DEPARTMENT OF THE NAVY
COMMANDER
NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND
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COMNAVMETOCCOM 3144.1E CH-1
N3
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COMNAVMETOCCOM INSTRUCTION 3144.1E CH-1

From: Commander, Naval Meteorology and Oceanography Command

Subj: U.S. NAVY MANUAL FOR SHIP'S SURFACE WEATHER OBSERVATIONS

Encl: (1) Revised Section I, Chapter 2

1. Purpose. To transmit new Section I, Chapter 2. This change revises observation program requirements for surface weather observations.

2. Action. Remove Section I, Chapter 2 of the basic instruction and insert enclosure (1).

D. SADANAGA
Chief of Staff

SECTION I - CHAPTER 2

I.2. OBSERVATION PROGRAM REQUIREMENTS

I.2.1. Purpose. U.S. Navy ships are required to take and transmit surface weather observations to satisfy a variety of needs.

I.2.2. Observation Equipment. All environmental observations taken by U.S. Navy ships shall be obtained using authorized equipment described in NAVMETOCCOMINST 13950.1L.

I.2.3. Written Records. All ships at sea are required to take regular observations unless exempted by competent authority. The written record of weather encountered by the ship provides a legal record for use in investigations of accidents and mishaps. It also serves as a convenient log for data disseminated within the ship. Additionally, the forms must be archived locally for a minimum of six months, or per the ship's records retention program.

a. Where ships are steaming in company or in close proximity (generally within 10-nautical miles), the Officer in Tactical Command (OTC) may designate one of the ships to report observations for the group.

b. Ships in port are required to continue regular weather observing and reporting unless there is a nearby U.S. manned weather reporting activity which meets existing reporting requirements. In port, weather guard ship arrangements may be utilized for groups of ships at the discretion of the Senior Officer Present Afloat (SOPA).

c. When a ship is exempted by competent authority from taking observations, make a notation in the remarks section of the Meteorological Records Transmittal Form, COMNAVMETOCCOM 3140/2DF, Part B. Indicate the authority who exempted your unit from taking observations, the designated guard ship(s) and effective dates/times exempted (i.e., IAW CTF FOUR ONE 221345Z NOV 96 USS SAGINAW (LST-1188) DESIGNATED WX GUARD SHIP EFFECTIVE 0001Z 23 NOV TO 2359Z 29 NOV 96).

I.2.3.1. Observation Form. All ships taking surface weather observations will use COMNAVMETOCCOM Form 3141/3, available through the Naval Supply System, FSN 0108-LF-019-3000. The form is designed for use by all observers. There are two sections to this form, one for the recording of hourly (and special)

observations and the other for recording of three and six hourly encoded synoptic weather observations.

I.2.3.1.1. Part I - Ship Observation Code. This format is designed to support both surface and aviation requirements with additional ship and sea data columns. The World Meteorological Organization (WMO) FM-15 (METAR) and FM-16 (SPECI) formats are used to record all surface weather observations taken. Ship aviation observations are taken and encoded for local dissemination (via phone, radio, message transmittal, etc.) to departments within the ship, to aircraft operating from the ships' deck, to other ships and aircraft in the operating area, and to shore activities supporting fleet operations. This data is also used to provide weather data for accident and mishap investigations.

I.2.3.1.2. Part II Ship Synoptic Code. The second part of COMNAVMETOCCOM 3141/3 is formatted to encode the WMO FM-13 (SHIP) synoptic code. Data is encoded in Part II from observed data recorded in Part I, with some additional observed data required. Part II is encoded for dissemination via naval message.

I.2.3.1.3. Column Organization. Each code (ship observation, ship synoptic) is divided into numbered columns. These columns are divided to contain specific observed elements or portions of observed elements, each element can then be identified by a column number. Part II contains all columns of the WMO FM-13 (SHIP) synoptic code, although not all columns will require an entry by Navy observing personnel.

