no loss of material
- Steel blocks – the surface is smooth and free of cracks, and there is no loss of material due to corrosion or pitting

Fair Material Condition

- Concrete blocks – minor cracks less than 1/8 inch in width that do not go all the way through the block and there is no loss of material
- Steel blocks – the average loss in the original dimensions of the keel block and the maximum depths of pitting do not exceed ¼ inch, and the surface is relatively smooth and free of cracks

Poor Material Condition – does not meet the definition of good or fair material condition

Keel Block Assessment:

☐ RED – the ship is not on keel blocks or the keel blocks are in poor condition or there is no insulating material between the keel blocks and hull or the keel blocks are made of a material other than concrete/steel

☐ YELLOW – there is an insufficient number of keel blocks or the keel blocks are in fair condition or the insulating material between the keel blocks and hull shows signs of degradation

☐ GREEN – the ship is on keel blocks and the keel blocks are in good condition and the insulating material between the keel blocks and hull shows no signs of degradation

☐ NOT APPLICABLE – ship is in the water

2.0 MOORING SYSTEM

2.1 Number of Mooring Lines (Waterborne Only)

If mooring arrangement differs from what is provided below , provide a sketch of the mooring arrangement.

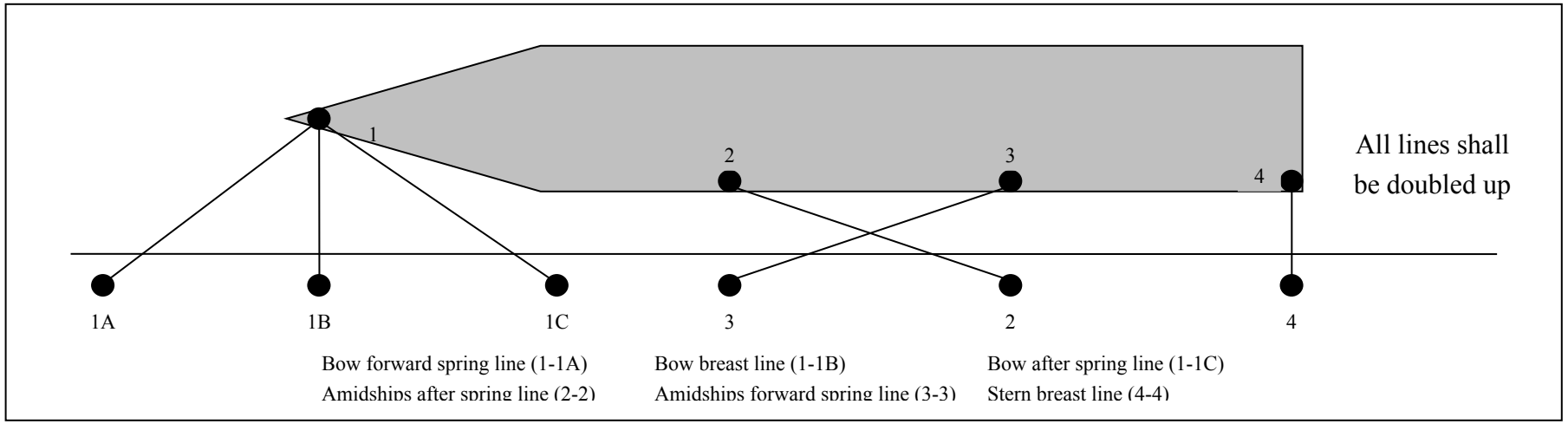

Figure 2-1.1 – MINIMUM BATTLESHIP & AIRCRAFT CARRIER MOORING LINES

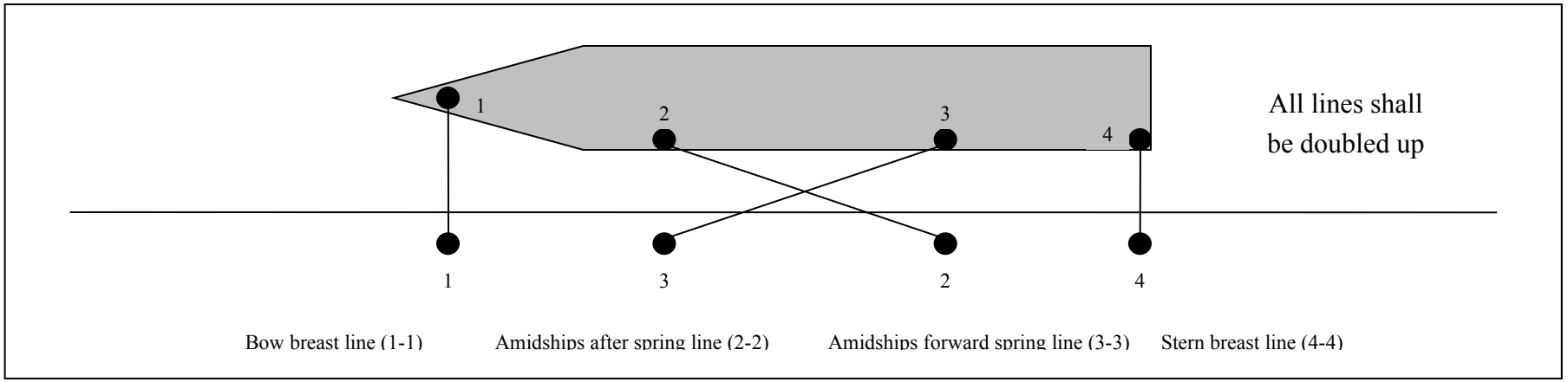

Figure 2-1.2 – MINIMUM MOORING LINES, ALL OTHER SHIPS

Table 2-1 – NUMBER OF MOORING LINES

ITEM	COMMENTS
2.1.1 – If the number of mooring lines does not meet the minimum requirements shown in the applicable figures above (Figures 2-1.1 & 2-1.2), list the deficiencies and document each deficiency with photos. A mooring line shall be properly secured to bollards/bitts/cleats at both ends (aboard ship and on the pier) to count towards the mooring line total.	

Number of Mooring Lines Assessment:

☐ RED – number of mooring lines is less than the minimum above

☐

GREEN – meets the minimum number of mooring lines above

☐ NOT APPLICABLE – ship is on land

2.2 Condition of Bollards/Bitts/Cleats

Table 2-2 – CONDITION OF BOLLARDS/BITTS/CLEATS

ITEM	RESPONSE
