WORLDWIDE MARINE RADIOFACSIMILE BROADCAST SCHEDULES

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC and ATMOSPHERIC ADMINISTRATION

NATIONAL WEATHER SERVICE

July 16, 2015
INTRODUCTION

Ships....The U.S. Voluntary Observing Ship (VOS) program needs your help! If your ship is not participating in this worthwhile international program, we urge you to join. Remember, the meteorological agencies that do the weather forecasting cannot help you without input from you. ONLY YOU KNOW THE WEATHER AT YOUR POSITION!!

Please report the weather at 0000, 0600, 1200, and 1800 UTC as explained in the National Weather Service Observing Handbook No. 1 for Marine Surface Weather Observations.

Within 300 nm of a named hurricane, typhoon or tropical storm, or within 200 nm of U.S. or Canadian waters, also report the weather at 0300, 0900, 1500, and 2100 UTC. Your participation is greatly appreciated by all mariners.

For assistance, contact a Port Meteorological Officer (PMO), who will come aboard your vessel and provide all the information you need to observe, code and transmit weather observations.

This publication is made available via the Internet at:


The following webpage contains information on the dissemination of U.S. National Weather Service marine products including radiofax, such as frequency and scheduling information as well as links to products. A listing of other recommended webpages may be found in the Appendix.

http://www.weather.gov/marine

This PDF file contains links to http pages and FTPMAIL commands. The links may not be compatible with all PDF readers and e-mail systems. The Internet is not part of the National Weather Service's operational data stream and should never be relied upon as a means to obtain the latest forecast and warning data. Become familiar with and use other means such as NOAA Weather Radio to obtain the latest forecasts and warnings. Please read our disclaimer http://www.nws.noaa.gov/disclaimer.php.
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ABOUT THIS PUBLICATION

The schedules contained in this publication were obtained from official and unofficial sources. The information herein may neither be complete or accurate. Wherever possible, the schedules are dated with the latest change available. The National Weather Service would like to thank everyone who provided assistance.

For ease of use, all stations are listed by WMO region, in alphabetical order, by country and location. All times listed herein are Universal Coordinated Time (UTC), unless otherwise indicated.

Unless otherwise stated, assigned frequencies are shown, for carrier frequency subtract 1.9 kHz. Typically dedicated radiofax receivers use assigned frequencies, while receivers or transceivers, connected to external recorders or PC's, are operated in the upper sideband (USB) mode using carrier frequencies.

For information on weather broadcasts worldwide, also refer to NGA Publication 117, the Canadian Coast Guard Radio Aids to Navigation (Canada Only) and the British Admiralty List of Signals, which are updated through Notices to Mariners. Information on these and other marine weather publications may be found in Appendix D. These publications are HIGHLY recommended.

This document also includes information on how to obtain National Weather Service text forecasts, graphic forecasts, and marine observations via the Internet and e-mail (FTPMAIL). Mariners are highly encouraged to explore these options.

This PDF file contains links to http pages and FTPMAIL commands. The links may not be compatible with all PDF readers and e-mail systems. The Internet is not part of the National Weather Service's operational data stream and should never be relied upon as a means to obtain the latest forecast and warning data. Become familiar with and use other means such as NOAA Weather Radio to obtain the latest forecasts and warnings. Please read our disclaimer http://www.nws.noaa.gov/disclaimer.php.

The accuracy of this publication depends on YOUR input.

Please direct comments, recommendations, and corrections for this publication to:

National Weather Service W/AFS26
1325 East-West Highway
Silver Spring, MD 20910 USA
1-301-427-9390
1-301-713-1520 (fax)
marine.weather@noaa.gov
AFRICA
**CAPE NAVAL, SOUTH AFRICA**

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<th>FREQUENCIES</th>
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<td>4014 kHz</td>
<td>16Z-06Z (when available)</td>
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<td>ZSJ</td>
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<th>TIME</th>
<th>CONTENTS OF TRANSMISSION</th>
<th>RPM/IOC</th>
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<td>0430</td>
<td>SCHEDULE</td>
<td>120/576</td>
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<td>0500</td>
<td>SURFACE ANALYSIS(SHIPPING)</td>
<td>120/576</td>
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<td>ASXX</td>
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<tr>
<td>0630</td>
<td>AIR PROGNOSES (PREVIOUS DAY’S RUN)</td>
<td>120/576</td>
<td>1200</td>
<td>FUXX</td>
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<tr>
<td>0730</td>
<td>SURFACE PROGNOSES (PREVIOUS DAY’S RUN)</td>
<td>120/576</td>
<td>1200</td>
<td>FSXX</td>
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<tr>
<td>0800</td>
<td>ANTARCTIC ICE LIMITS (OCTOBER TO MARCH)</td>
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<td>AIAA</td>
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<tr>
<td>0915</td>
<td>RTTY WEATHER BULLETINS FOR COASTAL WATERS AND HIGHSEAS RTTY (170 Hz shift, 75 baud)</td>
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<td>0600</td>
<td>ASXX</td>
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<td>1030</td>
<td>SURFACE ANALYSIS(SHIPPING)</td>
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<tr>
<td>1100</td>
<td>SURFACE PROGNOSES</td>
<td>120/576</td>
<td>0000</td>
<td>FSXX</td>
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<tr>
<td>1530</td>
<td>SURFACE ANALYSIS(SHIPPING)</td>
<td>120/576</td>
<td>1200</td>
<td>ASXX</td>
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<tr>
<td>1700</td>
<td>RTTY WEATHER BULLETINS FOR COASTAL WATERS AND HIGHSEAS RTTY (170 Hz shift, 75 baud)</td>
<td>120/576</td>
<td>1800</td>
<td>ASXX</td>
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MAP AREAS:
- **ASXX**: 1:20,000 Lambert 00S20W 00S70E 60S50W 60S90E
- **FUXX**: 1:20,000 Mercator 05S15W 05S60E 60S15W 60S60E
- **FSXX**: 1:20,000 Mercator 05S15W 05S60E 60S15W 60S60E
- **AIAA**: 30E to 30W Antarctic coast to edge of ice pack except NIC West

(INFORMATION DATED 2009)  [http://old.weathersa.co.za/Marine/FrequencyShipFCBroadcast.jsp]
ASIA
**TOKYO, JAPAN**

**CALL SIGNS**  **FREQUENCIES**  **TIMES**  **EMISSION**  **POWER**

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<tr>
<th>Call</th>
<th>Frequency</th>
<th>Times</th>
<th>Emission</th>
<th>Power</th>
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<td>JMH2</td>
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<td>JMH4</td>
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**TIME**  **CONTENTS OF TRANSMISSION**  **RPM/IOC**  **VALID TIME**  **MAP AREA**

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<th>Contents of Transmission</th>
<th>RPM/IOC</th>
<th>Valid Time</th>
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<td>0000/1200</td>
<td>RETRANSMISSION OF 2200/0750 (1)</td>
<td>120/576</td>
<td>12/06</td>
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<tr>
<td>0200/------</td>
<td>96 HR SURFACE PRESSURE, PRECIP PROGS</td>
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<td>1200</td>
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<tr>
<td>0400/------</td>
<td>120 HR SURFACE PRESSURE, PRECIP PROGS</td>
<td>120/576</td>
<td>1200</td>
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<tr>
<td>1220/------</td>
<td>12/24/48/72 HR OCEAN WAVE PROG</td>
<td>120/576</td>
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<td></td>
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<tr>
<td>1240/------</td>
<td>24 HR 500 hPa TEMPERATURE AND 700 hPa DEWPOINT DEPRESSION PROG</td>
<td>120/576</td>
<td>0000</td>
<td></td>
</tr>
<tr>
<td>1251/------</td>
<td>36 HR 500 hPa TEMPERATURE AND 700 hPa DEWPOINT DEPRESSION PROG</td>
<td>120/576</td>
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<tr>
<td>0103/1303</td>
<td>TEST CHART</td>
<td>120/576</td>
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<tr>
<td>1310/</td>
<td>METEOROLOGICAL SATELLITE PICTURE (MSAT)</td>
<td>120/576</td>
<td>00/12</td>
<td>C'</td>
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<tr>
<td>1330/------</td>
<td>RETRANSMISSION OF 1019/0730</td>
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<tr>
<td>1350/1530</td>
<td>TROPICAL CYCLONE FORECAST(1)</td>
<td>120/576</td>
<td>00/12</td>
<td>C'</td>
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<tr>
<td>1540/------</td>
<td>RETRANSMISSION OF 0210 (2)</td>
<td>120/576</td>
<td>00/12</td>
<td>C'</td>
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<tr>
<td>1440/------</td>
<td>SURFACE ANALYSIS</td>
<td>120/576</td>
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<tr>
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<td>THE FIRST RETRANSMISSION OF 0240/1440</td>
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<tr>
<td>1540/------</td>
<td>BROADCAST SCHEDULE and MANUAL AMENDMENTS</td>
<td>120/576</td>
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<tr>
<td>1540/1640</td>
<td>TROPICAL CYCLONE FORECAST (6)</td>
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<tr>
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<td>OCEAN WAVE ANALYSIS</td>
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<tr>
<td>1640/------</td>
<td>500 hPa HEIGHT, TEMPERATURE</td>
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<td>C</td>
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<tr>
<td>1700/------</td>
<td>850 hPa HEIGHT, TEMPERATURE, DEW POINT DEPRESSION</td>
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<td>00/12</td>
<td>C</td>
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<td>120/576</td>
<td>1200</td>
<td>X</td>
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<td>1739/------</td>
<td>24 HR 500 hPa HEIGHT, VORTICITY PROGNOSIS</td>
<td>120/576</td>
<td>00/12</td>
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<tr>
<td>1750/------</td>
<td>24 HR SURFACE PRESSURE, PRECIPITATION PROGNOSIS</td>
<td>120/576</td>
<td>00/12</td>
<td></td>
</tr>
<tr>
<td>1750/------</td>
<td>24 HR SURFACE PRESSURE, WIND, FOG, ICING, SEA ICE PROG</td>
<td>120/576</td>
<td>0000</td>
<td>C'</td>
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<tr>
<td>1800/------</td>
<td>36 HR 500 hPa HEIGHT, VORTICITY PROGNOSIS</td>
<td>120/576</td>
<td>1200</td>
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<tr>
<td>1810/------</td>
<td>36 HR 500 hPa HEIGHT, VORTICITY PROGNOSION</td>
<td>120/576</td>
<td>1200</td>
<td></td>
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<tr>
<td>1821/------</td>
<td>24 HR 500 hPa TEMPERATURE AND 700 hPa DEWPOINT DEPRESSION PROG</td>
<td>120/576</td>
<td>1200</td>
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<tr>
<td>1832/------</td>
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<td>1850/------</td>
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<td>1910/------</td>
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<tr>
<td>1930/------</td>
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<tr>
<td>1950/------</td>
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<td>2010/------</td>
<td>24 HR COASTAL WAVE PROG (1)</td>
<td>120/576</td>
<td>1200</td>
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<tr>
<td>2040/------</td>
<td>SURFACE ANALYSIS</td>
<td>120/576</td>
<td>06/18</td>
<td>C'</td>
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<tr>
<td>2100/------</td>
<td>24 HR SURFACE PRESSURE, WIND, FOG, ICING, SEA ICE PROG</td>
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<td>C</td>
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<td>2150/------</td>
<td>RETRANSMISSION OF 0820</td>
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TOKYO, JAPAN

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<th>MAP</th>
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<tr>
<td>0500-0700</td>
<td>48/72HR SURFACE PRESSURE, PRECIPITATION PROGNOSIS</td>
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<td>1019-----</td>
<td>SEA ICE CONDITION ANAL(4), 48HR &amp; 168 HR PROGS(5)</td>
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<td>RETRANSMISSION OF 0651/2100</td>
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NOTES:
1. IN CASE OF TROPICAL CYCLONE
2. EVERY TUESDAY AND FRIDAY
3. ON THE 20TH AND 21ST.
4. EVERY TUESDAY AND FRIDAY (SEASONAL) RETRANSMISSION: AT 0130 ON THE NEXT DAY
5. EVERY WEDNESDAY AND SATURDAY (SEASONAL) RETRANSMISSION: AT 0130 ON THE NEXT DAY
6. IF A TROPICAL CYCLONE IS EXPECTED IN 4 DAYS

MAP AREAS:
- **C**: 1:20,000,000 27N 062E, 51N 152W, 05S 106E, 02N 160E
- **C'**: 1:20,000,000 39N 066E, 39N 146W, 01S 113E, 01S 167E
- **C''**: 1:20,000,000 38N 067E, 39N 148W, 01S 112E, 01S 167E
- **L**: 1:10,000,000 SEA OF OKHOTSK, NORTHERN SEA OF JAPAN, BO HAI, AND ADJACENT WATERS OF THE NORTH PACIFIC.
- **L'**: 1:05,000,000 49N 140E, 49N 151E, 41N 140E, 40N 149E
- **X**: 1: 6,000,000 46N 107E, 43N 160E, 18N 118E, 17N 147E


PEVEK, CHUKOTKA PENINSULA

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<tr>
<td>1430-1630</td>
<td>ICE</td>
<td>90/576</td>
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(INFORMATION DATED 11/97)
TAIPEI, REPUBLIC OF CHINA

**CALL SIGN** | **FREQUENCIES kHz** | **TIMES** | **EMISSION** | **POWER kW**
---|---|---|---|---
BMF | 4616 | J3C | 10
8140 | J3C | 10
13900 | J3C | 10
18560 | J3C | 10

**TIME** | **CONTENTS OF TRANSMISSION** | **RPM/IOC** | **VALID TIME** | **MAP AREA**
---|---|---|---|---
0040/------ | BROADCAST SCHEDULE | 120/576 | | |
0110/1300 | TYPHOON WARNINGS* (ENGLISH & CHINESE) | 120/576 | 00/12 | |
0120/1320 | GMS SATELLITE IMAGE | 120/576 | 00/12 | |
0305/1505 | FISHERY WEATHER FORECAST (IN CHINESE) | 120/576 | 00/12 | |
0330/1530 | SURFACE ANALYSIS WITH PLOTTED DATA | 120/576 | 00/12 | |
0350/------ | 24HR SURFACE PROG | 120/576 | 0000 | |
0410/1600 | TYPHOON WARNING* (ENGLISH & CHINESE) | 120/576 | 03/15 | |
0430/1620 | 500 hPa HEIGHT ANALYSIS WITH PLOTTED DATA | 120/576 | 00/12 | |
0440/1630 | SURFACE PRESSURE ANALYSIS | 120/576 | 00/12 | |
0450/1640 | RFS 500 hPa HEIGHT ANALYSIS | 120/576 | 00/12 | |
0500/1650 | RFS SURFACE PRESSURE PROGNOSIS 12 HOUR | 120/576 | 00/12 | |
0510/1700 | RFS SURFACE PRESSURE PROGNOSIS 24 HOUR | 120/576 | 00/12 | |
0520/1710 | RFS SURFACE PRESSURE PROGNOSIS 36 HOUR | 120/576 | 00/12 | |
0530/1720 | RFS SURFACE PRESSURE PROGNOSIS 48 HOUR | 120/576 | 00/12 | |
0600/1800 | RFS SURFACE PRESSURE PROGNOSIS 72 HOUR | 120/576 | 00/12 | |
0700/1900 | TYPHOON WARNINGS* (ENGLISH & CHINESE) | 120/576 | 06/18 | |
0720/1920 | GMS SATELLITE IMAGE | 120/576 | 06/18 | |
0905/2105 | FISHERY WEATHER FORECAST (IN CHINESE) | 120/576 | 06/18 | |
0930/2130 | SURFACE ANALYSIS WITH PLOTTED DATA | 120/576 | 06/18 | |
0950/2150 | GFS 500 hPa HEIGHT PROGNOSIS 120 HOUR | 120/576 | 1200 | |
1000/2200 | TYPHOON WARNINGS* (ENGLISH & CHINESE) | 120/576 | 09/21 | |

**MAP AREA:** 48N 060E, 48N 172W, EQ 099E, EQ 154E

*IN CASE OF TYPHOON WARNING

(SCHEDULE EFFECTIVE MAY 01, 2009)
(INFORMATION DATED MAY 01, 2009)
# SEOUL, REPUBLIC OF KOREA

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<th>CALL SIGN</th>
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<th>EMISSION</th>
<th>POWER</th>
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<tr>
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<td>3585 kHz</td>
<td>1200-0000 UTC</td>
<td>J3C</td>
<td>3 kW</td>
</tr>
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**NOTES:**
1. **IN CASE OF TYPHOON.**
2. **NOVEMBER TO APRIL.**
3. **MAY TO SEPTEMBER.**
4. **ALTERNATING BLACK AND WHITE SIGNALS WITH FREQUENCY OF 300 Hz WILL BE TRANSMITTED FOR 10 SECONDS PRIOR TO THE PHASING SIGNAL.**
5. **PHASING SIGNALS WILL BE TRANSMITTED FOR 30 SECONDS PRIOR TO TRANSMISSION OF EACH CHART.**
6. **STOP SIGNALS WILL BE TRANSMITTED FOR 15 SECONDS AFTER EACH TRANSMISSION.**
7. **“TSUNAMI WARNING” IS TRANSMITTED WITHOUT DELAY.**

**MAP AREA:**
- A – Lambert Conformal Conic 01.1N, 084.0E, 39.7N 41.9E, 06.5N 156.8E, 55.1N 199.4E
- B – Lambert Conformal Conic 16.3N, 100.7E, 49.5 N 82.6E, 17.8N 145.5E, 52.4N 160.4E
- C – Lambert Conformal Conic 20-50N, 115-150E

*INFORMATION DATED Jan 01, 2009* Many of these reports may be in Korean
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MAP AREA: A - 1:20,000,000  50N 045E, 50N 160E, 30S 045E, 30S 160E

* May refer to carrier frequency, for center frequency add 1.9 kHz

(INFORMATION DATED JAN 2009)
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<td>WX Chart</td>
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NX: Navigational Warning, N: New, R: Repeat
Some of these transmissions may be encrypted

(INFORMATION DATED March 1, 1999 provided by Kyodo News April 2001)
NORTHWOOD, UNITED KINGDOM (PERSIAN GULF)
– not currently active –

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ALL MAPS 40°30’N.15°30’E 40°30’N.80°E 03°N.15°30’E 3°N.80°E
WBPT WET BULB POTENTIAL TEMPERATURE
PPTN PRECIPITATION

(INFORMATION DATED OCT 24 2007) (Reported as being held in abeyance as of late 2010)
SOUTH AMERICA
### RIO DE JANEIRO, BRAZIL

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<tr>
<th>CALL SIGNS</th>
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<th>EMISSION</th>
<th>POWER</th>
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<th>CONTENTS OF TRANSMISSION</th>
<th>RPM/IOC</th>
<th>VALID TIME</th>
<th>MAP AREA</th>
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<td>120/576</td>
<td>120/576</td>
<td>A</td>
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<tr>
<td>0750/1635</td>
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<tr>
<td>0810/1655</td>
<td>WAVES SIG HEIGHT (m) AND DIR PROG 12/00Z +36 HR</td>
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<td>00/12</td>
<td>C</td>
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<tr>
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<td>WIND AT 10 m (KTS) PROG 12/00Z +36 HR</td>
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<td>D</td>
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<td>0850/1735</td>
<td>SEA SURFACE TEMPERATURE</td>
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MAP AREA:
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B: 1:58,500,000 20N 090W, 20N 020E, 70S 090W, 70S 020E
C: 1:58,500,000 20N 090W, 20N 020E, 70S 090W, 70S 020E
D: 1:32,700,000 15N 072W, 15N 018W, 50S 072W, 50S 018E


### VALPARAISO PLAYA ANCHA, CHILE (CBV)

### PUNTA ARENAS MAGALLANES, CHILE (CBM)

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<th>FREQUENCIES</th>
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<td>SATELLITE IMAGE</td>
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<td>WEEK</td>
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MAP AREA:
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B: 50S-90W, 50S-30W, 85S-90W, 85S-30W

NORTH AMERICA
## HALIFAX, NOVA SCOTIA, CANADA – not currently active

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<td>4-DAY PROG</td>
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### NOTES:

This schedule of chart and text transmission is subject to short notice change according to the requirements of the Canadian Forces.

