



DEPARTMENT OF THE NAVY
COMMANDER
NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND
1020 BALCH BOULEVARD
STENNIS SPACE CENTER, MS 39529-5005

NAVMETOCOMINST 3140.14D

N3

20 MAY 1996

NAVMETOCOM INSTRUCTION 3140.14D

From: Commander, Naval Meteorology and Oceanography Command

Subj: PROCEDURES GOVERNING FLIGHT WEATHER BRIEFINGS AND PREPARING
DD FORM 175-1 AND U.S. NAVY FLIGHT FORECAST FOLDER

Ref: (a) OPNAVINST 3710.7Q
(b) NAVMETOCOMINST 3141.2
(c) NATOPS General Instrument Flight Manual

Encl: (1) Instructions Governing VFR Briefings
(2) Procedures for Conducting IFR Briefings and Preparing
and Using DD Form 175-1
(3) Instructions for Preparing U.S. Navy Flight Forecast
Folders

1. Purpose. To publish procedures governing briefings for flights conducted under Instrument or Visual Flight Rules (IFR/VFR); to prescribe procedures to enter weather data and forecasts on the DD Form 175-1; and to promulgate standard procedures for preparing the U.S. Navy Flight Forecast Folder. This instruction contains important revisions and should be reviewed in its entirety.

2. Cancellation. NAVOCEANCOMINST 3140.14C

3. Background. The information and advice provided to aviators are an important part in safely and successfully conducting each flight. A flight forecaster's responsibility is extremely important. Although the forecaster's role is advisory in nature, he/she must be prepared to make specific recommendations, (e.g.,



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recommending a more favorable route, an altitude change, to delay, or even cancel due to adverse or unfavorable weather conditions). The ultimate responsibility for the aircraft and the mission rests with the pilot in command. The forecaster is tasked to ensure every available resource is utilized in formulating the forecast and that product quality is given the highest priority. In conducting the verbal portion of the flight briefing, the forecaster must be clear and explicit, avoiding vague or loose terms (e.g., chance, possible, maybe) that tend to de-emphasize critical forecast elements.

4. Discussion. The Flight Weather Briefing Form, DD Form 175-1, provides aviators with a detailed overview of forecast weather conditions along a planned route of flight. As provided for in reference (a), the DD Form 175-1 shall be completed for all flights except those conducted under VFR conditions where a VFR certification stamp is an acceptable alternative. The contents of the U.S. Navy Flight Forecast Folder are designed to give aviators a comprehensive depiction, both in the vertical and horizontal, of environmental conditions predicted along the flight path. A DD Form 175-1 shall always be included with these folders.

5. Definitions. Throughout this instruction, the following definitions apply:

"shall" indicates a practice is mandatory.

"should" indicates a practice is recommended.

"may" indicates a practice is optional.

6. Action. Naval Meteorology and Oceanography Command activities and Marine Corps Weather activities shall prepare and issue the DD Form 175-1 in accordance with references (a) through (c), and the instructions and procedures contained in enclosures (1) through (3) of this instruction.

7. Effective Date. This instruction becomes effective 01 July 1996.

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8. Concurrence. This instruction has the concurrence of the Commandant of the Marine Corps. Marine Corps weather activities shall take such actions prescribed in this instruction which are not contradictory to the specifically expressed policies of the Commandant of the Marine Corps.



D. A. MAUTNER

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INSTRUCTIONS GOVERNING
VFR BRIEFINGS

1. General. In addition to the basic VFR guidelines listed in section 4.6.2 (Weather Briefing) of reference (a), the following VFR rules are of equal importance regarding VFR filing and briefing procedures:

a. Higher VFR Minima. The second note of paragraph 4.6.2.2 of reference (a) states: "If the intended VFR flight plan includes a mission (i.e., OLIVE BRANCH) or an airfield requiring VFR minimums higher than the basic 1,000-foot ceiling and 3-statute mile visibility, it is the responsibility of the pilot to advise the weather briefer of these higher minimums."

b. VFR Certification Stamp. Only VFR flights using the Military Flight Plan (DD-175) may use a VFR Certification Stamp in lieu of a completed DD Form 175-1.