2.2.1 – Is there corrosion through the metal on any of the load bearing bollards, bitts, or cleats on board the ship? Corrosion through the metal is defined as a hole in the metal greater than ¾ inch in diameter or, for solid component, wear greater than 1 inch from the original manufacturing condition. If yes, list the location aboard the ship and document each deficiency with photos.	

Bollard/Bitt/Cleat Assessment:

☐ RED – corrosion through the metal of two or more of the above, aboard ship or on the pier

☐ YELLOW – corrosion through the metal of one of the above, aboard ship or on the pier

☐ GREEN – none of the above, aboard ship or on the pier, have corrosion through the metal

☐ NOT APPLICABLE – ship is on land

2.3 Condition of Mooring Lines

Table 2-3 – CONDITION OF MOORING LINES

ITEM	RESPONSE
2.3.1 – What material and size mooring lines are being used? If there is more than one material and/or size mooring line in use, list the application(s) for each material/size combination (e.g., bow breast line, amidships forward spring line, etc.). For detailed inspection requirements, see table 613-2-6 of NSTM S9086-UU-STM-010 CH 613-R3.	
2.3.2 – Are wire rope and synthetic lines installed on the same cleat, bollard or bitt?	
2.3.3 – Is there any powdering between strands of synthetic lines?	
2.3.4 – Is there corrosion through the metal on any of the bollards, bitts or cleats on the pier? If yes, list the location and document each deficiency with photos.	
2.3.5 – Are there any rust deposits on synthetic lines that cannot be removed by washing with soapy water? If yes, list the location and document each deficiency with photos.	

Mooring Line Condition Assessment:

☐ RED – nylon line less than 6 inches in circumference or greater than 10 years old
Kevlar line less than 2 inches in circumference or greater than 15 years old

☐ YELLOW – one or more frayed lines, regardless of material type or age

☐ GREEN – nylon line at least 6 inches in circumference and less than 10 years old
Kevlar line at least 2 inches in circumference and less than 15 years old

☐ NOT APPLICABLE – ship is on land

2.4 Condition of Fenders/Piles

Table 2-4 – CONDITION OF FENDERS/PILES

ITEM	RESPONSE
2.4.1 – Are fenders used between the ship and the pier?	
2.4.2 – What percentage of the fenders are damaged? Document damaged fenders with photos.	
2.4.3 – Are any of the piles damaged? If yes, what percentage of the piles are damaged? Document damaged piles with photos.	