The geographical area of coverage for the ice charts varies according to season. The typical areas are: Gulf of St. Lawrence, East Newfoundland waters, Labrador Strait, Hudson Strait, Davis Strait and Baffin Bay. The Canadian Ice Service prepares all ice charts.

MAP AREAS:

A. 56N 87W, 56N 24W, 34N 38W, 34N 73W
B. 76N 16W, 30N 20W, 23N 11W, 08N 69W
C. 52N 80W, 65N 15W, 30N 60W, 34N 17W
D. 60N 68W, 60N 33W, 43N 33W, 43N 68W
E. 50N 75W, 50N 48W, 34N 48W, 34N 75W
F. 52N 98W, 58N 24W, 30N 39W, 28N 78W
G. 52N 98W, 56N 24W, 30N 39W, 28N 78W
I. 54N 100W, 58N 22W, 30N 39W, 28N 78W

The Canadian Forces Fleet MetOc Broadcast service (radioteletype and radiofacsimile) was placed in abeyance effective September 2, 2010. The Canadian Forces Fleet MetOc Broadcast may be reinstated and ceased without warning as necessitated by military operational requirements. When notified, MCTS will issue a Notice to Shipping concerning reinstatements or cessations of this service.

### IQALUIT, CANADA

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<th>POWER</th>
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<tr>
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<td>0700/2200</td>
<td>Ice Analysis Hudson Bay south, Hudson Bay north, Hudson Strait, Foxe Basin, Labrador Coast, Davis Strait, Baffin Bay</td>
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Operating only from approximately mid-June until late-November

(INFORMATION DATED 2011)  

### RESOLUTE, CANADA

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<tr>
<th>CALL SIGN</th>
<th>FREQUENCIES</th>
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<td>Marine wind prognosis (Arctic) (experimental product)</td>
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Operating only from approximately mid-June until late-November

(INFORMATION DATED 2011)  
## SYDNEY - NOVA SCOTIA, CANADA

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<td>1741</td>
<td>ICE ANALYSIS ICEBERG LIMIT</td>
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<td>ICE ANALYSIS GULF OF ST. LAWRENCE</td>
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(INFORMATION DATED 2014)  

## INUVIK, CANADA

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<td>Amundsen Gulf, Queen Maud and McClure Strait.</td>
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<td>Ice Analysis Beaufort Sea/Alaskan Coast</td>
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Note: Also available on request

(INFORMATION DATED 2014)  
KODIAK, ALASKA, U.S.A.

**CALL SIGN** | **FREQUENCIES** | **TIMES** | **EMISSION** | **POWER**
---|---|---|---|---
NOJ | 2054 kHz | ALL BROADCAST TIMES | J3C | 4 kW
4298 kHz | ALL BROADCAST TIMES | J3C | 4 kW
8459 kHz | ALL BROADCAST TIMES | J3C | 4 kW
12412.5 kHz | ALL BROADCAST TIMES | J3C | 4 kW

CARRIER FREQUENCY IS 1.9 kHz BELOW THE ASSIGNED FREQUENCY

| TIME | CONTENTS OF TRANSMISSION | RPM/IOC | VALID TIME | MAP AREA |
---|---|---|---|---|
0340/1540 | TEST PATTERN | 120/576 | | |
0343/1543 | SEA ICE ANALYSIS/REBROADCAST 5-DAY SEA ICE FORECAST | 120/576 | LATEST | 6 |
0403/1603 | SURFACE ANALYSIS | 120/576 | 00/12 | 2 |
0427/1627 | REBROADCAST 24HR SURFACE F’CAST 2227/1027 | 120/576 | 12/00 | 3 |
0437/1637 | REBROADCAST 48HR SURFACE F’CAST 2237/1037 | 120/576 | 1200 | 1 |
0447/1647 | REBROADCAST 96HR SURFACE F’CAST 2348 | 120/576 | LATEST | |
0456/1656 | SEA STATE ANALYSIS/REBROADCAST | 120/576 | 00/00 | 1 |
0506/1706 | GOES IR SATELLITE IMAGE | 120/576 | 00/12 | 5 |
0517/1717 | 500 mb ANALYSIS | 120/576 | 00/12 | 1 |
0527/1727 | SYMBOLS AND CONTRACTIONS/SCHEDULE | 120/576 | | |
0548/1748 | REQUEST FOR COMMENTS/PRODUCT NOTICE | 120/576 | | |
0558/1758 | 24HR 500 mb FORECAST | 120/576 | 00/12 | 1 |
0950/2150 | TEST PATTERN | 120/576 | | |
0953/2153 | SURFACE ANALYSIS | 120/576 | 06/18 | 2 |
1017/2217 | 24HR WIND/WAVE FORECAST | 120/576 | 00/12 | 3 |
1027/2227 | 24HR SURFACE FORECAST | 120/576 | 00/12 | 3 |
1037/2237 | 48HR SURFACE FORECAST | 120/576 | 00/12 | 1 |
1047/2247 | 48HR WIND/WAVE FORECAST | 120/576 | 00/12 | 1 |
1057/2257 | 5-DAY SEA ICE FORECAST/REBROADCAST SEA ICE ANALYSIS | 120/576 | LATEST | 6 |
1117/2317 | GOES IR SATELLITE IMAGE | 120/576 | 06/18 | 5 |
1128/2328 | 48HR WAVE PERIOD, SWELL DIRECTION | 120/576 | 00/12 | 1 |
1138/2338 | 48HR 500 mb FORECAST | 120/576 | 00/12 | 1 |
1148/----- | SEA SURFACE TEMPERATURE ANALYSIS | 120/576 | LATEST | 4 |
1159/----- | COOK INLET SEA ICE FORECAST | 120/576 | LATEST | 7 |
-----/2348 | 96HR SURFACE FORECAST | 120/576 | 1200 | 1 |
-----/2358 | 96HR WIND/WAVE FORECAST | 120/576 | 1200 | 1 |
-----/0008 | 96HR WAVE PERIOD, SWELL DIRECTION | 120/576 | 1200 | 1 |
-----/0018 | 96HR 500 mb FORECAST | 120/576 | 1200 | 1 |

MAP AREAS:
1. 20N - 70N, 115W - 135E
2. 40N - 70N, 125W - 150E
3. 40N - 70N, 115W - 170E
4. 40N - 60N, 125W - 160E
5. 05N - 60N, 110W - 160W
6. ICE COVERED AK WATERS
7. COOK INLET

Send comments regarding the contents of these charts to:
Marine Services Program Manager
National Weather Service Alaska Region
222 West 7th Avenue
Anchorage, AK 99513-7575
907-271-5088 /FAX: 907-271-3711
nws.ar.arh.webauthors@noaa.gov

Send comments regarding the quality of this broadcast to:
U.S. Coast Guard Commander COMMSTA Kodiak
P.O. Box 190017
Kodiak, AK 99619-0017
907-487-5426 /FAX: 907-487-5517

Many of these charts also broadcast from Pt. Reyes, CA and Honolulu, HI

If you have access to the World Wide Web be certain to check out the following webpages. See these pages for further links.

http://www.nws.noaa.gov
NWS Homepage

http://www.nws.noaa.gov/om/marine/home.htm
NWS Marine Page

cell.weather.gov
Cellphone page

mobile.weather.gov
Mobile Page

(SCHEDULE EFFECTIVE MAR 16, 2011)
(INFORMATION DATED Apr 17, 2015)  http://weather.noaa.gov/pub/fax/hfak.txt

IV-4
PT. REYES, CALIFORNIA, U.S.A.

CALL SIGN  FREQUENCIES  TIMES (UTC)  EMISSION  POWER
NMC       4346 kHz  0140-1608  J3C      4 kW
          8682 kHz  ALL BROADCAST TIMES  J3C      4 kW
          12786 kHz  ALL BROADCAST TIMES  J3C      4 kW
          17151.2 kHz  ALL BROADCAST TIMES  J3C      4 kW
          22527 kHz  1840-2356  J3C      4 kW

TIME  CONTENTS OF TRANSMISSION  RPM/IOC  VALID  MAP
0140/1400  TEST PATTERN  120/576
0143/1403  NE PACIFIC GOES IR SATELLITE IMAGE  120/576  00/12  6
0154/1414  PACIFIC GOES IR SATELLITE IMAGE  120/576  00/12  5
0205/1425  TROPICAL SEA STATE ANALYSIS  120/576  00/12  4
0215/1435  TROPICAL 48HR SURFACE FORECAST  120/576  12/00  4
0225/-----  TROPICAL 48HR WIND/WAVE FORECAST  120/576  1200  4
0235/-----  TROPICAL 72HR WIND/WAVE FORECAST  120/576  1200  4
0245/1445  500 mb ANALYSIS  120/576  00/12  1
0255/1455  SEA STATE ANALYSIS, WIND/WAVE ANALYSIS  120/576  00/12  1/8
0305/1505  PRELIM SURFACE ANALYSIS (PART 1 NE PAC)  120/576  00/12  2
0318/1518  PRELIM SURFACE ANALYSIS (PART 2 NW PAC)  120/576  00/12  2
0331/1531  FINAL SURFACE ANALYSIS(PART 1 NE PAC)  120/576  00/12  2
0344/1544  FINAL SURFACE ANALYSIS(PART 2 NW PAC)  120/576  00/12  3
0357/1557  CYCLONE DANGER AREA* or HIGH WIND/WAVES  120/576  03/15  10
0408/1608  TROPICAL SURFACE ANALYSIS  120/576  00/12  4
0655/1840  TEST PATTERN  120/576
0657/------  2033Z REBROADCAST (96HR 500 mb)  120/576  1200  1
0707/------  2043Z REBROADCAST (96HR SURFACE)  120/576  1200  1
0717/------  2053Z REBROADCAST (96HR WIND/WAVE)  120/576  1200  1
0727/------  2103Z REBROADCAST (96HR WAVE PERIOD)  120/576  1200  1
------/1842  SST ANALYSIS  120/576  LATEST  9
------/1852  SST ANALYSIS  120/576  LATEST  6
0737/1902  TROPICAL GOES IR SATELLITE IMAGE  120/576  06/18  7
0748/1913  WIND/WAVE ANALYSIS  120/576  06/18  8
0758/1923  24HR 500 mb FORECAST  120/576  00/12  1
0808/1933  24HR SURFACE FORECAST  120/576  00/12  8
0818/1943  24HR WIND/WAVE FORECAST  120/576  00/12  8
0828/1953  48HR 500 mb FORECAST  120/576  00/12  1
0838/2003  48HR SURFACE FORECAST  120/576  00/12  1
0848/2013  48HR WIND/WAVE FORECAST  120/576  00/12  1
0858/2023  48HR WAVE PERIOD/SWELL DIRECTION  120/576  00/12  1
------/2033  96HR 500 mb FORECAST  120/576  1200  1
------/2043  96HR SURFACE FORECAST  120/576  1200  1
------/2053  96HR WIND/WAVE FORECAST  120/576  1200  1
------/2103  96HR WAVE PERIOD/SWELL DIRECTION  120/576  1200  1
0908/2113  PACIFIC GOES IR SATELLITE IMAGE  120/576  06/18  5
0919/2124  SURFACE ANALYSIS (PART 1 NE PACIFIC)  120/576  06/18  2
0932/2137  SURFACE ANALYSIS (PART 2 NW PACIFIC)  120/576  06/18  3
0945/2150  TROPICAL SURFACE ANALYSIS  120/576  06/18  4
0959/2204  TROPICAL 24HR WIND/WAVE FORECAST  120/576  00/12  4
1009/2214  CYCLONE DANGER AREA* or HIGH WIND/WAVES  120/576  09/21  10
1120/2320  TEST PATTERN  120/576
1124/2324  BROADCAST SCHEDULE (PART 1)  120/576
1135/2335  BROADCAST SCHEDULE (PART 2)  120/576
1146/------  REQUEST FOR COMMENTS  120/576
1157/------  PRODUCT NOTICE BULLETIN  120/576
1208/------  TROPICAL 48HR WIND/WAVE FORECAST  120/576  0000  4
1218/------  TROPICAL 72HR WIND/WAVE FORECAST  120/576  0000  4
1228/2346  TROPICAL 48HR WAVE PERIOD/SWELL DIR  120/576  00/12  4
------/2356  TROPICAL 72HR WAVE PERIOD/SWELL DIR  120/576  0000  4

* Tropical Cyclone Danger Area chart replaced by 48HR High Wind/Wave Warning chart Dec 01 - May 14 Valid times 00z,06z,12z and 18z
PT. REYES, CALIFORNIA, U.S.A.

MAP AREAS
1. 28N-52N, 45W-85W
2. 18N-65N, 10E-45W
3. 18N-65N, 40W-95W
4. 18N-65N, 10E-95W
5. 20N-55N, 55W-95W
6. EQ-60N, 40W-130W
7. 05N-60N, 0W-100W
8. 22N-51N, 40W-98W

NOTES: 1. CARRIER FREQUENCY IS 1.9 kHz BELOW THE ASSIGNED FREQUENCY

Please send comments regarding the quality of these charts to:

NATIONAL WEATHER SERVICE/NOAA
MARINE FORECAST BRANCH W/NP41
5830 UNIVERSITY RESEARCH CT
COLLEGE PARK, MD 20740
PHONE: (301) 683-1497
FAX: (301) 683-1545
EMAIL: ncep.list.opc_web@noaa.gov

COMMANDING OFFICER
USCG CAMSPAC
17000 SIR FRANCIS DRAKE BLVD.
P.O. Box 560
PHONE: (877) 662-4636 (415)669-2047
EMAIL: D11-PF-CAMSPACCWO@USCG.MIL

Many of these charts also broadcast from Kodiak, AK and Honolulu, HI

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http://www.nws.noaa.gov
NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm
NWS Marine Page
cell.weather.gov
Cellphone page
mobile.weather.gov
Mobile Page

(SCHEDULE EFFECTIVE NOV 03, 2008 1719Z)
(INFORMATION DATED APR 17, 2015)
<table>
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<td>------/1350</td>
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<td>GOES IR TROPICAL SATELLITE IMAGE</td>
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<td>SEA STATE ANALYSIS</td>
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<td>00/12</td>
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<td>0225/1425</td>
<td>REQUEST FOR COMMENTS/PRODUCT NOTICE</td>
<td>120/576</td>
<td>00/12</td>
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<td>TEST PATTERN</td>
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<td>0605/1805</td>
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<td>3</td>
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<td>120/576</td>
<td>03/15</td>
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* Tropical Cyclone Danger Area chart replaced by 48HR High Wind/Wave Warning chart
Dec 01-May 14. Valid times 00z, 06z, 12z and 18z. Map area 05N-40N, 35W-100W

MAP AREAS: 1. 5S - 50N, 55W - 125W  
2. 5S - 50N, 0W - 70W  
3. 0N - 31N, 35W - 100W  
4. 12S - 44N, 28W - 112W  
5. 7N - 31N, 35W - 98W (AREA COVERED BY TEXT FORECAST)  
6. 05N - 60N, 0W - 100W

NOTES: 1. CARRIER FREQUENCY IS 1.9 kHz BELOW THE ASSIGNED FREQUENCY

Please send comments regarding the quality of these charts to: NATIONAL HURRICANE CENTER
ATTN: CHIEF TAFB
11691 SOUTHWEST 17TH STREET
MIAMI, FL 33165-2149
PHONE: (305) 229-4454
FAX: (305) 553-1264
EMAIL: Hugh.Cobb@noaa.gov

Please send comments regarding the quality of this broadcast to: COMMANDING OFFICER
USCG CAMSLANT
4720 DOUGLAS A. MUNRO RD.
CHESAPEAKE, VA 23322-2598
PHONE: (800) 742-8519 (757)421-6240
EMAIL: CamslantCWO's@camslant.uscg.mil
NEW ORLEANS, LOUISIANA, U.S.A.

