DATA ITEM DESCRIPTION

Title: WEIGHT AND STABILITY REPORTS FOR IN-SERVICE SURFACE SHIPS

Number: DI-SESS-81404A **Approval Date: 20110609**
AMSC Number: N9202 **Limitation: N/A**
DTIC Applicable: N/A **GIDEP Applicable: N/A**
Office of Primary Responsibility: SH/SEA 05P3
Applicable Forms: N/A

Use/relationship: Weight and Stability reporting is required for in-service ships to ensure that ship's weight and height of center of gravity above the bottom of the keel (KG) values are within the Naval Architectural limits and that stability characteristics are not compromised, as a result of authorized alterations. It provides the basis for planning for corrective or compensation for adverse conditions.

This DID contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

Requirements:

1. Format. The report shall be in contractor's format.

2. Content. The report shall contain:

2.1. A table of contents.

2.2. For each ship, the report shall include light ship (Condition A) and full load (Condition D) displacement (in long tons), condition expected at the end of availability and recommended ballast or compensation measures.

2.3. For each availability, a matrix or table showing alteration number with title description. For each alteration, show weight added or removed (pounds), height of vertical center of gravity above baseline and associated moment, distance of the longitudinal center of gravity from the mid-perpendicular reference point and associated moment, and distance of the transverse center of gravity from the centerline and associated moment. All levers are carried to nearest hundredth of a foot and all moments are carried to nearest a foot-pound. Vertical levers shall be indicated by a "+" or a blank for above the baseline, and a "-" for below the baseline. Longitudinal levers shall be indicated by an "F" or an "-" for forward of the mid-perpendicular reference point, and an "A", a "+" or a blank for aft of the mid-perpendicular reference point. Transverse levers shall be indicated by a "P", a "+" or a blank for port, and an "S" or a "-" for starboard. When an alteration causes a change in loads, include in the table with the appropriate sign.

2.4. By hull, a Stability Summary of:
   a. Full load displacement (long tons)
   b. KG (feet)

c. Date of last inclining experiment
d. Current ballast installed (long tons)
e. Recommendations for inclining

2.5. Summaries for all required loading conditions, and their associated drafts (forward, aft, and mean), list, trim, KG, and metacentric height, uncorrected and corrected for free surface affect of liquids in tanks. Include effects of changes of loads as well as weight and moment of alteration installations.

2.6. Analysis results and discussion of reasons for weight changes from prior reports, and recommendations for reversing unsatisfactory trends, such as exceeding established Naval Architectural limits. Include recommendations for weight removals for compensations, ballast adjustments, need for an inclining experiment, and impact of future alterations.

2.7. Background information, studies, directives, correspondence and all detailed calculations pertaining to weights, including density factor. Where applicable, include alteration Weight and Moment Worksheets as background information.

3. Media Requirements. The media requirements shall be as specified in the contract.

4. End of DI-SESS-81404A. .