I.2.3.1.4. Column Applicability. There are minor observation requirements placed on Aerographer's Mates (AG) and Quartermasters (QM); therefore, not all columns will always require an entry. Some columns require an entry in certain types of observations and other columns require an entry only when an element is observed to be present.

I.2.4. Maintenance of Observation Forms. Only the original of each day's observations is required to be retained onboard for a minimum of six months, or per the ship's records retention program.

I.2.5. Entries on Observation Form. All entries should be made with a black lead pencil (No. 2).

a. Legibility of Entries. COMNAVMETOCCOM Form 3141/3 is an official document and is the primary record of weather encountered by the ship. All entries must be neat and legible. Avoid write overs and partial erasures that confuse the legibility of the data entered. It is recommended that a folder or board be devised to protect the form between observations.

b. Corrections Made Before Dissemination. Corrections may be made by erasure of the erroneous data only if the data has not been disseminated by any means (phone, radio, message transmittal, etc.). Erase the erroneous data on the form and enter the correct data in black.

c. Corrections made in Part I after Dissemination. If an error is discovered in encoded data after it has been disseminated by any means, the erroneous data may not be erased. Correct the error with a red pencil by drawing a line through the error and entering the correct data above it or on the next line. If space is insufficient, enter the correction in Column 14 with appropriate identification; e.g., SLPRES 969. When possible, disseminate a correction immediately after detecting an error in the transmitted data. Use the same dissemination given the erroneous report. Do not send a correction if the data in error has been updated by a later report with the same or greater dissemination. If a correction is disseminated, enter "COR" in Column 14 followed by the time (to the nearest minute UTC) the correction was disseminated.

d. Corrections Made in Part II after Dissemination. If an error is discovered in encoded data in the Ship Synoptic Message after it has been transmitted, the erroneous data may not be erased. Correct the error with a red pencil by drawing a line through the error and entering the correct data above it or on the next line. If space is insufficient, enter the correction in Column 72 with an appropriate identification; e.g., Nddff 12315. When possible, disseminate a corrected message immediately after detecting an error in a transmitted report. Use the same dissemination given in the erroneous report. When a correction is disseminated, enter "COR" in Column 72 followed by the time of the synoptic observation in question, and the time (to the nearest minute Universal Coordinated Time (UTC)) the corrected message was disseminated.

e. Verification of Disseminated Data. Exercise care to avoid disseminating incorrect data. Check all messages prior to dissemination. Recheck the observation and compare it to the disseminated data.

I.2.6. Quality Control of Records. The accuracy and completeness of entries encoded in both the Ship Observations and Ship Synoptic formats is important to all users of the data. On scene, the safety of ship and aviation operations depends on the accuracy of the observation. The accuracy of the encoded observation your unit transmits directly contributes to the accuracy of weather analyses, forecasts and warnings your ship receives.

a. Responsibility for Quality. The individual taking the observation is ultimately responsible for the accuracy of the recorded elements. As manpower permits, observations should be rechecked by another qualified member of the watch team as soon as possible after the observation is recorded. Personnel should not be utilized to check the month's observations before mailing for the sole purpose of submitting perfect records.

b. Observations. When observations are received at the Fleet Numerical Meteorology and Oceanography Center (FLENUMMETOCCEN), Monterey, California, they are stored, processed, and redistributed to other DoD activities and civil agencies. During processing, the report receives a vigorous format and environmental data quality check. Observations are stored for approximately 10-days and used by various models, tailored data products, and servers in addition to being provided electronically to the National Climatic Data Center, Ashville, North Carolina.

I.2.7. Fleet Support. When problems arise with observing equipment (barometer, barograph, anemometer, etc.) that cannot be solved by ship's personnel, assistance may be requested from the nearest NAVMETOCCOM activity outlined in NAVMETOCCOMINST 3140.1M (U.S. Navy Oceanographic and Meteorological Support Manual). Ships are encouraged to schedule visits to NAVMETOCCOM shore activities where additional training on observing techniques and procedures may be obtained.