Tropical cyclone charts also broadcast from Boston, MA

If you have access to the World Wide Web be certain to check out the following webpages. See these pages for further links.

http://www.nws.noaa.gov  NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm  NWS Marine Page
cell.weather.gov  Cellphone page
mobile.weather.gov  Mobile Page

(Schedule Effective Apr 03, 2012)
(Information dated Feb 03, 2012) http://weather.noaa.gov/pub/fax/hfgulf.txt
# Boston, Massachusetts, U.S.A.

**Call Sign** | **Frequencies** | **Times** | **Emission** | **Power**
---|---|---|---|---
NMF | 4235 kHz | 0230Z-1039Z | J3C | 4 kW
 | 6340.5 kHz | ALL BROADCAST TIMES | J3C | 4 kW
 | 9110 kHz | ALL BROADCAST TIMES | J3C | 4 kW
 | 12750 kHz | 1400Z-2239Z | J3C | 4 kW

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* Tropical Cyclone Danger Area chart replaced by 48HR High Wind/Wave Warning chart Dec 01-May 14. Valid times 00Z, 06Z, 12Z and 18Z. Map area 05N-40N, 35W-100W

**Map Areas**

1. 28N-52N, 45W-85W
2. 18N-65N, 10E-45W
3. 18N-65N, 40W-95W
4. 18N-65N, 10E-95W
5. 20N-55N, 55W-95W
6. EQ-60N, 40W-130W
7. 05N-60N, 0W-100W
8. 22N-51N, 40W-98W
BOSTON, MASSACHUSETTS, U.S.A.

NOTES: 1. CARRIER FREQUENCY IS 1.9 kHz BELOW THE ASSIGNED FREQUENCY

Please send comments regarding
the quality of these charts to:

NATIONAL WEATHER SERVICE/NOAA
MARINE FORECAST BRANCH W/NP41
5830 UNIVERSITY RESEARCH CT
COLLEGE PARK, MD 20740
PHONE: (301) 683-1497
FAX: (301) 683-1545
EMAIL: ncep.list.opc_web@noaa.gov

Please send comments regarding
the quality of this broadcast to:

COMMANDING OFFICER
USCG CAMSLANT
4720 DOUGLAS A. MUNRO RD.
CHESAPEAKE, VA 23322-2598
PHONE: (800) 742-8519 (757)421-6240
EMAIL: camslantcwo@uscg.mil

Tropical cyclone charts also broadcast from New Orleans, LA

If you have access to the World Wide Web be certain to check out
the following webpages. See these pages for further links.

http://www.nws.noaa.gov NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm NWS Marine Page
cell.weather.gov Cellphone page
mobile.weather.gov Mobile Page

(EFFECTIVE DATE: Feb 01, 2012) 
(INFORMATION DATED: Apr 17, 2015) http://weather.noaa.gov/pub/fax/hfmarsh.txt
PACIFIC
OCEAN
BASIN
## CHARLEVILLE, AUSTRALIA

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## WILUNA, AUSTRALIA

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CHARLEVILLE & WILUNA, AUSTRALIA

The following charts are repeat broadcasts on 11030 kHz only via a directional aerial pointing from Charleville (VMC) towards Tasmania.

0345 Australian MSLP Anal (Manual) Valid 0000
0500 Australian MSLP 4-day Forecast, Days 1 and 2
0515 Australian MSLP 4-day Forecast, Days 3 and 4
0000 Indian Ocean MSLP Anal (Manual) Valid 1200

FOR FURTHER INFORMATION CONTACT:
SYSTEM HELP DESK
PH: (03) 9669 4054
EMAIL: webops@bom.gov.au

MAP AREAS:

A:    30N - 35S, 120E – 180E
AUST: LAMBERT 10S - 50S, 090E - 170E
B:    30N - 35S, 070E - 130E
C:    30N - 35S, 070E - 180E
E:    40N - 40S, 70E – 180E
IO POLAR 10S - 90S, 0 - 090E - 180
CASEY MERCATOR 50S - 70S, 080E - 160E
SH POLAR 20S - 90S, all longitudes
PSST MERCATOR 20N - 50S, 140E - 180 - 100W
SWP POLAR 20S - 90S, 150E - 180 - 90W
IOSSST MERCATOR 20N - 50S, 30E - 150E

(WELLINGTON, NEW ZEALAND)

CALL SIGN FREQUENCIES TIMES EMISSION POWER
ZKLF 3247.4 kHz 0945-1700 J3C 5 kW
5807 kHz ALL BROADCAST TIMES J3C 5 kW
9459 kHz ALL BROADCAST TIMES J3C 5 kW
13550.5 kHz ALL BROADCAST TIMES J3C 5 kW
16340.1 kHz 2145-0500 J3C 5 kW

Single transmitter used. Times below reflect broadcast times at 5807 kHz
Add 15 minutes for 9459 kHz, 30 minutes for 13550.5 kHz and 45 minutes for 3247.4 and 16340.1 kHz

TIME CONTENTS OF TRANSMISSION RPM/IOC VALID MAP
0000/1200 SOUTHWEST PACIFIC 30HR SURFACE PROG (MSL) 120/576 00/12 SWP
0100/1300 SOUTHWEST PACIFIC 48HR SURFACE PROG (MSL) 120/576 00/12 SWP
0200/1400 SOUTHWEST PACIFIC 72HR SURFACE PROG (MSL) 120/576 00/12 SWP
0300/1500 TASMAN-NEW ZEALAND MSL ANALYSIS 120/576 00/12 TNZ
0400/1600 SOUTHWEST PACIFIC MSL ANALYSIS 120/576 00/12 SWP
0900/2100 TASMAN-NEW ZEALAND MSL ANALYSIS 120/576 06/18 TNZ
1000/2200 SOUTHWEST PACIFIC MSL ANALYSIS 120/576 06/18 SWP
1100/2300 TRANSMISSION SCHEDULE

MAP AREAS: TNZ - TASMAN SEA - NEW ZEALAND
SWP - SOUTHWEST PACIFIC

### CALL SIGN FREQUENCIES TIMES (UTC) EMISSION POWER
KVM70 9982.5 kHz 0519-1556 J3C 4 kW
11090 kHz ALL BROADCAST TIMES J3C 4 kW
16135 kHz 1719-0356 J3C 4 kW

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**MAP AREAS:**
A. 30S - 50N, 110W - 130E  B. 30S - 30N, 110W - 130E  Honolulu Forecast Office
C. EQ - 50N, 110W - 130E  D. 30S - 50N, 110W - 160E  Honolulu Forecast Office
E. EQ - 40N, 80W - 170E  F. EQ - 55N, 110W - 160E  Honolulu Forecast Office
G. 05S - 55N, 110W - 155E  H. 40S - 05N, 130W - 165E  Honolulu Forecast Office
1. 20N - 70N, 150W - 135E  2. 20N - 70N, 115W - 157W  Ocean Prediction Center
3. 20N - 70N, 175W - 135E  4. 18N - 62N, EAST OF 157W  Ocean Prediction Center
5. 05N - 55N, EAST OF 180W  Y. 05N - 32N, EAST OF 130W  National Hurricane Center

**V-3**
HONOLULU, HAWAII, U.S.A.

STREAMLINES ARE LINES OF CONSTANT WIND DIRECTION.
WIND SPEEDS ARE GIVEN BY WIND BARBS INDEPENDENT OF STREAMLINES.

THE SIGNIFICANT CLOUD FEATURES CHARTS DEPICT CLOUD FEATURES BASED UPON IMAGES FROM THE VARIOUS GEOSTATIONARY AND POLAR ORBITING SATELLITES OVER THE PACIFIC. ABBREVIATIONS ON THESE CHARTS INCLUDE: AC - ALTOCUMULUS; AS - ALTOSTRATUS; BKN - BROKEN; CB - CUMULONIMBUS; CC - CIRROCUMULUS; CI - CIRRUS; CS - CIRROSTRATUS; CU - CUMULUS; FEW - FEW; ISOL - ISOLATED; LYRS - LAYERS; NS - NIMBOSTRATUS; OVC - OVERCAST; SC - STRATO-CUMULUS; SCT - SCATTERED; TCU - TOWERING CUMULUS; TSTM - THUNDERSTORM

RADIOFAX FREQUENCIES ARE ASSIGNED FREQUENCIES. TO CONVERT TO CARRIER FREQUENCIES, SUBTRACT 1.9 KHz FROM THE ASSIGNED FREQUENCIES.

YOU MAY ADDRESS COMMENTS ABOUT THIS BROADCAST TO:

Meteorologist In Charge
National Weather Service
2525 Correa Rd.
Honolulu, HI 96822
PHONE: (808) 973-5270/FAX: (808) 973-5281
E-Mail W-HFO.operations@noaa.gov

Many of these charts also broadcast from Pt. Reyes, CA and Kodiak, AK

If you have access to the World Wide Web be certain to check out the following webpages. See these pages for further links.

http://www.nws.noaa.gov NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm NWS Marine Page
cell.weather.gov Cellphone page
mobile.weather.gov Mobile Page

(SCHEDULE EFFECTIVE Nov 03, 2008) (INFORMATION DATED Apr 17, 2015) http://weather.noaa.gov/pub/fax/hfhi.txt
EUROPE
### ATHENS, GREECE

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<td>J3C</td>
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<td>SVJ4</td>
<td>8105 kHz</td>
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**TIME** | **CONTENTS OF TRANSMISSION** | **RPM/IOC** | **VALID TIME** | **MAP AREA**
---|---|---|---|---|
0845 | SURFACE ANALYSIS | 120/576 | 0600 | A |
0857 | SURFACE PROG (H+24) | 120/576 | 0600 | A |
0909 | SURFACE PROG (H+48) | 120/576 | 0600 | A |
0921 | WAVE HEIGHT PROG (H+30) | 120/576 | 1800 | B |
0933 | WAVE HEIGHT PROG (H+36) | 120/576 | 0000 | B |
0945 | WAVE HEIGHT PROG (H+42) | 120/576 | 0600 | B |
1009 | WAVE HEIGHT PROG (H+30) | 120/576 | 1800 | C |
1021 | WAVE HEIGHT PROG (H+36) | 120/576 | 0000 | C |
1033 | WAVE HEIGHT PROG (H+42) | 120/576 | 0600 | C |
1044 | WAVE HEIGHT PROG (H+48) | 120/576 | 1200 | C |

**MAP AREA:**
- A - SOUTH EUROPE, MEDITERRANEAN SEA, BLACK SEA
- B - MEDITERRANEAN
- C - AEGEAN

(Information dated 03/2007)

### MURMANSK, RUSSIA

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**TIME** | **CONTENTS OF TRANSMISSION** | **RPM/IOC** | **VALID TIME** | **MAP AREA**
---|---|---|---|---|
0700 | 36HR SURFACE PROG | 120/576 | 0000 | A |
0800 | SEA STATE ANALYSIS | 120/576 | 0600 | C |
1400 | SURFACE TEMP ANALYSIS/ICEBERG POSITIONS | 120/576 | 1200 | B |
1400 | ANAL OF ICEBERG POSITIONS FOR PAST+24HR | 120/576 | 1200 | C |
1430 | 24HR SEA STATE PROG | 120/576 | 1200 | C |
1850 | BROADCAST SCHEDULE | 90/576 | |
2000 | ICEBERG PROGNOSIS | 120/576 | |

**NOTES:**
1. Basic coverage area is for Barents Sea.

**MAP AREAS:**
- A -1:05,000,000 67N 032W, 53N 047E, 72N 074E, 51N 004W
- B -1:03,000,000 79N 010E, 74N 010E, 79N 040E, 74N 040E
- C -1:05,000,000 78N 010E, 66N 010E, 78N 070E, 66N 070E

(Information dated 11/97)

Update 03/2000 - Current operational frequencies report as being 6446 and 8444 kHz (nights) and 7907 kHz (days).
Update 03/2000 - Broadcast schedule may no longer be transmitted on-air.
Update 03/2002 - May only be transmitting on 6446 kHz.
**HAMBURG/PINNEBERG, GERMANY**

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<td></td>
</tr>
</tbody>
</table>

Notes: Abbreviations have the following meaning: GME Global model (31 layers, 60 km) H Contour lines (gpdam) MSL Mean sea level T Isotherms (° C) U Relative humidity (%)

(INFORMATION DATED (032010)
http://www.dwd.de/bvbw/generator/DWDWWW/Content/Schifffahrt/Sendeplan/broadcast_fax_032010,templateId=raw,property=publicationFile.pdf/broadcast_fax_032010.pdf)
<table>
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<th>CALL SIGNS</th>
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<th>TIMES</th>
<th>EMISSION</th>
<th>POWER</th>
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<td>10 kW</td>
</tr>
</tbody>
</table>

**Abbreviations:**

- GPH: Geopotential Height
- OAT: Outside Air Temperature
- PPTN: Precipitation
- SCEXAS TAFS: South Coast Exercise Areas Terminal Aerodrome Forecasts
- TD: Dewpoint Temperature
- WBPT: Wet Bulb Potential Temperature

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**INFORMATION DATED Nov 09, 2011**

VI-3
APPENDICES
The Internet is not part of the National Weather Service's operational data stream and should never be relied upon as a means to obtain the latest forecast and warning data. Become familiar with and use other means such as NOAA Weather Radio to obtain the latest forecasts and warnings. Please read our disclaimer [http://www.nws.noaa.gov/disclaimer.php](http://www.nws.noaa.gov/disclaimer.php).

Note: Any reference to a commercial product or service does not imply any endorsement by the National Weather Service as to function or suitability for your purpose or environment.

**Marine Text Forecasts and Products**

The majority of National Weather Service (NWS) forecasts and warnings may be found under the NWS webpage [http://www.nws.noaa.gov/](http://www.nws.noaa.gov/). Of specific interest to mariners are the NWS Marine Text Forecasts and Products [http://www.nws.noaa.gov/om/marine/home.htm#text](http://www.nws.noaa.gov/om/marine/home.htm#text). For convenience, High Seas, Offshore and Coastal marine forecasts are subdivided by sea area or zone and available via the Internet using our text interface or graphic interface. Individual NWS Forecast Offices and Centers producing marine forecasts provide links to their products as well as additional regionally focused information.

**Explanation of Codes Used in Various Marine Text Forecasts and Weather Broadcasts:**

- **Valid Time Event Code**
- **Universal Geographic Code (UGC)**
- **MAFOR**
- **Ships Synoptic Code (BBXX)**
- **MARS**
- **MAROB**
- **NOAA Weather Radio SAME Codes**
- **XML, CAP, RSS**
- **General Text Specification for Weather Products**
- **How to read the Hurricane Forecast/Advisory (TCM), More**
- Others (coming...check back)

**Marine Graphic Forecasts and Products**

Graphic marine forecasts are produced by NWS for broadcast via radiofax [http://www.nws.noaa.gov/om/marine/radiofax.htm](http://www.nws.noaa.gov/om/marine/radiofax.htm) and also made available via the Internet at Marine Radiofax Charts [http://weather.noaa.gov/fax/marine.shtml](http://weather.noaa.gov/fax/marine.shtml).

The National Weather Service also plans to make available marine forecast data in gridded and vector formats for display on electronic charts and use by other value-added applications. Graphics using these data are available via the Internet for most U.S. coastal areas. Also see **Computer Generated Model Guidance** below.

APPENDIX A-1
Satellite and RADAR Imagery


Ice Analysis, Forecasts and Iceberg Reports


Computer Generated Model Guidance


The Weather Charts [http://weather.noaa.gov/fax/graph.shtml](http://weather.noaa.gov/fax/graph.shtml) webpage contains charts, intended as guidance to forecasters, which can prove of value to mariners. Note: Several charts listed under "Weather Charts", which are no longer required to support NWS operations, may be terminated or made available at alternate sites. This should not include those which are broadcast by marine radiofacsimile.

Caution...these data have not been validated by marine forecasters and may be misleading. Mariners should use these data in conjunction with forecaster generated forecasts.

Marine Climatological Information

User-friendly climatological information for marine coastal areas may be found in Appendix B of the National Ocean Service's Coast Pilot's, volumes 1-9 [http://chartmaker.ncd.noaa.gov/nsd/coastpilot.htm](http://chartmaker.ncd.noaa.gov/nsd/coastpilot.htm). These appendices, which were prepared by the National Climatic Data Center [http://lwf.ncdc.noaa.gov/oa/ncdc.html](http://lwf.ncdc.noaa.gov/oa/ncdc.html), also contain other useful meteorological information such as conversion tables. Visit their webpage for further information.


APPENDIX A-2
Foreign Marine Forecasts


The WMO has also introduced an experimental GMDSS Webpage http://weather.gmdss.org/ which, as a first step, provides links to worldwide meteorological bulletins and warnings issued for the high seas via SafetyNet.

Also try the Naval Oceanography Portal http://www.usno.navy.mil/ for data which is outside the area of U.S. marine forecast responsibility.

WEBCAMS

The advent of the Internet has brought about a new type of observation system popular with beachgoers, surfers, and others - the WEBCAM which displays live images of current conditions. To find WEBCAMS for marine areas use your favorite Internet search engine to search for such key words as Beach Cams, Surf Cams, Coastal Cams, Ocean Cams, Port Cams and Cruise Cams. You may wish to refine your search by adding your geographic area to the search’s key words.

Buoy and Other Real-Time Observations

The latest coastal and offshore weather observations from NOAA fixed and drifting data buoys and Coastal-Marine Automated Network (C-MAN) stations may be found at the National Data Buoy Center http://www.ndbc.noaa.gov/ webpage. Real time meteorological and oceanographic observations for several sites are also available from the Physical Oceanographic Real-Time System (Ports) http://tidesandcurrents.noaa.gov/ports.html. PORTS is a program of the U.S. National Ocean Service http://oceanservice.noaa.gov/ that supports safe and cost-efficient navigation by providing ship masters and pilots with accurate real-time information required to avoid groundings and collisions. Several National Ocean Service tide gages are also equipped with ancillary meteorological sensors http://tidesonline.nos.noaa.gov/geographic.html. Regionally focused observation data may also be found on the webpages of local NWS Forecast Offices http://www.nws.noaa.gov/om/marine/marine_map.htm. Some marine observations may also be found on our NWS Marine Product Listing and Schedule http://www.nws.noaa.gov/om/marine/forecast.htm. Historical and real-time beach temperature data is available from the NODC Coastal Water Temperature Guide http://www.nodc.noaa.gov/dsdt/cwtg/.