Fender/Pile Condition Assessment:

☐ RED – greater than 25% of the fenders or piles are damaged or no fenders are present

☐ YELLOW – 5% to 25% of the fenders or piles are damaged

☐ GREEN – less than 5% of the fenders or piles are damaged

☐ NOT APPLICABLE – ship is on land

3.0 PERSONNEL SAFETY

3.1 Fire and Flooding Safety

Table 3-1 – FIRE & FLOODING SAFETY

ITEM	RESPONSE	COMMENTS
3.1.1 – Are fire detection systems present? Are supervised alarm systems tested at least annually? Are non-supervised alarm systems tested at least bi-monthly?		
3.1.2 – Are fire prevention/suppression systems present? Are they inspected at least annually by persons knowledgeable in their design and function?		
3.1.3 – Are the spaces free of combustible material and liquids? If not, list the space(s) and document each space with photos.		
3.1.4 – Are portable fire extinguishers present? If present, have they been inspected and certified in the past year? Have they been hydrostatically tested in accordance with the original manufacturer's recommendations? (Refer to extinguisher label.)		
3.1.5 – Is there a current emergency action plan in place? To be current, the emergency action plan must have been reviewed/updated in the last 5 years.		
3.1.6 – Are audible and visual flooding alarms present and operational in all spaces that are at or below the waterline? If flooding alarms are not present, list each space below the waterline that does not have a flooding alarm.		
3.1.7 – Are free flooding fire suppression systems that could create an atmosphere dangerous to life (CO2 and Halon) disabled and drained?		

Fire and Flooding Safety Assessment:

☐ RED – the response to any question was negative

☐ GREEN – the response to all of questions was positive

3.2 Electrical Safety

Table 3-2 – ELECTRICAL SAFETY

ITEM	RESPONSE	COMMENTS
3.2.1 – Is the electrical system grounded?		
3.2.2 – If on keel blocks, is the ship adequately grounded? Note that when afloat, metallic hull ships are considered adequately grounded by virtue of their contact with the water.		
3.2.3 – Are GFCI receptacles used for electrical outlets in areas with water such as restrooms or the exterior of the ship? (Note: This requirement applies only to shore supplied (temporary service) receptacles and does not apply to shipboard receptacles.)		
3.2.4 – Are all energized electrical cables, including the shore power cables, in good condition? All cases of chaffing, wear, rubbing, charring, etc. shall be documented with photos and the location listed under the comments.		
3.2.5 – Are the shore power connections in good condition? Document any degradations with photos.		
3.2.6 – Temporary extension cords shall not be used for permanent lighting or power. Are all permanent lighting and power connections energized using permanent electrical cabling? If not, list the space(s) and document each deficiency with photos.		
3.2.7 – Is there clean and dry rubber matting adjacent to operational or energized electrical or electronic equipment and switchboards? If not, list the space(s), the equipment involved, and document each deficiency with photos.		
3.2.8 – Are there covers on operational electrical switches, power panels, and electronic equipment? If not, list the space(s) and		

document each deficiency with photos.		
3.2.9 - Are all energized electrical systems and devices free of visible evidence of problems? If not, list the space(s) and document each deficiency with photos.		
3.2.10 – Are all original ship's electrical systems inactivated? If not, list the systems that are operational.		

Electrical Safety Assessment:

☐ RED – the response to any question was negative

☐ GREEN – the response to all of questions was positive

3.3 Personnel Fall and Water Safety

Table 3-3 – PERSONNEL FALL & WATER SAFETY

ITEM	RESPONSE	COMMENTS
3.3.1 – Are railings present and in good condition around the perimeter of all weather decks to prevent falls? If not, list the location(s) and document each deficiency with photos.		
3.3.2 – Are life rings/lines present for life saving in the event someone falls in the water? There must be one life ring and 90 ft of line for each 200 ft of pier length. In addition, it is good practice to place one on each brow. Please note exceptions in the comments. If the ship is on land, note this in the comments and list the response as "n/a."		
3.3.3 – Are all ladders and openings protected by handrails that are in good condition? If not, list the location(s) and document each deficiency with photos.		
3.3.4 – Are all ladders, ladder rungs, treads, and securing mechanisms, (bolts, pins, etc) in good material condition? If not, list the location(s) and document each deficiency with photos.		
3.3.5 – Are deck plate gratings in good condition and properly secured? If not, list the location(s) and document each deficiency with photos.		
3.3.6 – Are directional signs in place to clearly indicate exit routes in case of an emergency? Are exit signs illuminated? If not, list the location(s) and document each deficiency with photos.		
3.3.7 – Are the boarding brow and ramp in good material condition? What is the trim of the brow? Document each deficiency with photos.		
3.3.8 – Is there a second brow for emergency use?		