2. Policy. All activities shall conduct VFR briefings in accordance with reference (a) and the procedures set forth as follows:

a. Pilots who file VFR plans and present a DD-175 to the forecaster may receive a VFR Certification Stamp if the pilot so requests and VFR criteria can be fulfilled throughout the flight. Otherwise, a complete DD Form 175-1 weather briefing shall be provided.

b. Pilots filing IFR plans shall be given a complete DD Form 175-1 briefing - even though VFR criteria could be fulfilled.

c. Pilots filing a combination flight plan (VFR/IFR) shall be given a complete DD Form 175-1 weather briefing. Use of the VFR Certification Stamp is not authorized for combination flight plans.

d. Activities utilizing a VFR Certification Stamp shall ensure that the stamp, as a minimum, contains the following information:

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"BRIEFING VOID _____ Z. FLIGHT AS PLANNED CAN BE CONDUCTED UNDER VISUAL FLIGHT RULES. VERBAL BRIEFING GIVEN AND HAZARDS EXPLAINED. FOLLOWING WWS/SIGMETS ARE KNOWN TO BE CURRENTLY IN EFFECT ALONG PLANNED ROUTE OF FLIGHT."

(Signature of Forecaster)

3. Records. An accurate record shall be maintained of briefings provided using the VFR Certification Stamp. This record may consist, in part, of a photo-copy of the DD Form 175 showing a completed VFR Certification Stamp, a DD Form 175-1, or a locally prepared form. Such records shall be retained for one year. Regardless of the format used, the following minimum information must be recorded:

- a. Date/Time (UTC) of the briefing
- b. VFR briefing number (Month and sequential number)
- c. A/C Type, BUNO, Event number
- d. Departure Point/ETD
- e. Flight Level
- f. Destination and Intermediate Stops (with ETAs)
- g. Description of any hazards, WWS and/or SIGMETS along the route of flight
- h. Briefing void time
- i. Forecaster's signature

4. Void Times. Refer to paragraph 2.e.4 of enclosure (2) of this instruction.

PROCEDURES FOR CONDUCTING IFR BRIEFINGS
AND PREPARING AND USING DD FORM 175-1

1. General. All entries on the DD Form 175-1 shall be entered in a neat and legible manner. Unless otherwise specified in reference (b) or in paragraph 2 of this enclosure, the following rules shall apply:

a. All times and dates shall be entered in UTC (Z).

b. All heights shall be entered to the nearest hundred feet above mean sea level (MSL) in three digits (e.g., 800 feet MSL recorded as 008, 1,200 feet MSL recorded as 012 and 15,000 feet MSL recorded as 150).

c. All wind directions and speeds shall be five digit entries of tens of degrees true and whole knots. Forecasters supporting Air Force operations must be prepared to provide station magnetic wind correction or winds in degrees magnetic upon request.

d. The word "enroute" (ENRT) shall not be used.

e. Terminal forecasts shall be entered in METAR/TAF code format. Visibility may be entered in statute miles or meters.

2. Form Entries. The following procedures shall be followed when completing the various sections and individual blocks on the DD Form 175-1. These procedures also apply to any substitute forms developed by aviation authorities for local use in lieu of the DD Form 175-1.

a. SECTION I - MISSION/TAKEOFF DATA. This section identifies the flight for which the form is being prepared, and applies to forecast conditions for takeoff and climb to flight level. Takeoff data, local weather warnings or MET watch advisory information shall be entered. Runway temperature, dewpoint, temperature deviation, pressure altitude and density altitude values are not mandatory unless the pilot or the person receiving the brief specifically states this information is desired.

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(1) DATE. Enter the day, month (first three letters) and last two digits of the year (e.g., 6 June 1997 shall be entered as 06 JUN 97 or 6 JUN 97).

(2) ACFT TYPE/NO. Enter aircraft type and the bureau number (BUNO), call sign or event number, as appropriate (e.g., F14/BUC44 or P3/0L177). If the flight includes more than one aircraft, enter the data above the block or in the remarks section.