NOAA’s NCEP Central Operations MADIS Database (https://madis.ncep.noaa.gov/) offers a Display of Surface Data (https://madis-data.ncep.noaa.gov/MadisSurface/) from several government, commercial and voluntarily operated mesonets as well as observations of those of the Voluntary Observing Ship (VOS) Program http://www.vos.noaa.gov/ and data buoys. A variety of marine observations may also be viewed on the National Ocean Service’s nowCOAST Web Portal (BETA) http://co-ops.nos.noaa.gov/nowcoast.html.

For mariners with a low speed Internet connection....... The latest buoy or C-MAN data may be retrieved via the Internet as in the following example where 44017 refers to buoy #44017 and SJSN4 refers to non-floating observation platform SJSN4.

http://www.ndbc.noaa.gov/mini_station_page.php?station=SJSN4

APPENDIX A-3
Tide Predictions, Observations and Storm Surge Forecasts
Near real-time Water Level Observations, and Predicted Tide Information for the calendar year [http://tidesandcurrents.noaa.gov/](http://tidesandcurrents.noaa.gov/), are available from the National Ocean Service [http://oceanservice.noaa.gov/](http://oceanservice.noaa.gov/). Read the NOS Tides FAQ [http://tidesandcurrents.noaa.gov/faq2.html](http://tidesandcurrents.noaa.gov/faq2.html) for further information on obtaining NOS tides and tidal current data. Caution is urged in using tide data made available at University and other webpages. This information may not be based on current government data and be of unknown quality.


The "Operational Forecast System" Model Guidance from the National Ocean Service [http://tidesandcurrents.noaa.gov/models.html](http://tidesandcurrents.noaa.gov/models.html) have been created to provide the maritime community with improved short-term predictions of water levels. Please be advised that these predictions are based on a hydrodynamic model and, as such, should be considered as computer-generated forecast guidance.

For Emergency Responders and Planners
NOAA’s Office of Response and Restoration, National Ocean Service [http://response.restoration.noaa.gov/index.php](http://response.restoration.noaa.gov/index.php), offers a series of job aids and software to predict weather and ocean affects on the trajectory of hazardous materials such as oil spills. The information may be helpful for further applications as well.

Historic Weather Forecasts, Satellite Images and Oceanographic Data
For historic weather forecasts, satellite images and oceanographic data, contact the National Climatic Data Center and National Oceanographic Data Center, found on our listing of Phone Numbers and Addresses [http://www.nws.noaa.gov/om/marine/phone.htm](http://www.nws.noaa.gov/om/marine/phone.htm).

Observations from Mariners

The National Weather Service has a number of other volunteer observation programs including the SKYWARN, MAREP, MAROB, MARS, APRSWXNET/Citizen Weather Observer Program (CWOP) and the Cooperative Observer Program (COOP) see [http://www.nws.noaa.gov/om/marine/voluntary.htm](http://www.nws.noaa.gov/om/marine/voluntary.htm) which are of benefit to the marine community.
Marine Webpages
The Internet contains a great number of webpages of interest to the mariner. Visit our Links http://www.nws.noaa.gov/om/marine/mlinks.htm page for a listing of recommended webpages pertaining to Marine Weather. The U.S. Coast Guard Maritime Telecommunications Information webpage http://www.navcen.uscg.gov/?pageName=maritimeTelecomms contains an excellent description of marine communication systems. There are also many other Internet sites of interest to the mariner. Use one the Internet search engines to search on topics such as "marine weather", "radiofax", "radiofacsimile", "weather buoys", "tides", etc. The NOAA Library http://www.lib.noaa.gov/ provides an excellent listing of links to marine related webpages within NOAA and elsewhere.

Marine Weather Publications On the Web
Many marine weather related government publications are available on the Web. Visit our publications webpage http://www.nws.noaa.gov/om/marine/pub.htm for several we recommend including our popular Marine Service Charts, the Weather Log Magazine, and our listing of Worldwide Marine Radiofacsimile Broadcast Schedules.

Internet Access for Mariners
Internet at sea can be problematic unless you stay within cellular telephone range of shore. "Marine WIFI" technology is rapidly becoming popular at marinas and in favorite harbor areas. Satellite services including Inmarsat, Iridium, Globalstar, Thuraya, Emsat, ACeS, tracNet/DirecPC, Boatracs, Orbcomm, and MTN are available, however, costs are generally greater. Several companies offer e-mail services designed to optimize satellite connectivity including MAILASAIL, OCENS, UUPLUS and XGate. Full Internet access is often available if you have a satellite terminal onboard, but presently unless you restrict your use to e-mail messages, costs can be high. A number of satellite services such as Inmarsat-C offer e-mail messaging services only and provide no access to the World Wide Web. Several transmission and data compression schemes are available and in development to make the Web more accessible to the mariner. There are also several public FTP-to-EMAIL and WWW-to-EMAIL servers available to allow Internet access for users who do not have direct or cost effective access to the World Wide Web but who are equipped with an e-mail system. CLICK HERE for information. Low cost, worldwide, access to the World Wide Web via satellite should be available to the mariner in the next five to ten years.

If you have an HF marine radio, E-mail service is available from companies such as Sailmail, CruiseEmail, Global Marine Networks, Kielradio, Globe Wireless and Shipcomm LLC (WLO/KLB). E-mail can be accomplished at no cost using amateur radio.

The domain of the Internet is rapidly expanding to now include wireless devices such as so-called "Internet-Ready" digital cellular phones and Personal Data Assistants (PDAs). These offer great potential for making marine forecasts available to coastal mariners, who have limited other options available. The majority of these other options are by voice where there is always the possibility of misunderstanding.

A webpage for the most popular marine text forecasts compatible with many cellphones and PDA’s may be found at cell.weather.gov.

A low bandwidth webpage containing marine and public forecasts intended for mobile devices may be found at: mobile.weather.gov (includes a capability to view the forecast for any zip/city and radar images).

Visit http://www.nhc.noaa.gov/aboutwap.shtml where you will find NHC’s wireless web page. There you can find the link to obtain NHC’s most popular hurricane products, offshore forecasts, and high seas forecasts.

APPENDIX A-5
National Weather Service Products Available Via E-MAIL (FTPMAIL)
National Weather Service marine text forecasts, radiofax charts and buoy observations are available via e-mail. Further, FTPMAIL may be used to acquire any file on the tgftp.nws.noaa.gov FTP server. The FTPMAIL server is intended to allow Internet access for mariners and other users who do not have direct access to the World Wide Web but who are equipped with an e-mail system. Turnaround is generally in under one hour, however, performance may vary widely and receipt cannot be guaranteed. To get started in using the NWS FTPMAIL service, follow these simple directions to obtain the FTPMAIL "help" file (11 KBbytes), or see http://weather.noaa.gov/pub/fax/ftpmail.txt.

Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject line: Put anything you like
Body: help

An FAQ webpage describing several public and commercial FTP-to-EMAIL and WWW-to-EMAIL servers may be found at: www.faqs.org/faqs/internet-services/access-via-email/

A webpage describing several different e-mail "robots" similar in concept to FTPMAIL, including some with advanced features such as allowing retrieval of NWS marine GRIB files, simple webpages, and allowing products to be retrieved on a scheduled, recurring basis may be found at: http://weather.noaa.gov/pub/fax/robots.txt

Internet Broadcasts
Marine weather data may also be obtained via the Internet using EMWIN http://www.nws.noaa.gov/om/marine/emwin.htm or WxWire (http://www.nws.noaa.gov/om/marine/wxwire.htm)

Watches, Warnings and Advisories Using RSS and CAP XML Based Formats

Change Notices
Directories of NWS Marine Forecasts

For Website developers or other "power" users, many NWS marine text forecast products are available at the following URL's, indexed by WMO header or zone.

http://weather.noaa.gov/pub/data/forecasts/marine/
ftp://tgftp.nws.noaa.gov/data/forecasts/marine/
http://weather.noaa.gov/pub/data/raw/
ftp://tgftp.nws.noaa.gov/data/raw/
http://www.ndbc.noaa.gov/data/Forecasts/
http://weather.noaa.gov/pub/data/
http://forecast.weather.gov/product_types.php
http://www.weather.gov/view/validProds.php

Many National Weather Service Weather Charts may be found in the following directories, indexed by WMO ID or other identifier.

http://weather.noaa.gov/pub/fax/
ftp://tgftp.nws.noaa.gov/fax/
### NATIONAL WEATHER SERVICE INTERNET SITES

<table>
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<td>NWS Homepage</td>
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<tr>
<td>NWS Marine Forecasts</td>
<td><a href="http://www.weather.gov/marine">http://www.weather.gov/marine</a></td>
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<td>NWS Marine Text Products</td>
<td><a href="http://www.nws.noaa.gov/om/marine/home.htm#text">http://www.nws.noaa.gov/om/marine/home.htm#text</a></td>
</tr>
<tr>
<td>NWS Marine Radiofax Products</td>
<td><a href="http://weather.noaa.gov/fax/marine.shtml">http://weather.noaa.gov/fax/marine.shtml</a></td>
</tr>
<tr>
<td>NWS Voluntary Observing Ship Program</td>
<td><a href="http://www.vos.noaa.gov">http://www.vos.noaa.gov</a></td>
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### U.S. NAVY AND OTHER WEATHER INTERNET SITES

See these sites for further links

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</thead>
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<td>International Ice patrol</td>
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</tr>
<tr>
<td>National Ice Center</td>
<td><a href="http://www.natice.noaa.gov">http://www.natice.noaa.gov</a></td>
</tr>
<tr>
<td>WMO Homepage</td>
<td><a href="http://www.wmo.ch">http://www.wmo.ch</a></td>
</tr>
<tr>
<td>JCOMM GMDSS</td>
<td><a href="http://weather.gmdss.org/">http://weather.gmdss.org/</a></td>
</tr>
<tr>
<td>USCG Maritime Telecommunications</td>
<td><a href="http://www.navcen.uscg.gov/?pageName=maritimeTelecomms">http://www.navcen.uscg.gov/?pageName=maritimeTelecomms</a></td>
</tr>
</tbody>
</table>
National Weather Service marine text forecasts, radiofax charts and buoy observations are available via e-mail. Further, FTPMAIL may be used to acquire any file on the tgftp.nws.noaa.gov FTP server. The FTPMAIL server is intended to allow Internet access for mariners and other users who do not have direct access to the World Wide Web but who are equipped with an e-mail system. Turnaround is generally in under one hour, however, performance may vary widely and receipt cannot be guaranteed.

This PDF file contains links to http pages and FTPMAIL commands. The links may not be compatible with all PDF readers and e-mail systems. The Internet is not part of the National Weather Service's operational data stream and should never be relied upon as a means to obtain the latest forecast and warning data. Become familiar with and use other means such as NOAA Weather Radio to obtain the latest forecasts and warnings. Please read our disclaimer [http://www.nws.noaa.gov/disclaimer.php](http://www.nws.noaa.gov/disclaimer.php).
FTPMAIL help file
*****************
    WARNING

*     This is a United States Government Computer. Use of this computer for purposes for which authorization has not been extended is a violation of federal law.
*     (Reference Public Law 99-474)
*     For technical assistance with FTPMAIL contact:

*     marine.weather@noaa.gov       301-427-9390
*
*****************

**** IMPORTANT NOTICES **** Read these notes carefully ****

Effective January 08, 2008, the address of the FTPMAIL service changed from ftpmail@weather.noaa.gov to ftpmail@ftpmail.nws.noaa.gov. If you restrict incoming e-mail as a means of preventing spam, you must configure your e-mail system to allow mail from ftpmail@ftpmail.nws.noaa.gov

CAUTION - READ THIS HELP FILE CAREFULLY - 99% OF ERRORS USING FTPMAIL ARE SIMPLE TYPO'S, INCORRECT CAPITALIZATION, FAILURE TO SEND IN plain TEXT FORMAT, LEADING OR TRAILING SPACES, OR FAILURE TO SET UP ANY SPAM FILTERS PROPERLY. FOLLOW THE EXAMPLES CLOSELY!

FTPMAIL e-mail requests must be sent in ASCII/Plain Text only. HTML formatting will likely result in no response from the FTPMAIL server.

This "help" file contains a detailed description of the FTPMAIL system and available products. To obtain another copy of the FTPMAIL "help" file:

- In plain text format -
  Send an e-mail to:       ftpmail@ftpmail.nws.noaa.gov
  Subject Line:            Put anything you like
  Body:                    help

These instructions are subject to revision....download frequently.

tgftp.nws.noaa.gov is the only valid FTP site for this service.

This National Weather Service (NWS) FTPMAIL server is intended to allow Internet access for users who do not have direct access to the World Wide Web but who are equipped with an e-mail system. The service is free and no signup is required. Using FTPMAIL, users can request files from NWS and have them automatically e-mailed back to them. Turnaround is generally in under one
hour, however, performance may vary widely and receipt cannot be
guaranteed.

NOTICE - Check time and date of forecasts. Downloaded data may not
represent the latest forecast. The Internet is not part of the
National Weather Service's operational data stream and should never
be relied upon as a means to obtain the latest forecast and warning
data. Become familiar with and use other means such as NOAA Weather
Radio to obtain the latest forecasts and warnings. Please read our
disclaimer at http://www.nws.noaa.gov/disclaimer.php

Although these instructions are tailored for marine users to gain
access to graphic(radiofax) and text products via e-mail, all
publicly available data on the tgftp.nws.noaa.gov Internet FTP
server is accessible using the FTPMAIL service.

To use FTPMAIL, the user sends a small script file via e-mail to
NWS requesting the desired file(s). A list of available product
directories, retrievable via FTPMAIL is shown below.

Users should be familiar with sending and receiving messages and
attachments with their particular e-mail system. Attachments are
received in UUencoded form. The majority of modern e-mail systems
handle the conversion automatically, other users will need to run
the UUdecode program for their particular system. If your e-mail
system does not UUEncode automatically, you will get back a bunch
of gibberish starting with something like "begin 600 PWAE98.TIF"
See your system administrator if you have any questions on this
topic. UUdecode freeware and shareware may also be found on the Web,
but the easier solution is to try a different e-mail system if that
option is open to you. The UUencoding process can add 0 to >100%
overhead depending on your system and the type of file.

Files which are greater than approximately 400KB in length may be
sent as multiple e-mails which must then be appended to another and
UUdecoded. This can be avoided using the "size" command following
the "open" statement, e.g. "size 1000000". The maximum allowable is 2MB.

Files sizes for NWS radiofax graphic files average 35KB but can be
much greater especially some satellite images which can approach 1MB.
Use the "dir" command to ascertain the size of files of interest
as a precaution. Users should be aware of the costs for operating
their particular e-mail system before attempting to use FTPMAIL,
especially when using satellite communication systems. For marine
users, using FTPMAIL via INMARSAT-C for obtaining current NWS
radiofax graphic files is cost prohibitive. Using the FTPMAIL
compression feature of FTPMAIL is not recommended as these files
are already in a compressed T4(G4) format enveloped in TIFF for
viewing. You will need a graphics program capable of displaying
files in this format in order to view them. Suggestions for TIFF
viewers may be found in file http://weather.noaa.gov/fax/rfaxtif.txt

NEW! Radiofax .TIF files now also available as (larger) .gif files

The following examples demonstrate the use of FTPMAIL. Indexes of
currently available marine products, the list FTPMAIL commands,
and suggestions for TIFF viewers may be obtained following these instructions.

To use FTPMAIL:
- In plain text format -
  - Send an e-mail via the Internet to: ftpmail@ftpmail.nws.noaa.gov
  - Put anything you like on the subject line
  - Enter a command script in the body of the message

NOTE: Correct capitalization for commands, directory and file names is critical

Example scripts are:

```
help

  Connect to default_site (tgftp.nws.noaa.gov) and send back
  this help file to e-mail address of requestor

open
cd fax
get PWAE98.TIF
quit

  Connect to default_site (tgftp.nws.noaa.gov) and send back
  the chart file PWAE98.TIF to e-mail address of requestor

open
cd data
cd forecasts
cd marine
cd coastal
cd an
get anz231.txt
quit

  Connect to default_site (tgftp.nws.noaa.gov) and send back coastal
  marine zone forecast ANZ231 to e-mail address of requestor

open
cd data
cd forecasts
cd zone
cd md
get mdz009.txt
quit

  Connect to default_site (tgftp.nws.noaa.gov) and send back public
  land zone forecast MDZ009 to e-mail address of requestor.
  (Contact your local forecast office to identify the public
  forecast zone number for your county, known as the UGC code)
  Zones lists by State may also be found at http://alerts.weather.gov/
```
open
dir
quit

Connect to default site (tgftp.nws.noaa.gov) and send back the contents of the top level directory to captain.kidd@noaa.gov

open
cd fax
get ftpcmd.txt (List of FTPMAIL commands)
get rfaxtif.txt (TIFF suggestions)
get rfaxatl.txt (Atlantic radiofax file directory)
get rfaxpac.txt (Pacific radiofax file directory)
get rfaxmex.txt (Gulf of Mexico and Trop Atl radiofax file dir)
get rfaxak.txt (Alaska radiofax and ice file directory)
get rfaxhi.txt (Hawaii radiofax file directory)
get otherfax.txt (Foreign charts file directory)
get marinel1.txt (Highseas,Offshore,Open Lakes,NAVTEX text file dir)
get marine2.txt (Hurricane text file directory)
get marine3.txt (Coastal forecasts text file directory)
get marine4.txt (Offshore forecasts by zone directory)
get marine5.txt (Atlantic coastal forecasts by zone directory)
get marine6.txt (Pacific coastal forecasts by zone directory)
get marine7.txt (Gulf of Mexico coastal forecasts by zone dir)
get marine8.txt (Great Lakes coastal forecasts by zone directory)
get marine9.txt (Alaska coastal forecasts by zone directory)
get marine10.txt (Hawaii&Trust coastal forecasts by zone directory)
get uk.txt (UK marine forecasts from Bracknell directory)
get canada.txt (Canadian marine text forecast directory)
get tsunami.txt (Tsunami products directory)
get buoydata.txt (Buoy and C-MAN station observations directory)
get robots.txt (Marine forecasts and info via e-mail systems)
quit

Connect to default site (tgftp.nws.noaa.gov) and send back the requested files to e-mail address of requestor.