Personnel Fall and Water Safety Assessment:

☐ RED – the response to any question was negative

☐ GREEN – the response to all questions was positive

4.0 HAZARDOUS MATERIALS

Table 4-1 – HAZMAT

ITEM	RESPONSE	COMMENTS
4.1 – Are there any paints, solvents, or cleaners stored aboard? If yes, list the space(s) and document each space with photos.		
4.2 – All materials that could potentially contain asbestos (pipe lagging, bulkhead insulation, floor tiles) shall be intact to prevent airborne contamination. Are any materials that potentially contain asbestos degraded? If yes, list the space(s) and document each space with photos.		
4.3 – Are any components that could potentially contain PCBs (hydraulic system components, heat transfer components, transformers) leaking oil? If yes, list the space(s) and document each space with photos.		
4.4 – Is lagging free of oil in refrigerated spaces? This could indicate a potential leak in a refrigerant system. If yes, list the space(s) and document each space with photos.		
4.5 – Is there an emergency response plan in place for the contingency of leaks or spills for all non-water fluids (i.e., oil, hydraulic fluid, paint, solvents, cleaners)?		
4.6 – Are any combustible gases (acetylene, etc.) or oxygen cylinders stored aboard? If yes, list the space(s) and document each space with photos.		

HAZMAT Assessment:

☐ RED – the response to any question was positive

☐ GREEN – the response to all questions was negative

5.0 PRESERVATION AND MAINTENANCE

Table 5-1 – PRESERVATION AND MAINTENANCE

ITEM	RESPONSE	COMMENTS
5.1 – Is the overall condition of the external hull above the waterline in fair or better condition? If not, list the location(s) and document each deficiency with photos.		
5.2 – Is the overall condition of the masts and antennas in fair or better condition? If not, list the location(s) and document each deficiency with photos.		
5.3 – Is the antenna structure in good material condition? If not, list the location(s) and document each deficiency with photos.		
5.4 – Are the antenna platforms in good material condition? If not, list the location(s) and document each deficiency with photos. Note: Fall arrest systems must be used to ascend to ladder heights above 15 ft.		
5.5 – Is the standing rigging in good material condition? If not, list the location(s) and document each deficiency with photos.		
5.6 – Is the overall condition of the weather deck in fair or better condition? If not, list the location(s) and document each deficiency with photos.		
5.7 – Is the overall condition of the superstructure in fair or better condition? If not, list the location(s) and document each deficiency with photos.		
5.8 – Are strength members and plating in fair or better condition? If not, list the location(s) and document each deficiency with		

ITEM	RESPONSE	COMMENTS
photos.		
5.9 – Are internal structures free of active corrosion? If not, list the location(s) and document each deficiency with photos.		
5.10 – Is the ship properly sealed against potential weather damage? If not, list the location(s) and document each deficiency with photos.		
5.11 – Is the Park area around the vessel clean and maintained? If not, list the location(s) and document each deficiency with photos.		
5.12 – Is the overall appearance of the vessel clean and maintained? If not, list the location(s) and document each deficiency with photos.		
5.13 – Are spaces clean? If not, list the spaces(s) and document each deficiency with photos.		
5.14 – Are non-public areas of ship properly secured and marked to prevent unauthorized entrance? If not, list the location(s) and document each deficiency with photos.		
5.15 – Is the ship secured to the public during the operation of hydraulic equipment, air powered equipment, and the machine shop? If not, list equipment that is operated with the public aboard.		
5.16 – Are any compressed, non-flammable gases (nitrogen, air, carbon dioxide) stored aboard the ship except fire extinguishers? If yes, list the type of gas(es), pressure, location(s), and document each case with photos.		
5.17 – In the heads, are control devices that might damage material if operated by the public properly protected from unauthorized operation? If not, list the location(s) and document each deficiency with photos.		
5.18 – Are sanitary facilities clean and operable? If not, list the		

ITEM	RESPONSE	COMMENTS
location(s) and document each deficiency with photos.		
5.19 – Is the vessel free of evidence of vermin? Are rat guards present? Document each deficiency with photos and list the locations indicating evidence of vermin.		