

COMSCINST 9096.1	COG CODE N72	DATE 14 JAN 1993
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DEPARTMENT OF THE NAVY
COMMANDER MILITARY SEALIFT COMMAND
WASHINGTON NAVY YARD BLDG 210
901 M STREET SE
WASHINGTON DC 20398-5540

COMSCINST 9096.1
N7
14 January 1993

COMSC INSTRUCTION 9096.1

Subj: WEIGHT AND STABILITY CONTROL

Encl: (1) Weight Report Work Item

1. Purpose. To establish criteria, procedures and responsibility for reporting weight changes of shipboard alterations.
2. Applicability. This instruction is applicable to all MSC USNS ships.
3. Background. During the normal life of a ship, onboard weight often changes. Each individual change may seem minor, but over a period of time, the resultant effect of these changes could adversely impact the stability characteristics of a ship. Maintaining records of weight changes will assist in determining when corrective action may be necessary.
4. Discussion
 - a. This instruction seeks to balance the need to have accurate weight information for a work package with the high cost inherent in trying to identify all small weight changes. The criteria established for reporting ensures that weight reports are provided when the magnitude of the changes will substantively impact the ship.
 - b. A report of weight change does not automatically require a revision to the light ship values or the Trim and Stability (T&S) Booklet. The Military Sealift Command Central Technical Activity (MSCCENTACT) (CTA N7) will evaluate the need to revise the light ship values based on all available weight data. It is costly and technically unjustified to revise the ship stability characteristics when minor changes occur.
5. Criteria and Procedures. The following criteria and procedures are established for weight reporting.
 - a. A weight report shall be required for all work items when the anticipated weight change is greater than 0.1 long tons (224 pounds).

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b. Enclosure (1) identifies the requirements of a weight report and is provided as guidance. The report may be developed either in-house or by others (shipyard, design contractor, sponsor, etc.).

c. The requirements of enclosure (1) may be enhanced and modified when justified. For instance, weight may be in pounds instead of tons when there are many components in a modification, or for weight sensitive ships, i.e., SWATH.

d. Weight reports shall be reviewed for compliance to the tasking required by the designated Contracting Officer Representative (COR). After approval by the COR, they shall be forwarded through the administrative chain of command for the ship.

6. Responsibilities

a. COMSC (N7) shall provide general oversight of weight control, stability and trim and configuration control of MSC ships.

b. MSCCENTACT (CTA N7) shall:

(1) Evaluate the impact of weight changes on ship operations. Take corrective action when deemed necessary. Advise the ship's administrative commander of required action.

(2) Ensure that work packages developed under the command's cognizance require weight reports in accordance with the criteria and procedures above.

(3) Maintain ships' stability data including weight reports.

c. Administrative and Subarea Commanders shall:

(1) Ensure that shipboard weight changes are reported in accordance with the criteria and procedures above. Reports may be for work packages, installations by third party, i.e. sponsors or ships force installing communication equipment, etc.

(2) Review and approve, for technical adequacy, the weight reports for assigned ships. Upon completion of review, forward a final copy of the weight report with recommendations, if any, to MSCCENTACT (CTA N7).

d. Masters shall report to MSCCENTACT (CTA N7) via their administrative command any discrepancies in the T&S Booklet or light ship values.

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7. Report. The reporting requirement prescribed by this instruction is exempt from report control in accordance with SECNAVINST 5214.2B.

Distribution:

COMSCINST 5000.19

List I (Case A)

SNDL	41B	(MSC Area Commanders)
	41C	(MSC Subarea Commanders)
	41F	(MSCCENTACT)
	41G	(COMFSRON)
	41M	(MSC TAGOS Units)
	T-100	(Masters, civil service manned ships)
	T-101	(Masters & Operators, contract-operated tankers)
	T-102	(Masters & Operators, contract-operated FSS)
	T-103	(Masters & Operators, contract-operated TAGOS)

WEIGHT REPORT WORK ITEM

USNS _____
(T-)

GENERAL REQUIREMENTS
DATE:

SPECIFICATION NO:

ITEM NO.

CATEGORY "A"

WEIGHT REPORT

1.0 ABSTRACT

This item describes the requirement for the Contractor to provide a weight report listing all weight and moment changes to the ship.

2.0 REFERENCES: None

3.0 ITEM Location/Quantity

3.1.1 Location: Entire ship.

3.1.2 Quantity: None.

3.2 Item Description/Manufacturing Data: None

4.0 GOVERNMENT FURNISHED EQUIPMENT/MATERIAL/SERVICES: None

5.0 NOTES

5.1 No further stability related work is required of the contractor unless directed elsewhere in the work package.

6.0 QUALITY ASSURANCE REQUIREMENTS: None Additional

7.0 STATEMENT OF WORK

7.1 The Contractor shall provide a detailed weight report listing all weight additions, removals and relocations to the ship, including the associated centers of gravity, as a result of the work performed by the Contractor during the shipyard period.

7.2 All weight changes shall be accounted for. Small weights (less than 0.1 long tons (224 pounds)) may be combined and estimated. Weights shall be documented either by actual weighing, by using catalog weight provided by the manufacturer, by estimating or calculating.

7.3 The weight report shall be in tabular format and, at a minimum, shall contain the following information. The tabulation shall be grouped according to work items of the work package.

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USNS _____
(T-)

GENERAL REQUIREMENTS
DATE:

SPECIFICATION NO:

ITEM NO.

CATEGORY "A"

WEIGHT REPORT

Item number and description
Weight, long tons
Vertical lever (vcg), ft above baseline
Vertical moment, ft-tons
Longitudinal lever (lcg), ft aft or forward of the
forward perpendicular
Longitudinal movement, ft-tons
Transverse lever (tcg), ft off centerline
P - Port,
S - Stbd,
Transverse movement, P/S ft-tons
Resultant weight, long tons
Resultant VCG, ft above baseline
Resultant LCG, ft aft of forward perpendicular
Resultant TCG, P/S ft off centerline

The weight (tons) and distance (feet) shall be rounded-off to two places to the right of the decimal point. Moments shall be rounded to the whole foot-ton. Dimensions aft of the forward perpendicular, above baseline and to port shall always be considered positive.

7.4 The Preliminary Weight Report shall be forwarded for review XXXXX weeks before the end of the shipyard period and a final weight report by two weeks after the shipyard period. The final report shall incorporate any comments provided about the preliminary report. Submit each report to the MSC representative.

8.0 GENERAL REQUIREMENTS: None