Many, but not all National Weather Service forecast products may be obtained using FTPMAIL if the WMO/AWIPS Header is known as follows.

Example:
To obtain the Atlantic high seas Forecast, WMO header FZNT01 KWBC, AWIPS header HSFAT1

Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body:
  open
cd data
cd raw
cd fz
get fznt01.kWbc.hsf.at1.txt
quit

**************************SPECIAL NOTES**************************

CAUTION - READ THIS HELP FILE CAREFULLY - 99% OF ERRORS USING FTPMAIL ARE SIMPLE TYPO’S, INCORRECT CAPITALIZATION, FAILURE TO SEND IN PLAIN TEXT FORMAT, LEADING OR TRAILING SPACES, OR FAILURE TO SET UP ANY SPAM FILTERS PROPERLY. FOLLOW THE EXAMPLES CLOSELY!

FTPMAIL e-mail requests must be sent in ASCII/Plain Text only. HTML formatting will likely result in no response from the FTPMAIL server.

Make certain you have not enabled any auto-reply function in your email system.

If you see the following response and believe your script to be correct, the most likely problem is that you are sending your e-mail in HTML format rather than the required plain text format.

<FTP EMAIL> response
ftpmail has failed to queue your request with an error of:
    Must have an 'open [site [user [pass]]]'

tgftp.nws.noaa.gov is the only valid FTP site for this service.

Problems have been reported by users of Hotmail. (This may now be fixed)

If you restrict incoming e-mail as a means of preventing spam, you must program your e-mail system to allow messages from:
ftpmail@ftpmail.nws.noaa.gov

The majority of error messages have been disabled. You may or may not receive an error message back from FTPMAIL if your script is in error.

FTPMAIL problems are occasionally encountered when embedded control characters are received within the e-mail message received by the FTPMAIL server. These control characters may be introduced by the user's e-mail system and may be unavoidable.

Also be certain that each of your commands does not have any leading and/or trailing space(s) or you may see an error message with a number of statements saying "=20"

Problems may also be encountered in trying to go down several levels of directories simultaneously, e.g. "cd data/forecasts/marine/test". Use a series of commands "cd data", "cd forecasts", "cd marine" instead. In both these instances, the likely error will be "Directory not Found"

If the FTPMAIL server is too busy, you will receive an e-mail with a
subject line similar to: "ftpmail job queuing for retry queue/097095.69568"
Your request will be resubmitted automatically and your requested
file(s) should be received within several hours.

****************************************************************
An FAQ webpage describing several public and commercial FTP-to-EMAIL
and WWW-to-EMAIL servers may be found at:
www.faqs.org/faqs/internet-services/access-via-email/

If you have access to the Internet, be certain to check out
the following webpages. See these pages for further links.

http://www.nws.noaa.gov NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm NWS Marine Page
cell.weather.gov Cellphone page
mobile.weather.gov Mobile Page

Author: Marine, Tropical, and Tsunami Services Branch, W/AFS26
National Weather Service
Last Modified Apr 01, 2015
Document URL: http://weather.noaa.gov/pub/fax/ftpmail.txt
ftp://tgftp.nws.noaa.gov/fax/ftpmail.txt
***FTPMAIL commands for ftpmail@ftpmail.nws.noaa.gov FTPMAIL server***

**** IMPORTANT NOTICES ****

Effective January 08, 2008, the address of the FTPMAIL service changed from ftpmail@ftpmail.nws.noaa.gov to ftpmail@ftpmail.nws.noaa.gov. If you restrict incoming e-mail as a means of preventing spam, you must configure your e-mail system to allow mail from ftpmail@ftpmail.nws.noaa.gov.

Read the help file carefully - 99% of errors using FTPMAIL are simple typo's, incorrect capitalization, failure to send in plain text format, leading or trailing spaces, or failure to set up any spam filters properly.

These instructions are subject to revision....download frequently.

FTP's files and sends them back via electronic mail

NOTE: *.noaa.gov are the only valid FTP sites for this FTPMAIL server.

NOTE: Capitalization is critical for this server. Commands are un-capitalized, while some directory and file names are CAPITALIZED, while others are un-capitalized.

To use FTPMAIL:
- Send an E-mail via the Internet to ftpmail@ftpmail.nws.noaa.gov
- Put anything you like on the subject line
- Enter a command script in the body of the message

Example scripts are:

reply-to lmjm@server.big.ac.uk
open
dir
quit
  Connect to default_site (tgftp.nws.noaa.gov) and send back the contents of the top level directory to lmjm@server.big.ac.uk

open
cd fax
get PWAG01.TIF
quit
  Connect to default_site (tgftp.nws.noaa.gov) and send back the chart file PWAG01.TIF to e-mail address of requestor
Valid commands to the ftpmail gateway are:

```plaintext
reply-to email-address   Who to send the response to. This is optional
                       and defaults to the users email address

Followed by one of:
help                     Just send back help
delete jobid             Delete the given job
                       (jobid is received from server)

open [site [user [pass]]]  Site to ftp to. Default is:
                       default_site anonymous reply-to-address.

If there was an open then it can be followed by up to 100 of the
following commands:

cd pathname              Change directory.
cd ..                    Move up 1 directory.
cd /                     Move to the root directory.
ls [pathname]            Short listing of pathname.
                       Default pathname is current directory.
dir [pathname]           Long listing of pathname.
                       Default pathname is current directory.
get pathname             Get a file and email it back.
compress                 Compress files/dir-listings before emailing back
gzip                    Gzip files/dir-listings before emailing back
uuencode                 These are mutually exclusive options for
                       converting a binary file before emailing.
                       (Default is uuencode.)
force uuencode           Force all files or directory listings to
                       be encoded before sending back.
                       There is no default.
mime                     Send the message as a Mime Version 1.0 message.
                       Text will be sent as text/plain charset=US-ASCII
                       Non-text as application/octet-stream.
                       If the file is splitup then it will be sent
                       as a message/partial.
force mime               As mime but force text files to be sent as
                       application/octet-stream
```
no [compress|gzip|uuencode|btoa|mimex]
    Turn the option off.

size num[K|M]
    Set the max size a file can be before it is split up and emailed back in parts to the given number of Kilo or Mega bytes. This is limited to 275KB. Default is 275KB.

mode binary
    Change the mode selected for the get command. Defaults to binary.

mode ascii
    End of input - ignore any following lines.
**** IMPORTANT NOTICES ****

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If you restrict incoming e-mail as a means of preventing spam, you must configure your e-mail system to allow mail from ftpmail@ftpmail.nws.noaa.gov.

Read the help file carefully – 99% of errors using FTPMAIL are simple typo's, incorrect capitalization, failure to send in plain text format, leading or trailing spaces, or failure to set up any spam filters properly.

The "help" file contains a more detailed description of the FTPMAIL system and available products. To obtain a copy of the FTPMAIL "help" file.

-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body: help

These instructions are subject to revision....download frequently.

**********

U.S. Coast Guard Communications Station NMF - Boston, Massachusetts

Assigned frequencies 4235.0, 6340.5, 9110, 12750 kHz

Select a carrier frequency 1.9 kHz below those listed when using a single sideband radio in the USB mode to receive these broadcasts.

The latest version of marine weather charts for broadcast by the U.S. Coast Guard are available from the National Weather Service Telecommunication Gateway on this server. The listed charts are in the G4(T4) format and enveloped in TIFF for viewing. Satellite images are in JPEG format. These charts may be found in directory: ftp://tgftp.nws.noaa.gov/fax or http://weather.noaa.gov/pub/fax

For information of how these files and other text and graphic marine forecasts may be downloaded via e-mail (FTPMAIL) see:
http://weather.noaa.gov/pub/fax/ftpmail.txt

.TIF files now also available as .gif files

This file is intended to assist mariners using the FTPMAIL system which is used to obtain National Weather Service products via e-mail. The following is an example in the use of the FTPMAIL system. NOTE CAPITALIZATION!
Example using FTPMAIL:

-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject line: Put anything you like
Body:
open
cd fax
get PPAE10.TIF
get PWAE98.gif
quit

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/fax or
http://weather.noaa.gov/pub/fax

<table>
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UPPER AIR CHARTS

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500 mb Surface Chart Analysis (Most Current)  PPAA10.TIF
24HR 500 mb Chart VT00Z Forecast 10E-95W Northern Hemisphere  PPAE50.TIF
24HR 500 mb Chart VT12Z Forecast 10E-95W Northern Hemisphere  PPAE51.TIF
24HR 500 mb Chart Forecast (Most Current)  PPAE11.TIF
36HR 500 mb Chart VT00Z Forecast 10E-95W Northern Hemisphere  PPAG50.TIF
36HR 500 mb Chart VT12Z Forecast 10E-95W Northern Hemisphere  PPAG51.TIF
36HR 500 mb Chart Forecast (Most Current)  PPAG11.TIF
48HR 500 mb Chart VT00Z Forecast 10E-95W Northern Hemisphere  PPAI50.TIF
48HR 500 mb Chart VT12Z Forecast 10E-95W Northern Hemisphere  PPAI51.TIF
48HR 500 mb Chart Forecast (Most Current)  PPAI10.TIF
96HR 500 mb Chart VT12Z Forecast 10E-95W Northern Hemisphere  PPAM50.TIF

TROPICAL CYCLONE CHARTS

Tropical Cyclone Danger Area* VT03, 05N-60N, 00W-100W  PWEK89.TIF
Tropical Cyclone Danger Area* VT09, 05N-60N, 00W-100W  PWEK90.TIF
Tropical Cyclone Danger Area* VT15, 05N-60N, 00W-100W  PWEK91.TIF
Tropical Cyclone Danger Area* VT21, 05N-60N, 00W-100W  PWEK88.TIF
Tropical Cyclone Danger Area* (Most Current)  PWEK11.TIF

SATELLITE IMAGERY

00Z GOES IR Satellite Image, West Atlantic  evnt00.jpg
06Z GOES IR Satellite Image, Atlantic  evnt06.jpg
12Z GOES IR Satellite Image, West Atlantic  evnt12.jpg
18Z GOES IR Satellite Image, Atlantic  evnt18.jpg

ICE CHARTS

Ice Chart from U.S. Coast Guard International Ice Patrol  PIEA88.TIF
(During Ice Season only ~Feb-Sep, for further information see: http://www.uscg.mil/lantarea/iip/home.html)

SCHEDULE INFORMATION

Radiofax Schedule Part 1 (Boston, MA)  PLAZ01.TIF
Radiofax Schedule Part 2 (Boston, MA)  PLAZ02.TIF
Radiofax Schedule (DOS Text Version)  hfmarsh.txt
Request for Comments  PLAZ03.TIF
Product Notice Bulletin  PLAZ04.TIF
Test Pattern  PZZZ94.TXT
Internet File Names (This file)  rfaxatl.txt

* Tropical Cyclone Danger Area chart replaced by 48HR High Wind/Wave Warning chart Dec 01 - May 14 Valid times 00Z,06Z,12Z and 18Z, Map area 05N-40N, 35W-100W

Tropical cyclone charts also broadcast from New Orleans, LA

If you have access to the World Wide Web be certain to check out
the following webpages. See these pages for further links.

http://www.nws.noaa.gov NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm NWS Marine Page
cell.weather.gov Cellphone page
mobile.weather.gov Mobile Page

Author: Marine, Tropical, and Tsunami Services Branch, W/AFS26
National Weather Service
Feedback or questions: marine.weather@noaa.gov
Last Modified Dec 12, 2014
Document URL: http://weather.noaa.gov/pub/fax/rfaxatl.txt
ftp://tgftp.nws.noaa.gov/fax/rfaxatl.txt
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  Subject Line: Put anything you like
  Body: help

These instructions are subject to revision....download frequently.

**********

U.S. Coast Guard Communications Station NMC - Point Reyes, CA

Assigned frequencies 4346, 8682, 12786, 17151.2, 22527 kHz

Select a carrier frequency 1.9 kHz below those listed when using a single sideband radio in the USB mode to receive these broadcasts.

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.TIF files now also available as .gif files

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Subject line: Put anything you like
Body:
open
cd fax
get PWBE10.TIF
get PWBM99.gif
quit

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/fax or
http://weather.noaa.gov/pub/fax

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18Z Surface Analysis NW Pacific (Part 2) 20N-70W, 175W-135E PYBA08.TIF
Surface Analysis, Part 1 (Most Current) PYBA90.TIF
Surface Analysis, Part 2 (Most Current) PYBA91.TIF
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24HR Surface Forecast (Most Current) PPBE10.TIF
48HR Surface Forecast VT00Z 20N-70W, 115W-135E PBWI98.TIF
48HR Surface Forecast VT12Z 20N-70W, 115W-135E PBWI99.TIF
48HR Surface Forecast (Most Current) PBWI10.TIF
96HR Surface Forecast VT12Z 20N-70W, 115W-135E PBWM99.TIF

TROPICAL SURFACE CHARTS
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06Z East Pacific Surface Analysis 20S-30N, E of 145W PYFA97.TIF
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@24HR Tropical Surface ForecastVT12,20S-30N,80W-145W PYFE80.TIF
@24HR Tropical Surface Forecast(Most Current); PYFE10.TIF
48HR Tropical Surface ForecastVT00,20S-30N,80W-145W PYFI81.TIF
48HR Tropical Surface ForecastVT12,20S-30N,80W-145W PYFI82.TIF
48HR Tropical Surface Forecast(Most Current); PYFI10.TIF
@72HR Tropical Surface ForecastVT00,20S-30N,80W-145W PYFK83.TIF
@72HR Tropical Surface ForecastVT12,20S-30N,80W-145W PYFK84.TIF
@72HR Tropical Surface Forecast (Most Current); PYFK10.TIF

UPPER AIR CHARTS
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12Z 500 mb Analysis 20N-70N, 115W-135E PPBA51.TIF
500 mb Analysis (Most Current) PPBA10.TIF
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24HR 500 mb Forecast VT12Z 20N-70N, 115W-135E PPBE51.TIF
24HR 500 mb Forecast (Most Current) PPBE11.TIF
48HR 500 mb Forecast VT00Z 20N-70N, 115W-135E PPBI50.TIF
48HR 500 mb Forecast VT12Z 20N-70N, 115W-135E PPBI51.TIF
48HR 500 mb Forecast (Most Current) PPBI10.TIF
96HR 500 mb VT12Z 20N-70N, 115W-135E PPBM50.TIF
TROPICAL CYCLONE CHARTS

72 HR Tropical Cyclone Danger Area VT 03Z 0N-40N, 80W-180W  PWFK88.TIF
72 HR Tropical Cyclone Danger Area VT 09Z 0N-40N, 80W-180W  PWFK89.TIF
72 HR Tropical Cyclone Danger Area VT 15Z 0N-40N, 80W-180W  PWFK90.TIF
72 HR Tropical Cyclone Danger Area VT 21Z 0N-40N, 80W-180W  PWFK91.TIF
72 HR Tropical Cyclone Danger Area (Most Current)  PWFK11.TIF

Note: Tropical Cyclone Danger Area chart replaced by 48HR High Wind/Wave Warning chart Dec 01 - May 14 Valid times 00Z, 06Z, 12Z and 18Z

SEA SURFACE TEMPERATURES

Pacific SST Chart 40N-53N, E of 136W  PTBA88.TIF
Pacific SST Chart 23N-42N, E of 150W  PTBA89.TIF

SATELLITE IMAGERY
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@12Z GOES IR Satellite Image, Tropical East Pacific  evpn04.jpg
18Z GOES IR Satellite Image, Tropical East Pacific  evpn08.jpg
      GOES IR Satellite Image, Tropical East Pac (MOST CURRENT)  evpn10.jpg
@00Z GOES IR Satellite Image, East Pacific  evpn03.jpg
12Z GOES IR Satellite Image, East Pacific  evpn13.jpg
@18Z GOES IR Satellite Image, East Pacific  evpn14.jpg
21Z GOES VISIBLE Satellite Image, East Pacific  evpn00.jpg
      GOES Satellite Image, East Pacific (MOST CURRENT)  evpn98.jpg
00Z GOES IR Satellite Image, Pacific  evpn01.jpg
06Z GOES IR Satellite Image, Pacific  evpn06.jpg
12Z GOES IR Satellite Image, Pacific  evpn12.jpg
18Z GOES IR Satellite Image, Pacific  evpn18.jpg
      GOES IR Satellite Image, Pacific (MOST CURRENT)  evpn99.jpg

SCHEDULE INFORMATION

Radiofax Schedule Part 1 (Point Reyes, CA)  PLBZ01.TIF
Radiofax Schedule Part 2 (Point Reyes, CA)  PLBZ02.TIF
Radiofax Schedule (DOS Text Format)  hfreyes.txt
Request for Comments  PLBZ03.TIF
Product Notice Bulletin  PLBZ04.TIF
Test Pattern  PZZZ93.TIF
Internet File Names (This file)  rfaxpac.txt

@ Not transmitted via Pt. Reyes radiofax but listed here for convenience

Many of these charts also broadcast from Kodiak, AK and Honolulu, HI

If you have access to the World Wide Web be certain to check out the following webpages. See these pages for further links.

http://www.nws.noaa.gov  NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm  NWS Marine Page
cell.weather.gov  Cellphone page
NATIONAL WEATHER SERVICE RADIOFAX PRODUCTS
for the Gulf of Mexico, Caribbean, Tropical Atlantic and Tropical E Pacific

**** IMPORTANT NOTICES ****

Effective January 08, 2008, the address of the FTPMAIL service changed
from ftpmail@weather.noaa.gov to ftpmail@ftpmail.nws.noaa.gov.
If you restrict incoming e-mail as a means of preventing spam, you must
configure your e-mail system to allow mail from ftpmail@ftpmail.nws.noaa.gov

Read the help file carefully - 99% of errors using FTPMAIL are simple
typo's, incorrect capitalization, failure to send in plain text format,
leading or trailing spaces, or failure to set up any spam filters properly.