FLIGHT WEATHER BRIEFING							
I. MISSION/TAKEOFF DATA							
DATE	ACFT TYPE/NO	DEP PT/ETD	RUNWAY TEMP	DEWPOINT	TEMP DEV	PRESSURE ALT	DENSITY ALT
6 JUN 97	F14/BUC 44	NPA/1600	28 °/c	20 °/c	+13	-150 FT	+1600 FT
SFC WIND	CLIMB WINDS		LOCAL WEA WRNG/MET WATCH ADV			RCR	
12010G18	22025		NONE				
REMARKS/TAKEOFF ALTN FCST							

(3) DEP PT/ETD. Enter the departure field's three or four letter identifier and the estimated time (UTC) of departure (e.g., KNPA/1600 or KNKT/0015).

(4) RUNWAY TEMP and DEWPOINT. Enter the forecast runway temperature and dew point for the ETD. This data may be entered and indicated in degrees Fahrenheit and/or Celsius, using a negative sign for below freezing temperatures.

(5) TEMP DEV. Enter the difference obtained from subtracting the forecast runway temperature from the U.S. standard atmosphere temperature corresponding to the field elevation. Enter and indicate this result as a positive or negative value in degrees Fahrenheit and/or Celsius.

(6) PRESSURE ALT AND DENSITY ALT. Entries shall be in feet preceded by either a negative, "-", or a positive, "+", sign as appropriate.

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(7) SFC WIND. Enter the five digit forecast surface wind, including gusts if applicable, for the ETD (e.g., 12010G18 recorded for a forecast surface wind of 120 degrees true at 10 knots with gusts of 18 knots).

(8) CLIMB WIND. Enter the five digit forecast winds for climb to flight level. This entry may be a mean value for low level flights, but should include winds forecast at specific altitudes during the climb for higher altitude flight levels.

(9) LOCAL WEA WRNG/MET WATCH ADV. Enter any weather warnings or advisories that are in effect or expected to be issued at the time of takeoff and climb-out. If no warnings or advisories are in effect, then "NONE" shall be entered in this block.

(10) RCR. Enter the Runway Condition Recording or equivalent braking action as reported by base air operations, if appropriate (e.g., IR10 recorded for ice on runway, decelerometer reading 10).

(11) REMARKS/TAKEOFF ALTN FCST. Enter any unusual conditions that might affect the aircraft during take off and climb-out that are not indicated elsewhere on the form. Enter the forecast weather conditions at an alternate takeoff field when requested (use the appropriate terminal forecast and format as shown for section III).

b. SECTION II - ENROUTE DATA. This section applies to conditions within a minimum of 25 nautical miles either side of the intended flight route. Forecasters should include weather information above and/or below the intended flight level if it is considered significant, or may be of value to the pilot.

Note: Any WWS/SIGMETS/AIRMETS or similarly issued warnings and advisories in effect along the proposed route of flight shall be entered in the section IV remarks and described to the pilot receiving the brief. If warnings are issued after the initial brief and prior to ETD, forecasters should make every effort to notify the air crew.

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II. ENROUTE DATA																								
FLT LEVEL 250 → NBC 170 → NGU				FLT LEVEL WINDS/TEMP 24025 / -24 18020 / -17																				
CLOUDS AT FLT LEVEL <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> IN AND OUT				MINIMUM VISIBILITY AT FLT LEVEL OUTSIDE CLOUDS 7 MILES DUE TO <input type="checkbox"/> SMOKE <input type="checkbox"/> DUST <input type="checkbox"/> HAZE <input type="checkbox"/> FOG <input type="checkbox"/> PRECIPITATION <input checked="" type="checkbox"/> NO OBSTRUCTION																				
MINIMUM CEILING LOCATION 008 FT AGL CB NBC				MAXIMUM CLOUD TOPS LOCATION 220 FT MSL CI NPA-NBC				MINIMUM FREEZING LEVEL LOCATION 110 FT MSL NGU																
THUNDERSTORMS				TURBULENCE				ICING				PRECIPITATION												
MWA/WV NO				CAT ADVISORY				NONE <input checked="" type="checkbox"/>				NONE												
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AREA	LINE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>		ISOLATED 1-24	MT 400																					
<input checked="" type="checkbox"/>		FEW 3-15	MT 360																					
		SCATTERED 16-45																						
		NUMEROUS-MORE THAN 45																						
HAIL, SVR, TURB, SEVERE, ICING PRECIPITATION AND LIGHTNING EXPECTED IN AND NEAR TSTMS.				LEVELS SFC-030				LEVELS				FRZG												
LOCATION NBC				LOCATION NPA				LOCATION				LOCATION COASTAL SC												