The "help" file contains a more detailed description of the
FTPMAIL system and available products. To obtain a copy of the
FTPMAIL "help" file.

-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body: help

These instructions are subject to revision....download frequently.

**********

U.S. Coast Guard Communications Station NMG - New Orleans, Louisiana

Assigned frequencies 4317.9, 8503.9 12789.9, 17146.4 kHz

Select a carrier frequency 1.9 kHz below those listed when using a
single sideband radio in the USB mode to receive these broadcasts.

The latest version of marine weather charts for broadcast by the U.S. Coast
Guard are available from the National Weather Service Telecommunication
Gateway on this server. The listed charts are in the G4(T4) format and
enveloped in TIFF for viewing. These charts may be found in directory:
ftp://tgftp.nws.noaa.gov/fax or http://weather.noaa.gov/pub/fax

For information of how these files and other text and graphic marine
forecasts may be downloaded via e-mail (FTPMAIL) see:
http://weather.noaa.gov/pub/fax/ftpmail.txt

.TIF files now also available as .gif files

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system. NOTE CAPITALIZATION!

Example using FTPMAIL:
In plain text format:
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject line: Put anything you like
Body:
open
cd fax
get PWE11.TIF
get PYEA11.gif
quit

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/fax or
http://weather.noaa.gov/pub/fax

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For further forecasts covering the Tropical East Pacific, see Pt. Reyes and Honolulu charts.

**TROPICAL CYCLONE CHARTS**

Tropical Cyclone Danger Area* VT03, 05N-60N, 00W-100W

Tropical Cyclone Danger Area* VT09, 05N-60N, 00W-100W

Tropical Cyclone Danger Area* VT15, 05N-60N, 00W-100W

Tropical Cyclone Danger Area* VT21, 05N-60N, 00W-100W

Tropical Cyclone Danger Area* (Most Current)

**HIGH SEAS FORECASTS**

04Z High Seas Forecast 7N-31N, 35W-98W, In English

10Z High Seas Forecast 7N-31N, 35W-98W, In English

16Z High Seas Forecast 7N-31N, 35W-98W, In English

22Z High Seas Forecast 7N-31N, 35W-98W, In English

High Seas Forecast (Most Current)

**SATELLITE IMAGERY**

0645Z GOES IR Satellite Image, 12S-44N, 28W-112W

1145Z GOES IR Satellite Image, 12S-44N, 28W-112W

1745Z GOES IR Satellite Image, 12S-44N, 28W-112W

2345Z GOES IR Satellite Image, 12S-44N, 28W-112W

GOES IR Satellite Image (Most Current)

**SCHEDULE INFORMATION**

Radiofax Schedule (New Orleans, LA)

Radiofax Schedule (DOS Text Format)

Request for Comments

Product Notice Bulletin

Test Chart

Internet File Names, (This file)

* Tropical Cyclone Danger Area chart replaced by 48HR High Wind/Wave Warning chart Dec 01 - May 14 Valid times 00Z,06Z,12Z and 18Z, Map area 05N-40N, 35W-100W

Tropical cyclone charts also broadcast from Boston, MA

If you have access to the World Wide Web be certain to check out the following webpages. See these pages for further links.

http://www.nws.noaa.gov NWS Homepage

http://www.nws.noaa.gov/om/marine/home.htm NWS Marine Page

cell.weather.gov Cellphone page

mobile.weather.gov Mobile Page

Author: Marine, Tropical, and Tsunami Services Branch, W/AFS26

National Weather Service

Feedback or questions: marine.weather@noaa.gov

Last Modified Dec 12, 2014

Document URL: http://weather.noaa.gov/pub/fax/rfaxmex.txt

ftp://tgftp.nws.noaa.gov/pub/fax/rfaxmex.txt
NATIONAL WEATHER SERVICE RADIFAX PRODUCTS
for the Northeast and Eastern Pacific

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-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body: help

These instructions are subject to revision....download frequently.

**********

U.S. Coast Guard Communications Station NOJ - Kodiak, Alaska

Assigned frequencies 2054, 4298, 8459, 12412.5 kHz

Select a carrier frequency 1.9 kHz below those listed when using a single sideband radio in the USB mode to receive these broadcasts.

The latest version of marine weather charts for broadcast by the U.S. Coast Guard are available from the National Weather Service Telecommunication Gateway on this server. The listed charts are in the G4(T4) format and enveloped in TIFF for viewing. Satellite images are in JPEG format. These charts may be found in directory: ftp://tgftp.nws.noaa.gov/fax or http://weather.noaa.gov/pub/fax

For information of how these files and other text and graphic marine forecasts may be downloaded via e-mail (FTPMAIL) see: http://weather.noaa.gov/pub/fax/ftpmail.txt

.TIF files now also available as .gif files

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Example using FTPMAIL:

-In plain text format-
Send an e-mail to:         ftpmail@ftpmail.nws.noaa.gov
Subject line:              Put anything you like
Body:
open
cd fax
get PJBI99.TIF
get PYBE10.gif
quit

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/fax or
http://weather.noaa.gov/pub/fax

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SEA SURFACE TEMPERATURES

Sea Surface Temperature Analysis  40N-60N,125W - 160E         PTCA88.TIF

SATELLITE IMAGERY

00Z GOES IR Satellite Image, Pacific                           evpn01.jpg
06Z GOES IR Satellite Image, Pacific                           evpn06.jpg
12Z GOES IR Satellite Image, Pacific                           evpn12.jpg
18Z GOES IR Satellite Image, Pacific                           evpn18.jpg
GOES IR Satellite Image, Pacific (MOST CURRENT)                evpn99.jpg

ICE CHARTS

Sea Ice Analysis                                              PTCA89.TIF
5 Day Sea Ice Forecast                                        PTC089.TIF
Cook Inlet Sea Ice Analysis                                   PTCA87.TIF

SCHEDULE INFORMATION and MISCELLANEOUS

Radiofax Schedule Kodiak, AK;                                  PLBZ05.TIF
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Request for Comments                                          xxxxxx.xxx
Product Notice Bulletin                                       xxxxxx.xxx
Test Pattern;                                                  xxxxxx.xxx
Radiofacsimile Symbols and Contractions                       PLBZO6.TIF
Internet File Names; (This file)                              rfaxak.txt

xxxxxx.xxx = Currently unavailable

Many of these charts also broadcast from Pt. Reyes, CA and Honolulu, HI

If you have access to the World Wide Web be certain to check out
the following webpages.  See these pages for further links.

http://www.nws.noaa.gov NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm  NWS Marine Page
cell.weather.gov        Cellphone page
mobile.weather.gov      Mobile Page

Author: Marine, Tropical, and Tsunami Services Branch, W/AFS26
National Weather Service
Feedback or questions: marine.weather@noaa.gov
Last modified Dec 12, 2014
Document URL: http://weather.noaa.gov/pub/fax/rfaxak.txt
              ftp://tgftp.nws.noaa.gov/fax/rfaxak.txt
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Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body: help

These instructions are subject to revision....download frequently.

******

NAVY Communications Station KVM-70 - Honolulu, Hawaii

Assigned frequencies 9982.5, 11090 and 16135 kHz

Select a carrier frequency 1.9 kHz below those listed when using a single sideband radio in the USB mode to receive these broadcasts.

The latest version of NWS marine weather charts for broadcast by the NAVY are available from the National Weather Service Telecommunication Gateway on this server. The listed charts are in the G4(T4) format and enveloped in TIFF for viewing. These charts may be found in directory: ftp://tgftp.nws.noaa.gov/fax or http://weather.noaa.gov/pub/fax

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xxxxxxx (Not yet available from these directories)
.TIF files now also available as .gif files

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Example using FTPMAIL:

-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject line: Put anything you like
Body:
open
cd fax
get PJFD89.TIF
get PBFA11.gif
quit

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/fax or
http://weather.noaa.gov/pub/fax

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<td>PWFE03.TIF</td>
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SURFACE CHARTS - CENTRAL PACIFIC

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18Z Pacific Surface Analysis EQ-50N, 110W-130E  PPBA90.TIF
Pacific Surface Analysis (Most Current)  PPBA11.TIF
00Z Pacific Streamline Analysis 30S-30N, 110W-130E  PWFA90.TIF
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12Z Pacific Streamline Analysis 30S-30N, 110W-130E  PWFA92.TIF
18Z Pacific Streamline Analysis 30S-30N, 110W-130E  PWFA93.TIF
Pacific Streamline Analysis (Most Current)  PWFA11.TIF
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@$ Tropical Surface Analysis (Most Current)  QYFA99.TIF
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15Z Significant Cloud Features 30S-50N, 110W-160E  PPBC99.TIF
Significant Cloud Features (Most Current)  PPBC11.TIF
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24HR Pacific Surface Forecast VT12Z 30S-50N 110W-130E  PYFE88.TIF
24HR Pacific Surface Forecast (Most Current)  PYFE11.TIF
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48HR Pacific Surface Forecast VT12Z 30S-50N 110W-130E  PYFI88.TIF
48HR Pacific Surface Forecast (Most Current)  PYF111.TIF
72HR Pacific Surface Forecast VT00Z 30S-50N 110W-130E  PYFK87.TIF
72HR Pacific Surface Forecast VT12Z 30S-50N 110W-130E  PYFK88.TIF
72HR Pacific Surface Forecast (Most Current)  PYFK111.TIF

$ These charts will no longer be available sometime after June 20, 2006

SURFACE CHARTS - SE PACIFIC
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06Z East Pacific Surface Analysis 20S-30N, E of 145W
12Z East Pacific Surface Analysis 20S-30N, E of 145W
18Z East Pacific Surface Analysis 20S-30N, E of 145W
East Pacific Surface Analysis Most Current
@00Z U.S./Tropical Surface Analysis 5S-50N,55W-125W
@06Z U.S./Tropical Surface Analysis 5S-50N,55W-125W
@12Z U.S./Tropical Surface Analysis 5S-50N,55W-125W
@18Z U.S./Tropical Surface Analysis 5S-50N,55W-125W
@ U.S./Tropical Surface Analysis (Most Current)
24HR Tropical Surface Forecast VT00,20S-30N,80W-145W
24HR Tropical Surface Forecast VT12,20S-30N,80W-145W
24HR Tropical Surface Forecast(Most Current);
48HR Tropical Surface Forecast VT00,20S-30N,80W-145W
48HR Tropical Surface Forecast VT12,20S-30N,80W-145W
48HR Tropical Surface Forecast(Most Current);
72HR Tropical Surface Forecast VT00,20S-30N,80W-145W
72HR Tropical Surface Forecast VT12,20S-30N,80W-145W
72HR Tropical Surface Forecast (Most Current);
SURFACE CHARTS - NORTH PACIFIC
00Z Surface Analysis NE Pacific (Part 1) 20N-70W, 115W-175W
00Z Surface Analysis NW Pacific (Part 2) 20N-70W, 175W-135E
06Z Surface Analysis NE Pacific (Part 1) 20N-70W, 115W-175W
06Z Surface Analysis NW Pacific (Part 2) 20N-70W, 175W-135E
12Z Surface Analysis NE Pacific (Part 1) 20N-70W, 115W-175W
12Z Surface Analysis NW Pacific (Part 2) 20N-70W, 175W-135E
18Z Surface Analysis NE Pacific (Part 1) 20N-70W, 115W-175W
18Z Surface Analysis NW Pacific (Part 2) 20N-70W, 175W-135E
Surface Analysis, Part 1 (Most Current)
Surface Analysis, Part 2 (Most Current)
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@24HR Surface Forecast VT12Z Forecast 18N-62N, E of 157W
@24HR Surface Forecast (Most Current)
48HR Surface Forecast VT00Z 20N-70W, 115W-135E
48HR Surface Forecast VT12Z 20N-70W, 115W-135E
48HR Surface Forecast (Most Current)
96HR Surface Forecast VT12Z 20N-70W, 115W-135E
TROPICAL CYCLONE CHARTS - PACIFIC
72 HR Tropical Cyclone Danger Area VT 03Z 0N-40N, 80W-170E
72 HR Tropical Cyclone Danger Area VT 09Z 0N-40N, 80W-170E
72 HR Tropical Cyclone Danger Area VT 15Z 0N-40N, 80W-170E
72 HR Tropical Cyclone Danger Area VT 21Z 0N-40N, 80W-170E
72 HR Tropical Cyclone Danger Area (Most Current)
SEA SURFACE TEMPERATURE CHARTS
Pacific SST Chart 55N-EQ, 110W-160E
SATELLITE IMAGERY (IR)

00Z Eastern Pacific Satellite Image 05S-55N, 110W-155E  evpz00.jpg
06Z Eastern Pacific Satellite Image 05S-55N, 110W-155E  evpz06.jpg
18Z Eastern Pacific Satellite Image 05S-55N, 110W-155E  evpz18.jpg
Eastern Pacific Satellite Image (Most Current) evpz21.jpg
00Z Southwest Pacific Satellite Image 40S-05N, 130W-165E evps00.jpg
06Z Southwest Pacific Satellite Image 40S-05N, 130W-165E evps06.jpg
12Z Southwest Pacific Satellite Image 40S-05N, 130W-165E evps12.jpg
18Z Southwest Pacific Satellite Image 40S-05N, 130W-165E evps18.jpg
Southwest Pacific Satellite Image (Most Current) evps21.jpg
00Z Tropical East Pacific Satellite Image 20S-40N, E of 145W evpn02.jpg
06Z Tropical East Pacific Satellite Image 20S-40N, E of 145W evpn07.jpg
@12Z Tropical East Pacific Satellite Image 20S-40N, E of 145W evpn04.jpg
18Z Tropical East Pacific Satellite Image 20S-40N, E of 145W evpn08.jpg
Tropical East Pacific Satellite Image (MOST CURRENT) evpn10.jpg
@00Z Pacific Satellite Image 05N-55N, E of 180W  evpn01.jpg
06Z Pacific Satellite Image 05N-55N, E of 180W  evpn06.jpg
@12Z Pacific Satellite Image 05N-55N, E of 180W  evpn12.jpg
18Z Pacific Satellite Image 05N-55N, E of 180W  evpn18.jpg
Pacific Satellite Image (MOST CURRENT) evpn99.jpg

SCHEDULE INFORMATION

Radiofax Schedule (Honolulu, HI) Part I  PLBZ07.TIF
Radiofax Schedule (Honolulu, HI) Part II  PLBZ09.TIF
Radiofax Schedule (DOS Text Version)  hfhi.txt
Test/Map Symbols/General Notice  PLBZ08.TIF
Internet File Names (This file)  rfaxhi.txt

@ Not transmitted via Honolulu radiofax but listed here for convenience

Many of these charts also broadcast from Pt. Reyes, CA and Kodiak, AK

If you have access to the World Wide Web be certain to check out the following webpages. See these pages for further links.

http://www.nws.noaa.gov  NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm  NWS Marine Page
cell.weather.gov  Cellphone page
mobile.weather.gov  Mobile Page

Author: Marine, Tropical, and Tsunami Services Branch, W/AFS26 National Weather Service
Feedback or questions: marine.weather@noaa.gov
Last Modified Dec 12, 2014
Document URL: http://weather.noaa.gov/pub/fax/rfaxhi.txt
ftp://tgftp.nws.noaa.gov/fax/rfaxhi.txt
***** IMPORTANT NOTICES *****

Effective January 08, 2008, the address of the FTPMAIL service changed from ftpmail@weather.noaa.gov to ftpmail@ftpmail.nws.noaa.gov.
If you restrict incoming e-mail as a means of preventing spam, you must configure your e-mail system to allow mail from ftpmail@ftpmail.nws.noaa.gov.

Read the help file carefully - 99% of errors using FTPMAIL are simple typo's, incorrect capitalization, failure to send in plain text format, leading or trailing spaces, or failure to set up any spam filters properly.

The "help" file contains a more detailed description of the FTPMAIL system and available products. To obtain a copy of the FTPMAIL "help" file.

-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body: help

These instructions are subject to revision....download frequently.

********

This file is intended to assist mariners using the FTPMAIL system which is used to obtain National Weather Service products via e-mail. The following is an example in the use of the FTPMAIL system. NOTE CAPITALIZATION!

-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body: open
cd data
cd forecasts
cd marine
cd high_seas
get north_pacific.txt
gt north_atlantic.txt
quit

HIGH SEAS FORECASTS

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/data/forecasts/marine/high_seas/
http://weather.noaa.gov/pub/data/forecasts/marine/high_seas/

<table>
<thead>
<tr>
<th>PRODUCT DESCRIPTION</th>
<th>FILE NAME</th>
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<tbody>
<tr>
<td>Northwest Atlantic Highseas (GMDSS Area IV)</td>
<td>north_atlantic.txt</td>
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<tr>
<td>Northeast Pacific Highseas (GMDSS Area XII)</td>
<td>north_pacific.txt</td>
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<tr>
<td>Peru Highseas (GMDSS Area XVI)</td>
<td>east_pacific_3.txt</td>
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</tr>
<tr>
<td>25S-0N, 160E-120W South Central Pacific</td>
<td>south_hawaii.txt</td>
</tr>
<tr>
<td>30-60N, east of 160 E (p/o NE Pacific)</td>
<td>east_pacific_1.txt</td>
</tr>
<tr>
<td>0-30N, E of 140W (p/o NE Pacific)</td>
<td>east_pacific_2.txt</td>
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<tr>
<td>0-30N, 160E-140W (p/o NE Pacific)</td>
<td>north_hawaii.txt</td>
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</table>

**FORECAST DISCUSSION**

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/data/raw/ag/  
http://weather.noaa.gov/pub/data/raw/ag/

Example:
-In plain text format-
Send an e-mail to:  ftpmail@ftpmail.nws.noaa.gov  
Subject Line:  Put anything you like  
Body:
open  
cd data  
cd raw  
cd ag  
get agnt40.kWnm.mim.atn.txt  
quit

**PRODUCT DESCRIPTION**

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<td>Northeast Pacific</td>
<td>agpn40.kWnm.mim.pac.txt</td>
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<tr>
<td>Gulf, Caribbean Sea &amp; SW N. Atlantic</td>
<td>agxx40.knhc.mim.ats.txt</td>
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Note...these Forecast Discussions are primarily intended for use by forecasters and make heavy use of abbreviations. A glossary is not available.

**OFFSHORE FORECASTS**

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/data/raw/fz/  
http://weather.noaa.gov/pub/data/raw/fz/

Example:
-In plain text format-
Send an e-mail to:  ftpmail@ftpmail.nws.noaa.gov  
Subject Line:  Put anything you like  
Body:
open  
cd data  
cd raw  
cd fz  
get fznt21.kWbc.off.nt1.txt  
quit

**PRODUCT DESCRIPTION**

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<td>Short version for radio broadcast</td>
<td>fznt33.kWbc.off.n31.txt</td>
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<tr>
<td>Mid-Atlantic</td>
<td>fznt22.kWbc.off.nt2.txt</td>
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<tr>
<td>Short version for radio broadcast</td>
<td>fznt34.kWbc.off.n32.txt</td>
</tr>
<tr>
<td>SW North Atlantic, Caribbean</td>
<td>fznt23.knhc.off.nt3.txt</td>
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NAVTEX FORECASTS

For offshore areas, NAVTEX forecasts can also be utilized which are similar to offshore forecasts and may contain supplementary information at times for coastal areas.

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/data/raw/fz/
http://weather.noaa.gov/pub/data/raw/fz/

Example:
-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body:
   open
cd data
cd raw
cd fz
cd fz
get fznt23.kWnm.off.n01.txt
quit

NAVTEX FORECASTS

These files may be found in directory:
ftp://tgftp.nws.noaa.gov/data/raw/fz/

Example:
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body:
   open
cd data
cd raw
cd fz
cd fz
get fznt23.kWnm.off.n01.txt
quit

PRODUCT DESCRIPTION   FILE NAME
NAVTEX Boston, MA       fznt23.kWnm.off.n01.txt
NAVTEX Chesapeake, VA    fznt24.kWnm.off.n02.txt
NAVTEX Charleston, SC    fznt25.kWnm.off.n03.txt
NAVTEX Miami, FL         fznt25.knhc.off.n04.txt
OPEN LAKE FORECASTS

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/data/raw/fz/
http://weather.noaa.gov/pub/data/raw/fz/

Example:
-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body:
  open
cd data
cd raw
cd fz
  get fzus61.kbuf.glf.sl.txt
  quit

PRODUCT DESCRIPTION               FILE NAME
St. Lawrence                       fzus61.kbuf.glf.sl.txt
Lake Ontario                       fzus61.kbuf.glf.lo.txt
Lake Erie                          fzus61.kcle.glf.le.txt
Lake St. Clair                     fzus63.kdtx.glf.sc.txt
Lake Huron                         fzus63.kdtx.glf.lh.txt
Lake Michigan                      fzus63.klot.glf.lm.txt
Lake Superior                      fzus63.kmqtx.glf.ls.txt

If you have access to the World Wide Web be certain to check out
the following webpages. See these pages for further links.

http://www.nws.noaa.gov                NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm    NWS Marine Page
cell.weather.gov       Cellphone page
mobile.weather.gov        Mobile Page

Author: Marine, Tropical, and Tsunami Services Branch, W/AFS26
National Weather Service
Feedback or questions: marine.weather@noaa.gov
Last Modified Dec 12, 2014
Document URL: http://weather.noaa.gov/pub/fax/marinel1.txt
             ftp://tgftp.nws.noaa.gov/fax/marinel1.txt
HURRICANE PRODUCTS

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Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body:
open
cd data
cd hurricane_products
cd atlantic
cd weather
get outlook.txt
cd /data
cd hurricane_products
cd atlantic
cd storm_2
get technical_advisory.txt
quit

ATLANTIC HURRICANE PRODUCTS

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/data/hurricane_products/atlantic
http://weather.noaa.gov/pub/data/hurricane_products/atlantic

<table>
<thead>
<tr>
<th>PRODUCT DESCRIPTION</th>
<th>FILE NAME</th>
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</table>

Atlantic Tropical Weather Outlook normally issued 0300Z, 0900Z, 1500Z and 2100Z during hurricane season, June 1 - November 30. Remaining products issued when active systems exist. May be issued at 3-hourly intervals and other unscheduled times as system approaches landfall.

EASTERN PACIFIC HURRICANE PRODUCTS

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/data/hurricane_products/eastern_pacific
http://weather.noaa.gov/pub/data/hurricane_products/eastern_pacific

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<td>Tropical WX Summary</td>
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<tr>
<td>Tropical WX Disturbance Stmt</td>
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<td>Tropical Cyclone Discussion (Storm #2)</td>
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<td>Tropical Cyclone Discussion (Storm #3)</td>
<td>/storm_3/discussion.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Discussion (Storm #4)</td>
<td>/storm_4/discussion.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Discussion (Storm #5)</td>
<td>/storm_5/discussion.txt</td>
</tr>
<tr>
<td>Public Advisory (Storm #1)</td>
<td>/storm_1/advisory.txt</td>
</tr>
<tr>
<td>Public Advisory (Storm #2)</td>
<td>/storm_2/advisory.txt</td>
</tr>
<tr>
<td>Public Advisory (Storm #3)</td>
<td>/storm_3/advisory.txt</td>
</tr>
<tr>
<td>Public Advisory (Storm #4)</td>
<td>/storm_4/advisory.txt</td>
</tr>
<tr>
<td>Public Advisory (Storm #5)</td>
<td>/storm_5/advisory.txt</td>
</tr>
<tr>
<td>Tropical Depression Forecast (Storm #1)</td>
<td>/storm_1/technical_advisory.txt</td>
</tr>
<tr>
<td>Tropical Depression Forecast (Storm #2)</td>
<td>/storm_2/technical_advisory.txt</td>
</tr>
<tr>
<td>Tropical Depression Forecast (Storm #3)</td>
<td>/storm_3/technical_advisory.txt</td>
</tr>
<tr>
<td>Tropical Depression Forecast (Storm #4)</td>
<td>/storm_4/technical_advisory.txt</td>
</tr>
<tr>
<td>Tropical Depression Forecast (Storm #5)</td>
<td>/storm_5/technical_advisory.txt</td>
</tr>
<tr>
<td>Hurricane Probabilities (Storm #1)</td>
<td>/storm_1/strike_probability.txt</td>
</tr>
<tr>
<td>Hurricane Probabilities (Storm #2)</td>
<td>/storm_2/strike_probability.txt</td>
</tr>
<tr>
<td>Hurricane Probabilities (Storm #3)</td>
<td>/storm_3/strike_probability.txt</td>
</tr>
<tr>
<td>Hurricane Probabilities (Storm #4)</td>
<td>/storm_4/strike_probability.txt</td>
</tr>
<tr>
<td>Hurricane Probabilities (Storm #5)</td>
<td>/storm_5/strike_probability.txt</td>
</tr>
<tr>
<td>RECON Plan</td>
<td>TBD</td>
</tr>
</tbody>
</table>

*Recommended products for mariners*
*Recommended products for mariners*

Eastern Pacific Tropical Weather Outlook normally issued 0300Z, 0900Z, 1500Z and 2100Z during hurricane season, May 15 - November 30. Remaining products issued when active systems exist. May be issued at 3-hourly intervals and other unscheduled times as system approaches landfall.

**CENTRAL PACIFIC HURRICANE PRODUCTS**

These files may be found in directory:
ftp://tgftp.nws.noaa.gov/data/hurricane_products/central_pacific

<table>
<thead>
<tr>
<th>PRODUCT DESCRIPTION</th>
<th>FILE NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tropical WX Outlook</td>
<td>/weather/outlook.txt</td>
</tr>
<tr>
<td>Tropical WX Discussion</td>
<td>(discontinued)</td>
</tr>
<tr>
<td>Tropical WX Summary</td>
<td>/weather/summary.txt</td>
</tr>
<tr>
<td>Tropical WX Disturbance Stmt</td>
<td>/weather/advisory.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Update (Storm #1)</td>
<td>/storm_1/update.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Update (Storm #2)</td>
<td>/storm_2/update.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Update (Storm #3)</td>
<td>/storm_3/update.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Update (Storm #4)</td>
<td>/storm_4/update.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Update (Storm #5)</td>
<td>/storm_5/update.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Discussion (Storm #1)</td>
<td>/storm_1/discussion.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Discussion (Storm #2)</td>
<td>/storm_2/discussion.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Discussion (Storm #3)</td>
<td>/storm_3/discussion.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Discussion (Storm #4)</td>
<td>/storm_4/discussion.txt</td>
</tr>
<tr>
<td>Tropical Cyclone Discussion (Storm #5)</td>
<td>/storm_5/discussion.txt</td>
</tr>
<tr>
<td>Public Advisory (Storm #1)</td>
<td>/storm_1/advisory.txt</td>
</tr>
<tr>
<td>Public Advisory (Storm #2)</td>
<td>/storm_2/advisory.txt</td>
</tr>
<tr>
<td>Public Advisory (Storm #3)</td>
<td>/storm_3/advisory.txt</td>
</tr>
<tr>
<td>Public Advisory (Storm #4)</td>
<td>/storm_4/advisory.txt</td>
</tr>
<tr>
<td>Public Advisory (Storm #5)</td>
<td>/storm_5/advisory.txt</td>
</tr>
<tr>
<td>Tropical Depression Forecast (Storm #1)</td>
<td>/storm_1/technical_advisory.txt</td>
</tr>
<tr>
<td>Tropical Depression Forecast (Storm #2)</td>
<td>/storm_2/technical_advisory.txt</td>
</tr>
<tr>
<td>Tropical Depression Forecast (Storm #3)</td>
<td>/storm_3/technical_advisory.txt</td>
</tr>
<tr>
<td>Tropical Depression Forecast (Storm #4)</td>
<td>/storm_4/technical_advisory.txt</td>
</tr>
<tr>
<td>Tropical Depression Forecast (Storm #5)</td>
<td>/storm_5/technical_advisory.txt</td>
</tr>
<tr>
<td>RECON Plan</td>
<td>TBD</td>
</tr>
</tbody>
</table>
*Recommended products for mariners*

Central Pacific Tropical Weather Outlook normally issued 0300Z, 0900Z, 1500Z and 2100Z during hurricane season, June 1 – November 30. Remaining products issued when active systems exist. May be issued at 3-hourly intervals and other unscheduled times as system approaches landfall.

WESTERN PACIFIC HURRICANE PRODUCTS (NOAA)

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/data/raw/wt
http://weather.noaa.gov/pub/data/raw/wt

Example:

-In plain text format-
Send an e-mail to:      ftpmail@ftpmail.nws.noaa.gov
Subject Line:           Put anything you like
Body:                   open
cd data
cd raw
cd wt
get  wtpq31.pgum.tcp.pql.txt
quit

PRODUCT DESCRIPTION                             FILE NAME

Public Advisory (Storm #1)          /wtpq31.pgum.tcp.pql.txt
Public Advisory (Storm #2)          /wtpq32.pgum.tcp.pql.txt
Public Advisory (Storm #3)          /wtpq33.pgum.tcp.pql.txt
Public Advisory (Storm #4)          /wtpq34.pgum.tcp.pql.txt
Public Advisory (Storm #5)          /wtpq35.pgum.tcp.pql.txt

These products may only contain information on cyclones with potential landfalls in U.S. areas. See NAVY products below for additional information.

WESTERN PACIFIC HURRICANE PRODUCTS (NAVY)

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/data/raw/wt
http://weather.noaa.gov/pub/data/raw/wt

Example:

-In plain text format-
Send an e-mail to:      ftpmail@ftpmail.nws.noaa.gov
Subject Line:           Put anything you like
Body:                   open
<table>
<thead>
<tr>
<th>PRODUCT DESCRIPTION</th>
<th>FILE NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>NW Pacific Tropical Cyclone Formation Alert Storm #1</td>
<td>/wtpn21.pgtw..txt</td>
</tr>
<tr>
<td>NW Pacific Tropical Cyclone Formation Alert Storm #2</td>
<td>/wtpn22.pgtw..txt</td>
</tr>
<tr>
<td>NW Pacific Tropical Cyclone Formation Alert Storm #3</td>
<td>/wtpn23.pgtw..txt</td>
</tr>
<tr>
<td>NW Pacific Tropical Cyclone Formation Alert Storm #4</td>
<td>/wtpn24.pgtw..txt</td>
</tr>
<tr>
<td>NW Pacific Tropical Cyclone Formation Alert Storm #5</td>
<td>/wtpn25.pgtw..txt</td>
</tr>
<tr>
<td>SW Pacific Tropical Cyclone Formation Alert Storm #1</td>
<td>/wtps21.pgtw..txt</td>
</tr>
<tr>
<td>SW Pacific Tropical Cyclone Formation Alert Storm #2</td>
<td>/wtps22.pgtw..txt</td>
</tr>
<tr>
<td>SW Pacific Tropical Cyclone Formation Alert Storm #3</td>
<td>/wtps23.pgtw..txt</td>
</tr>
<tr>
<td>SW Pacific Tropical Cyclone Formation Alert Storm #4</td>
<td>/wtps24.pgtw..txt</td>
</tr>
<tr>
<td>SW Pacific Tropical Cyclone Formation Alert Storm #5</td>
<td>/wtps25.pgtw..txt</td>
</tr>
<tr>
<td>NW Pacific Tropical Cyclone Warning Storm #1</td>
<td>/wtpn31.pgtw..txt</td>
</tr>
<tr>
<td>NW Pacific Tropical Cyclone Warning Storm #2</td>
<td>/wtpn32.pgtw..txt</td>
</tr>
<tr>
<td>NW Pacific Tropical Cyclone Warning Storm #3</td>
<td>/wtpn33.pgtw..txt</td>
</tr>
<tr>
<td>NW Pacific Tropical Cyclone Warning Storm #4</td>
<td>/wtpn34.pgtw..txt</td>
</tr>
<tr>
<td>NW Pacific Tropical Cyclone Warning Storm #5</td>
<td>/wtpn35.pgtw..txt</td>
</tr>
<tr>
<td>SW Pacific Tropical Cyclone Warning Storm #1</td>
<td>/wtps31.pgtw..txt</td>
</tr>
<tr>
<td>SW Pacific Tropical Cyclone Warning Storm #2</td>
<td>/wtps32.pgtw..txt</td>
</tr>
<tr>
<td>SW Pacific Tropical Cyclone Warning Storm #3</td>
<td>/wtps33.pgtw..txt</td>
</tr>
<tr>
<td>SW Pacific Tropical Cyclone Warning Storm #4</td>
<td>/wtps34.pgtw..txt</td>
</tr>
<tr>
<td>SW Pacific Tropical Cyclone Warning Storm #5</td>
<td>/wtps35.pgtw..txt</td>
</tr>
</tbody>
</table>

If you have access to the World Wide Web be certain to check out the following webpages. See these pages for further links.

- [http://www.nws.noaa.gov](http://www.nws.noaa.gov) NWS Homepage
- [http://www.nws.noaa.gov/om/marine/home.htm](http://www.nws.noaa.gov/om/marine/home.htm) NWS Marine Page
- [cell.weather.gov](http://cell.weather.gov) Cellphone page
- [mobile.weather.gov](http://mobile.weather.gov) Mobile Page

Author: Marine, Tropical, and Tsunami Services Branch, W/AFS26
National Weather Service
Feedback or questions: marine.weather@noaa.gov
Last Modified Dec 12, 2014
Document URL: [http://weather.noaa.gov/pub/fax/marine2.txt](http://weather.noaa.gov/pub/fax/marine2.txt)
**** IMPORTANT NOTICES ****

Effective January 08, 2008, the address of the FTPMAIL service changed from ftpmail@weather.noaa.gov to ftpmail@ftpmail.nws.noaa.gov.
If you restrict incoming e-mail as a means of preventing spam, you must configure your e-mail system to allow mail from ftpmail@ftpmail.nws.noaa.gov

Read the help file carefully - 99% of errors using FTPMAIL are simple typo's, incorrect capitalization, failure to send in plain text format, leading or trailing spaces, or failure to set up any spam filters properly.

The "help" file contains a more detailed description of the FTPMAIL system and available products. To obtain a copy of the FTPMAIL "help" file.

-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body: help

These instructions are subject to revision....download frequently.

**********

This file is intended to assist mariners using the FTPMAIL system which is used to obtain National Weather Service products via e-mail. The following is an example in the use of the FTPMAIL system. NOTE CAPITALIZATION!