(1) FLT LEVEL. Enter the flight level of the designated flight in hundreds of feet MSL. Multi-level flights shall be indicated by flight level and destination call letters (i.e., 250→KNBC, 170→KNGU).

(2) FLT LEVEL WINDS/TEMPS. Enter as many increments of wind and temperature (degrees Celsius) as are necessary to accurately describe the enroute wind and temperature conditions. The use of the words "See charts" or "OPARS # ..." are only authorized for the following conditions:

(a) Flight Forecaster Folders. When briefing flights which will be traveling long distances or operating over broad areas at varying altitudes and a Flight Forecast Folder is being provided, the entry "See Wind Charts - Folder # ..." may be entered in lieu of specific wind data. When this method is used, a copy of all wind charts contained in the folder shall be attached to the in-house copy of the DD Form 175-1.

(b) OPTIMUM PATH AIRCRAFT ROUTING SYSTEM (OPARS) Data.

When OPARS data are provided which contain valid wind data, the word "OPARS # " may be entered along with the OPARS number. The forecaster shall ensure that a copy of the OPARS printout is attached to the in-house copy of the DD Form 175-1.

(3) CLOUDS AT FLT LEVEL. Check the box(es) which best describe(s) the forecast cloud conditions at flight level. When more than one box must be checked to best represent cloud conditions, locations shall be entered above the appropriate box(es). "IN AND OUT" indicates that between 1% and 45% of the flight will be through clouds.

(4) MINIMUM VISIBILITY. Enter the forecast minimum horizontal visibility at flight level, outside of clouds, in statute miles. When restricting phenomena are present, the appropriate box(es) shall be checked. If no restricting phenomena is present, the "NO OBSTRUCTION" box shall be checked. Variable range entries (e.g., 1V3) are not authorized.

(5) MINIMUM CEILING. Enter the location and forecast minimum ceiling along the route of flight in hundreds of feet above ground level (AGL). The forecaster may annotate to the right of "AGL" the significant cloud type, weather or obstructions to vision causing the minimum ceiling.

(6) MAXIMUM CLOUD TOPS. Enter the forecast maximum tops of significant clouds (excluding thunderstorms) along the intended route of flight and indicate their locations in hundreds of feet above mean sea level (MSL). The aircraft's flight level normally determines what cloud tops are significant. For example, if the flight level is 16,000 feet, then the tops of middle or low clouds should be entered rather than the top of a cirrus layer. The exception is that an aircraft involved in celestial navigation flights may be concerned with the maximum cloud tops above flight level which may be an obscuring cirrus layer.

(7) MINIMUM FREEZING LEVEL. Enter the height of the minimum freezing level in hundreds of feet above mean sea level (MSL) and its location.

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(8) THUNDERSTORMS. Pilots shall be made aware of all thunderstorm activity along the intended route of flight, regardless of the aircraft's flight level. The following procedures shall be followed when completing the thunderstorm section of the DD Form 175-1:

(a) MWA/WW NO. Enter the WW/Convective SIGMET/MWA (or CAWW number) when appropriate. The existence of any of these warnings shall be further defined in the boxes below with the forecaster's estimate of aerial coverage (e.g., SCATTERED 16-45%) and the maximum cloud height in hundreds of feet above mean sea level (MSL) (e.g., 600). The aerial coverage and maximum cloud height forecast is not necessarily the Maximum Instantaneous Coverage (MIC) or the Total Area Affected (TAA) percentage of the indicated MWA. If no warnings are in effect, the block shall remain blank.

(b) NONE. This box is checked only when no thunderstorm activity is forecast along the entire intended route of flight.

(c) AREA. Check this box when the forecast thunderstorm activity will be of the air mass variety or will occur in clusters.

(d) LINE. Check this box when the forecast thunderstorm activity will form a line (e.g., frontal, squall, and/or orographically induced convective activity).

Note: Whenever thunderstorms are forecast, at least one of these boxes (AREA/LINE) shall be checked.

(e) COVERAGE. The coverage blocks range from "ISOLATED" to "NUMEROUS". Mark the box that best describes the coverage through each separate thunderstorm area. For each box marked, enter to the right (on the same line) the height of the maximum cloud tops in hundreds of feet above mean sea level (MSL) associated with the thunderstorm activity.

(f) LOCATION. Enter the location(s) of thunderstorm activity using standard geographic locations, station identifiers

or LAT/LONG combinations as appropriate to clearly define the affected areas.

- Note: 1. In the example, the forecaster checked several coverage boxes to fully describe the enroute thunderstorm hazard. In such cases different annotation marks (✓ and X) are used to distinguish the separate areas of thunderstorm activity. Appropriate boxes are marked and each mark is identified in the "LOCATION" block.
2. Whenever thunderstorms are forecast to affect a flight, the severe weather statement on the DD Form 175-1 above the "LOCATION" block shall be elucidated to the pilot receiving the brief.

(9) TURBULENCE (Not Associated With Thunderstorms). Enter the date/time group of any SIGMET or AIRMET. If the forecast is based on a SIGMET or AIRMET, strike out "CAT" and substitute the appropriate entry. Mark the appropriate intensity box(es) and mark whether the turbulence will be outside or inside of clouds. In the "LEVELS" block, ensure the upper and lower limits of the turbulence zone(s) are indicated. Location(s) of the turbulence zone(s) shall be indicated in the "LOCATION" block. To avoid confusion, different annotation marks to correlate entries should be used. When no turbulence is forecast, the "NONE" block shall be checked.

(10) ICING (Not Associated With Thunderstorms). Denote icing conditions forecast along the intended flight route by type, levels and locations. Check the appropriate box for accumulation and type. In the "LEVELS" block ensure upper and lower limits of icing zone(s) are indicated. Locations of icing zone(s) shall be indicated in the "LOCATION" block. To avoid confusion, different annotation marks to correlate entries should be used. When no icing is forecast, the "NONE" block shall be checked.

(11) PRECIPITATION (Not Associated With Thunderstorms). Mark the block(s) indicating the type and intensity of all forecast precipitation. Location(s) of precipitation shall be indicated in the "LOCATION" block. To avoid confusion, different annotation

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marks to correlate entries should be used. When no precipitation is forecast, the "NONE" block shall be checked.

c. Section III - Terminal Forecast. Enter the forecast conditions at the ultimate destination, intermediate stops and alternates as required. Alternate requirements are based on the lowest forecast predominant or TEMPO condition. Use an additional DD Form 175-1 as a continuation sheet for any terminal forecasts that cannot be entered in the space provided.

(1) AIRDROME. Cross out either "DEST" or "ALTN" as appropriate, and enter the station identifier. Entries shall be in chronological order when more than one stop is planned.

(2) CLOUD LAYERS, VSBY/WEA, SFC WIND. Enter the forecast conditions expected during the valid time. Conditions described by a change group (e.g., TEMPO) shall be entered on the next line and shall be preceded by the change group.

III. TERMINAL FORECASTS					
AIRDROME	CLOUD LAYERS	VSBY/WEA	SFC WIND	ALTIMETER	VALID TIME
DEST/ ALTN NBC	BKN025 BKN 180	7	19010G17	2992 INS	1630Z TO 1830Z
DEST/ALTN TEMPO		2TSRA		INS	Z TO Z
DEST/ALTN CHA	BKN020 BKN 200	7	19012G20	2991 INS	1645Z TO 1845Z
DEST/ ALTN NGU	BKN180	7	17010	2988 INS	1930Z TO 2130Z
DEST/ALTN				INS	Z TO Z
DEST/ALTN				INS	Z TO Z
DEST/ALTN				INS	Z TO Z
DEST/ALTN				INS	Z TO Z

(3) ALTIMETER. Enter the forecast minimum altimeter setting for the valid time in inches of mercury.

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(4) VALID TIME. The valid time shall cover the period one hour before to one hour after the ETA at the indicated airdrome.

d. Section IV - Comments/Remarks.

IV. COMMENTS/REMARKS	
BRIEFED ON LATEST RCR FOR DESTN AND ALTN <input type="checkbox"/> YES <input checked="" type="checkbox"/> NOT AVAILABLE	REQUEST PIREP AT <i>NBC 344.6</i>
<i>NBC 15# SCT025 BKN 180 7 80/69 23006 3001</i>	

(1) BRIEFED ON LATEST RCR FOR DSTN AND ALTN. Mark the appropriate box.

(2) REQUEST PIREP AT. Enter the specific location(s) where a PIREP would be beneficial. To assist the pilot, enter the weather activity's METRO frequency when available.

(3) Enter the latest hourly (and any special) surface observation for the first destination entered in section III. Precede this data with the station identifier and time (UTC) of observation.

(4) Use this section to cover any other significant meteorological information not described elsewhere on the DD Form 175-1 (e.g., runway conditions at destinations/alternates; amplifying information/recommendations concerning severe weather conditions; low ceilings, visibilities at potential (unplanned) divert fields enroute).

(5) Use an additional DD Form 175-1 as a continuation sheet for any remarks that cannot be legibly entered in the space provided.

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e. Section V - Briefing Record.

V. BRIEFING RECORD				
WEA BRIEFED <i>1350 Z</i>	FLIMSY BRIEFING NO. <i>06-21</i>		FORECASTER'S SIGNATURE OR INITIALS <i>I M SAILOR</i>	
VOID TIME <i>1620 Z</i>	EXTENDED TO <i>Z</i>	WEA REBRIEFED AT <i>Z</i>	FORECASTER'S INIT	NAME OF PERSON RECEIVING BRIEFING <i>I.R. PILOT</i>

Note: If a continuation sheet is necessary to complete the briefing record, it shall be an additional DD Form 175-1. Enter the "FLIMSY BRIEFING NO." from the first DD Form 175-1 onto the continuation.

(1) WEA BRIEFED. Enter the UTC time the briefing was completed.

(2) FLIMSY BRIEFING NO. Enter the digit(s) indicating the month and sequential briefing number for the month (e.g., 06-21 indicates the briefing is the 21st DD Form 175-1 completed during the month of June).

(3) FORECASTER'S SIGNATURE OR INITIALS. Enter a legible signature. The forecaster's initials may be entered if they are absolutely distinguishable from co-forecasters.

(4) VOID TIME. Quoted from reference (a), "Navy and Marine Corps forecasters are required to provide flight weather briefings (DD 175-1 briefs or VFR stamps) within 2 hours of ETD and to assign briefing void times that do not exceed ETD plus one-half hour." (i.e., with an ETD of 1200Z, weather must be briefed, or rebriefed, no earlier than 1000Z, and actual departure must be no later than 1230Z).

(5) EXTENDED TO. Enter an updated void time whenever the forecast is updated (i.e., rebriefed). The updated void time is subject to the same limitations as the original (see "VOID TIME" above).

(6) WEA REBRIEFED AT. Enter the time a rebriefing was completed. An entry is required whenever a forecast is updated in any manner, including a request for an extension. When a request for an extension is received, the forecaster shall review the entire DD Form 175-1 to ensure its validity and, when appropriate, make changes to the basic form and brief the pilot on those changes. Any changes, deletions or additions to the form shall be initialed by the updating forecaster and a "WEA REBRIEFED AT" entry shall be made. If the changes to the DD Form 175-1 are considered critical or clutter the form, a new DD Form 175-1 should be completed with a new Flimsy Briefing No. in lieu of an extension or a rebrief.

(7) FORECASTER'S INIT. The forecaster granting the extension shall enter his initials with those of the person receiving the rebriefing.

(8) NAME OF PERSON RECEIVING BRIEFING. As a minimum, enter the Rank/Rate and last name of the person receiving the briefing. The person receiving the briefing shall be the pilot in command or a designated member of the flight crew.

3. Completion of the DD Form 175-1. The following additional procedures shall be followed when providing a DD Form 175-1 briefing:

a. Over-the-Counter Briefings. The forecaster shall complete the DD Form 175-1, provide the person receiving the brief with the original, and retain one copy for in-house files. In the case of group briefings (either over-the-counter or in squadron ready rooms) for multi-aircraft flights, the forecaster shall complete and retain the original DD Form 175-1 and provide sufficient copies for each aircraft.

b. Remote Briefings. For remote briefings (e.g., phone, Closed Circuit TV (CCTV), Weather Vision, or automated transmissions), the forecaster shall complete and retain the original DD Form 175-1 and, whenever possible, provide a copy to the person(s) receiving the brief (e.g., facsimile). The pilot(s) is responsible for completing the DD Form 175-1 for remote briefings obtained without the benefit of a copy of the forecaster

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prepared DD Form 175-1. Section IV of the file copy of the DD Form 175-1 shall be annotated as to the method of remote briefing.

4. Locally Prepared Forms. While the use of locally prepared forms to complement weather vision is encouraged, activities are reminded that such forms must present the same data provided on the DD Form 175-1. When locally prepared forms are utilized, they shall be treated the same as the DD Form 175-1 for record purposes.

5. Records. All DD Form 175-1 and/or locally prepared substitute forms shall be retained on board for a minimum of one year. Individually significant DD Form 175-1s (e.g., briefings of aircraft involved in mishaps) shall be retained as long as required. Automatically prepared forms shall be down loaded to diskette, properly marked for ease of identification (i.e., DD Form 175-1 June 1997 archival), and retained for a minimum of one year.

INSTRUCTIONS FOR PREPARING
U.S. NAVY FLIGHT FORECAST FOLDER

1. Issuing. The Flight Forecast Folder (CNOG 3140/25) is normally requested by pilots/flight crews when they are transiting across large continental or oceanic areas. Pilots should provide the forecasting activity as much lead time as possible to prepare the folder. Reference (a) recommends a minimum of two hours advance notification. Pilots should be encouraged to turn in their Flight Forecast Folder at their destination (U.S. Military base weather facility) or to mail the folder to the originating activity with appropriate comments upon mission completion.

2. Contents. The Flight Forecast Folder shall consist of the following:

a. Minimum contents:

- (1) U.S. Navy Flight Forecast Folder (CNOG 3140/25).
- (2) DD Form 175-1 (Flight Weather Briefing Form).
- (3) Horizontal Weather Depiction (HWD) Chart.
- (4) Upper Wind Charts applicable to the intended flight level(s).

b. Additional contents when appropriate or upon request:

- (1) Optimum Path Aircraft Routing System (OPARS) flight plan or U.S. Air Force Computer Flight Plan (CFP).
- (2) Ditch Heading Chart for over water flights.
- (3) Predicted Altimeter Setting Chart for over water flights or portions thereof at altitudes of 1500 feet or below.
- (4) Miscellaneous charts tailored for specific requirements.

3. Preparation. All base charts shall be prepared using the symbols listed on page two of the Flight Forecast Folder. Charts

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shall be drawn only in black or dark blue to facilitate the use during night flights. (Courtesy Flight Forecast Folders prepared for VIP passengers may use traditional chart colors.) Individual items in the packet shall be prepared as follows:

a. U.S. Navy Flight Forecast Folder (CNOC 3140/25). The folder is largely self explanatory; however, the following instructions are included for clarification:

(1) The section on page one, entitled "Folder Includes", lists forms and charts that must be included in the folder. Any other items included should be listed in the forecaster's remarks section.

(2) The PIREP form (page three) is to be brought to the attention of the pilot. For transoceanic flights, the use of AF Form 72 Air Report (AIREP) in lieu of the PIREP form is encouraged; AIREPS provide important data for computer analysis centers.

(3) Page four is a self-mailer for the folder. The issuing activity shall enter its mailing address to the right of the "To:". The receiving activity shall review the PIREP/AIREP data, enter its address in the return address section, and mail the folder to the originating activity within 72 hours. When an AIREP form is used, it shall also be returned with the folder.

b. DD Form 175-1. This form shall be completed in accordance with enclosure (2) of this instruction.

c. Horizontal Weather Depiction (HWD) Chart. The HWD chart is basically a strip chart containing operationally significant weather data. This chart is required in all flight folders. The basic chart or charts may be prescribed by individual activities. Whenever possible, the charts listed in Part I, Volume II, of the DMA Catalog of Maps, Charts, and Related Products shall be used.

(1) Size. The HWD chart should be approximately "kneeboard" size - large enough to allow legible entries, but small enough to permit easy handling within the cockpit. Normally, the width should not exceed 8 inches.

(2) Coverage. The base chart should normally be prepared to cover all routes cleared by the activity. Stations which forecast for extensive geographic areas or support missions along divergent routes may require more than one base chart.

(3) Valid Time. Locally prepared HWD charts, prepared in advance to meet daily support requirements, shall be 12-hour prognostic charts verifying at synoptic times. When route of flight or a substantial overlap of data necessitates preparing a more tailored HWD for a specific flight, the HWD shall be prepared to verify near the mid-time of the flight. When dealing with a short-fused request which necessitates using centrally prepared charts, the charts which verify at the synoptic time nearest the mid-time of the flight shall be used.

(4) Flight Level. All HWD charts shall depict the atmospheric conditions at the surface and extend to a minimum of 5,000 feet above the proposed flight level (or higher if requested) along the entire intended route of flight. Required entries for the HWD include:

(a) Areas of five/eighths or more cloudiness (including cirriform clouds which could prevent a celestial fix). Cloud coverage (in eighths) with bases/tops of all cloud areas/types shall be included.

(b) All areas of cumulonimbus (CB) and towering cumulus (TCU) clouds. Cloud coverage (in eighths) with bases/tops of each cloud areas shall be included.

(c) Height of freezing level above mean sea level (MSL) should be depicted at 5,000 foot intervals or by at least two levels best depicting the isotherm contours.

(d) Fronts and pressure centers including their direction of movement and speed.

(e) Significant weather and obstructions to vision.

(f) Hazards to flight (icing, turbulence, etc.).

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(g) Proposed route of flight. (If the flight route is classified, the entire folder shall be classified accordingly).

(5) Miscellaneous. Any additional information deemed appropriate by the forecaster or requested by the pilot shall be entered.

d. Upper Wind Charts. These charts shall be constructed from forecast data that will verify as close as possible to the mid-time of the flight. At a minimum, these charts should include data that are representative of upper level winds 5,000 feet above and below the proposed cruise altitude. If constant pressure level charts are used for a flight between chart levels, a minimum of two charts (e.g., 400mb for FL240 and 300mb for FL270) shall satisfy this requirement.

e. Ditch Heading Chart. A plot of the point values of predicted ditch headings shall be included for all over water flights.

Note: Ditch headings are given in degrees magnetic. Ensure the chart is clearly annotated to indicate magnetic, vice true compass bearings.

f. Predicted Altimeter Setting Chart. A plot of the point values of predicted altimeter settings shall be provided for all over water flights operating at 1,500 feet and below, or when requested.

g. Miscellaneous Charts. Any other operationally necessary charts for specific flights, or those requested by the pilot, shall be included (e.g., constant pressure, streamline, surface winds, SST, etc.).

h. Legend. The following legend shall be entered in a conspicuous place on all charts issued with a folder:

(1) Title of chart.

(2) Valid time of chart (e.g., 04/1200Z).

(3) Station identification of activity issuing the folder.

(4) Folder number (sequential by month).

4. Records. Although activities are not required to retain duplicate copies of Flight Forecast Folders and their contents (except for wind charts as required by paragraph 2b(1)(a) of enclosure (2) of this instruction), local procedures and base operations may require package retention. At a minimum, a record of the number of folders issued is required. This record shall be retained for one year in accordance with SECNAVINST 5212.5C, and shall include the following information:

- a. Month and sequential number of the folder.
- b. Valid time and source of all charts included in the folder.
- c. Flimsy briefing number of the associated DD Form 175-1.