-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject Line: Put anything you like
Body: open
cd data
cd raw
cd fz
get fzus56.kmtr.cwf.mtr.txt
quit

COASTAL and NEARSHORE MARINE FORECASTS

These files may be found in directories:
ftp://tgftp.nws.noaa.gov/data/raw/fz
http://weather.noaa.gov/pub/data/raw/fz

<table>
<thead>
<tr>
<th>PRODUCT DESCRIPTION</th>
<th>FILE NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caribou, ME</td>
<td>fzus51.kcar.cwf.car.txt</td>
</tr>
<tr>
<td>Gray, ME</td>
<td>fzus51.kgyx.cwf.gyx.txt</td>
</tr>
<tr>
<td>Taunton, MA</td>
<td>fzus51.kbox.cwf.box.txt</td>
</tr>
<tr>
<td>New York, NY</td>
<td>fzus51.kokx.cwf.okx.txt</td>
</tr>
</tbody>
</table>
Philadelphia, PA  fzus51.kphi.cwf.phi.txt
Washington, DC  fzus51.klwx.cwf.lwx.txt
Wakefield, VA  fzus51.kakq.cwf.akq.txt
Newport/Morehead City, NC  fzus52.kmhx.cwf.mhx.txt
Wilmington, NC  fzus52.kilm.cwf.ilm.txt
Charleston, SC  fzus52.kchs.cwf.chs.txt
Jacksonville, FL  fzus52.kjax.cwf.jax.txt
Melbourne, FL  fzus52.kmlb.cwf.mlb.txt
Miami, FL  fzus52.kmfl.cwf.mfl.txt
Key West, FL  fzus52.kkey.cwf.key.txt
San Juan, PR  fzca52.tjs1.cwf.sju.txt
San Juan, PR (Spanish)  fzca52.tjs1.cwf.spn.txt
Tampa, FL  fzus52.ktbw.cwf.tbw.txt
Tallahassee, FL  fzus52.ktae.cwf.tae.txt
Mobile, AL  fzus54.kmob.cwf.mob.txt
New Orleans, LA  fzus54.klix.cwf.lix.txt
Lake Charles, LA  fzus54.kich.cwf.ich.txt
Houston/Galveston, TX  fzus54.khgx.cwf.hgx.txt
Corpus Christi, TX  fzus54.krcp.cwf.crp.txt
Brownsville, TX  fzus54.kbro.cwf.bro.txt
Seattle, WA  fzus56.ksew.cwf.sew.txt
Portland, OR  fzus56.kpqr.cwf.pqr.txt
Medford, OR  fzus56.kmfr.cwf.mfr.txt
Eureka, CA  fzus56.keka.cwf.eka.txt
San Francisco, CA  fzus56.ktrn.cwf.trn.txt
Los Angeles, CA  fzus56.klox.cwf.lox.txt
San Diego, CA  fzus56.ksgx.cwf.sgx.txt
Hawaii  fhzw50.phfo.cwf.hfo.txt
Hawaii (Generalized)  fhzw50.phfo.cwf.hfo.txt
Marianas (Guam)  fzmy50.pgum.cwf.my.txt
East Micronesia  fzpg51.pgum.cwf.pgl.txt
West Micronesia  fzpg52.pgum.cwf.pqd.txt
Samoa  fzsz50.nstu.cwf.ppg.txt
Buffalo,NY  fzus51.kbuf.nsh.buf.txt
Cleveland,OH  fzus51.kcle.nsh.cle.txt
Detroit/Pontiac,MI  fzus53.kdtx.nsh.dtx.txt
Gaylord, MI  fzus53.kapx.nsh.apx.txt
Grand Rapids,MI  fzus53.kgrr.nsh.grr.txt
Northern Indiana, IN  fzus53.kiwx.nsh.ixw.txt
Chicago,IL  fzus53.klot.nsh.lot.txt
Milwaukee/Sullivan, WI  fzus53.kmkk.nsh.mkx.txt
Green Bay, WI  fzus53.kqrb.nsh.qrb.txt
Marquette, MI  fzus53.kmqt.nsh.mqt.txt
Duluth, MN  fzus53.kdlh.nsh.dlh.txt
AK, SE Inner Coastal Waters  fzak51.pajk.cwf.ajk.txt
AK, SE Outside Coastal Waters  fzak51.pajk.cwf.aeg.txt
AK, Yakutat Bay  fzak57.paya.cwf.yak.txt
AK, North Gulf Coast and Kodiak  fzak51.pafc.cwf.aer.txt
AK, Valdez Arm and Narrows  fzak58.pavw.cwf.vws.txt
AK, Chiniak and Marmot Bays  fzak58.padq.cwf.adq.txt
Southwest AK and the Aleutians  fzak52.pafc.cwf.alu.txt
Western AK  fzak52.pafg.cwf.wcz.txt
Arctic Coast  fzak51.pafg.cwf.nsb.txt
Sea Ice Advisory West & Arctic AK  fzak80.pafg.ice.afc.txt

If you have access to the World Wide Web be certain to check out the following webpages. See these pages for further links.
Marine Forecasts and Related Information Available via E-mail

National Weather Service (and other) marine forecasts are available via a variety of Government, University, Commercial and Public/Freeware systems intended to make information accessible to users such as mariners who may have an e-mail capability but do not have direct Internet access. The following is a listing of several known automated systems.

Note: Any reference to any product or service does not imply any endorsement by the National Weather Service as to function or suitability for your purpose or environment.

This document (http://weather.noaa.gov/pub/fax/robots.txt) may be retrieved via e-mail as follows:

-In plain text format-
Send an e-mail to:   ftpmail@ftpmail.nws.noaa.gov
Subject line:        Put anything you like
Body:                open
cd fax
get robots.txt
quit

>>>FTPMAIL<<<

**** IMPORTANT NOTICES ****

Effective January 08, 2008, the address of the FTPMAIL service changed from ftpmail@weather.noaa.gov to ftpmail@ftpmail.nws.noaa.gov.
If you restrict incoming e-mail as a means of preventing spam, you must configure your e-mail system to allow mail from ftpmail@ftpmail.nws.noaa.gov

Read the help file carefully - 99% of errors using FTPMAIL are simple typo’s, incorrect capitalization, failure to send in plain text format, leading or trailing spaces, or failure to set up any spam filters properly.

These instructions are subject to revision....download frequently.

National Weather Service marine text forecasts and radiofax charts are available via e-mail via an FTPMAIL server. Further, FTPMAIL may be used to acquire any file on the tgftp.nws.noaa.gov FTP server. The FTPMAIL server is intended to allow Internet access for mariners and other users who do not have direct access to the World Wide Web but who are equipped with an e-mail system. Turnaround is generally less than one hour, however, performance may vary widely and receipt cannot be guaranteed. To get started in using the NWS FTPMAIL service, follow these simple directions to obtain the FTPMAIL "help" file (11 KBytes), or see http://weather.noaa.gov/pub/fax/ftpmail.txt

-In plain text format-
Send an e-mail to:   ftpmail@ftpmail.nws.noaa.gov
Subject e-mail:        Put anything you like
Not all NWS forecast products are available via FTP and therefore accessible via FTPMAIL such as worldwide computer generated model forecasts which include areas beyond the area of U.S. forecasting responsibility such as the Indian Ocean and South Atlantic.

(1) To retrieve Wave Watch III and other forecasts via e-mail, use one of the www-to-email systems such as SAILDOCS or OTHERS described below. Be aware computer generated products from forecast models are not reviewed by forecasters and are therefore subject to error. E.G. per the Wave Watch III webpage:

URLs = http://polar.ncep.noaa.gov/waves/WEB_P/WWW.LATEST_RUN/PILOTS/xxxx.yyyy.zzzz.png
e.g. 24hr Wind Speed and Direction Forecast for NE Atlantic = http://polar.ncep.noaa.gov/waves/WEB_P/WWW.LATEST_RUN/PILOTS/NE_atlantic.u10.f024h.png

where www =
"multi_1" GFS Model
"multi_2" GFS Hurricane Model
"glw" Great Lakes NAM Model
"glwn" Great Lakes NDFD Model

where xxxx =
"atlantic" Atlantic Ocean
"pacific" Pacific Ocean
"indian_o" Indian Ocean
"NE_atlantic" NE Atlantic
"NW_atlantic" NW Atlantic
"US_eastcoast" US East Coast
"NE_pacific" NE Pacific
"alaska" Alaskan Waters
"aus_ind_phi" Australia-Indonesia
"gmex" Gulf of Mexico
"US_keywest" Key West
"US_puertorico" Puerto Rico
"US_wc_zm1" US West Coast Zoom 1
"US_wc_zm2" US West Coast Zoom 2
"hawaii" Hawaii
"grl" Great Lakes Region
"erie" Lake Erie
"huron" Lake Huron
"michigan" Lake Michigan
"ontario" Lake Ontario
"superior" Lake Superior

where "yyyy" =
"hs"       Significant Wave Height
"hs_ws"    Wind Sea Wave Height
"sw1"      Primary Swell Wave Height
"sw2"      Secondary Swell Wave Height
"u10"      Wind Speed and Direction
"tp"       Peak Wave Period
"tp_ws"    Wind Sea Period
"tp_ws1"   Primary Swell Period
"tp_ws2"   Secondary Swell Period

where "zzzz" = "h006h." or "h000" (multiples of 3 hours) for hindcasts
where "zzzz" = "f006h" to "f180" for forecasts

**** Important Note****
The Atlantic RTOFS model data immediately below is under an on-going operational upgrade. Use the Global RTOFS model as an alternative, (documented further below).

(2) And similarly, to retrieve sea surface temperature and surface current forecasts from NOAA's for Real-Time Ocean Forecast System-Atlantic
(http://polar.ncep.noaa.gov/ofsf/)

URLs =
http://polar.ncep.noaa.gov/ofsf/aofs_images/large/aofs_zzzz_yyyy_xxxx.png
e.g. http://polar.ncep.noaa.gov/ofsf/aofs_images/large/aofs_cur_f120_wnatlzoom.png

where xxxx =
"natl"  North Atlantic
"wnatl"  Western North Atlantic
"wnatlzoom"  Western North Atlantic zoom
"hurr"  Gulf of Mexico

where yyyy =
"nowcast", "f024", "f048", "f072", "f096" "f120" or 144

where "zzz" =
"sst"       Sea Surface Temperature (°C)
"cur"       Surface Current (magnitude m/sec)

**** Important Note****
The Atlantic RTOFS model data immediately above is under an on-going operational upgrade. Use the Global RTOFS model immediately below as an alternative, see
http://polar.ncep.noaa.gov/global/nc/

(3) To retrieve sea surface temperature and surface current forecasts from NOAA's for Global Real-Time Ocean Forecast System
(http://polar.ncep.noaa.gov/global/nc/)
URLs =
http://polar.ncep.noaa.gov/global/nc/images/large/rtofs_zzzz_yyyy_xxxx_000.png
e.g.
http://polar.ncep.noaa.gov/global/nc/images/large/rtofs_natl_curr_f120_000.png

where "zzzz" =
"global"      Global
"arctic"      Arctic
"eqpac"       Equatorial Pacific
"eqatl"       Equatorial Atlantic
"indian"      Indian Ocean
"med"         Mediterranean Sea
"natl"        North Atlantic
"npac"        North Pacific
"satl"        North Atlantic
"spac"        North Pacific
"southern"    Southern Ocean
"aguilhas"    Agulhas Current
"gulfstream"  Gulf Stream
"kuroshio"    Kuroshio Current
"northbrazil" Brazil Current
"somalia"     Somalia Current
"alaska"      Alaska
"gulfmex"     Gulf of Mexico
"australia"   Australia and New Zealand
"indonesia"   Indonesia and Philippines
"persiangulf" Somalia and Persian Gulf
"westconus"   West CONUS

where "yyyy" =
"temperature"           Sea Surface Temperature (°C)
"ssh"                   Ocean Surface Height
"mixed_layer_thickness" Mixed Layer Thickness
"salinity"              Salinity at Surface
"curr"                  Surface Current (magnitude m/sec)
"ice_thickness"         Ice Thickness
"ice_coverage"          Ice Coverage

where "xxxx" =
"f024", "f048", "f072", "f096", "f120" or "f144"

>>> National Hurricane Center Listserver
This service is no longer operational

>>> GovDelivery Weather Updates (Listserver)
This service is no longer operational
The University of Illinois at Urbana-Champaign operates an e-mail listserver of which two Lists, WX-ATLAN, and WX-TROPL are of special interest to mariners who do not have direct access to the World Wide Web but who are equipped with an e-mail system. These Lists provide an automated means to receive NWS hurricane (and some marine) forecast products via e-mail. However, performance may vary and receipt cannot be guaranteed. To get started in using the University of Illinois Listserver, follow these simple directions to obtain further information, or see: http://weather.noaa.gov/pub/fax/uiuclist.txt

See also: https://lists.illinois.edu/lists/info/wx-atlan
and https://lists.illinois.edu/lists/info/wx-tropl

- In plain text format -

Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject line: Put anything you like
Body: open
      cd fax
      get uiuclist.txt
      quit

>>> Hurricane Watch Net YahooGroup Listserver <<<
This service is no longer operational

>>> SAILDOCS <<<
SAILDOCS is an email-based document-retrieval system which currently offers two services: a document retrieval service which will return documents from the Internet or SAILDOCS own files, and a subscription service which will send Internet documents (for example weather reports) at scheduled intervals. SAILDOCS files include National Weather Service text forecasts and gridded binary (GRIB files) for wind, pressure, 500mb, and sea surface temperature. SAILDOCS is supported in part by Sailmail (www.sailmail.com) but is an independent service that can be used by anyone who agrees to the terms and conditions. To get started in using SAILDOCS, follow these simple directions to obtain further information, or see: http://www.saildocs.com/

Send an e-mail to: info@saildocs.com
Subject line: Put anything you like
Body: Put anything you like

>>> Global Marine Networks (GMN) <<<
Global Marine Networks (GMN) offers 7 day wind forecasts of the world as a free public service via its GRIB Mail Robot. See:
http://www.globalmarinenet.com/grib_downloads.php

>>> ExpressWeather - MailASail's Free Weather Service <<<
ExpressWeather is a free, simple system to offer popular weather forecasts and charts by email. It aims to provide a deliberately limited subset of all the weather available, and only to provide the most useful forecasts
in an easy to access format. For details send a blank email with a BLANK subject line to weather@mailasail.com
(Remember that some email programs insert "No subject". This has to be deleted)
or see
http://weather.mailasail.com/Franks-Weather/Text-Chart-Grib-Forecasts-From-Mailasail

Send an e-mail to: weather@mailasail.com
Subject line: Leave blank
Body: Leave blank

>>>NAVIMAIL<<<
M�t'o-France's NAVIMAIL system enables you to receive gridded binary (GRIB files) for wind, pressure, waves, sea surface temperature, as well as text bulletins and satellite images. There is a service charge for GRIB data, however, text bulletins and satellite images are available at no charge. To get started in using NAVIMAIL, follow these simple directions to obtain further information, or see:
http://www.meteo.fr/marine/navimail

-In plain text format-
Send an e-mail to: ftpmail@ftpmail.nws.noaa.gov
Subject line: Put anything you like
Body: open
cd fax
get navimail.txt
quit

>>>U.S. NOTICES TO MARINERS BY E-MAIL<<<
The National Geospatial-Intelligence Agency (NGA) provides a service whereby the U.S Notices to Mariners are e-mailed to the requesting address every weekend, with the following limitations:

* The notice transmitted is listed on the Maritime Safety Information (MSI) Website in the "Notice to Mariners" section as "Entire NtM". Graphics provided in this version are inadequate for navigation purposes. Navigation-quality chartlets are available for download on the MSI website as needed.
* Many networks and e-mail applications have restrictions on file sizes for e-mail attachments. In order to ensure all notices are received, the limit on file sizes for the receiving account should be changed to 2.5 Mb. Contact your system administrator or help desk for more assistance.
* In order to subscribe, the customer must be logged into the e-mail account to which they wish the notice sent. When the hyperlink below is selected, an e-mail window is generated with the "To" and "From" addresses filled out. The "Subject" and "Body" will be blank. Selecting "Send" subscribes the user to the e-mailed Notice to Mariners.
* Instructions to unsubscribe from the notice are included in each Notice to Mariners e-mail.

Privacy Act Advisory
Your e-mail address will be used for the purpose of electronically mailing the U.S. Notice to Mariners to you. Upon receipt of your subscription, your identification as the sender will be stripped from your e-mail and only the destination e-mail address you provide will be automatically added to the subscription list. Subscriptions will be processed automatically. If you unsubscribe, your e-mail address will be purged from the file and will not be retained. NGA may collect statistical data about the number of subscribers, number of subscription cancellations, and the number of delivery failures.

To subscribe to U.S. Notices to Mariners by E-mail:
Send an e-mail to: join-ntm@goldweb.nga.mil
Subject line: Leave blank
Body: Leave blank

>>>U.S. COAST GUARD LOCAL NOTICES TO MARINERS (LNM) LISTSERVER<<<
LNM's and other maritime related information are available via a one-way listserver at: http://www.navcen.uscg.gov/?pageName=LNMListRegistration

>>>NANUS & GPS STATUS MSGS BY EMAIL<<<
Users with an urgent need to be notified of changes to the GPS Constellation may subscribe to the Navigation Center NANU List Server (http://cgls.uscg.mil/mailman/listinfo/nanu) and/or the GPS Status Message List Server (http://cgls.uscg.mil/mailman/listinfo/gps). These services provide emails containing the NANU and/or GPS Status Messages, generally within 60 minutes of notification by the Air Force of a change to the GPS Constellation. This is a free service. PRIVACY INFORMATION: Disclosure of your email address is voluntary. It is solicited for the sole purpose of delivering the requested information to you and will not be released to any other party.

>>>U.S. Coast Guard Ice Patrol Chart and Text<<<
To receive U.S. Coast Guard Ice Patrol products via email, sign up for Iceberg Chart list server at https://radioaid.rdc.uscg.gov/mailman/listinfo/iceberg_chart and the Iceberg Text Bulletin list server at https://radioaid.rdc.uscg.gov/mailman/listinfo/iceberg_bulletin You will be emailed the products daily as soon as they are released. (The iceburg chart is also available via FTPMAIL above)

>>>OTHERS<<<
A non-NWS FAQ webpage describing several FTP-to-EMAIL and WWW-to-EMAIL servers may be found at:
http://www.faqs.org/faqs/internet-services/access-via-email/

If you have access to the World Wide Web be certain to check out the following webpages. See these pages for further links.

http://www.nws.noaa.gov NWS Homepage
http://www.nws.noaa.gov/om/marine/home.htm NWS Marine Page
cell.weather.gov Cellphone page
USEFUL MARINE WEATHER PUBLICATIONS

**Marine Service Charts (MSC) - Free**

Marine Service Charts (MSC) list frequencies, schedules and locations of stations disseminating NWS products. They also contain additional weather information of interest to the mariner. Charts are also available via the Internet as listed below.

Both sides of the charts are available, both in **JPG** and **PDF** formats. The front side of the charts shows the map and the back side shows the text that accompanies the chart. PDF format is helpful if you need to zoom in on a specific area of the chart.

**Note -** As a result of budgetary constraints, these Marine Service Charts are no longer being updated and may contain outdated information. In some cases the amount and/or types of outdated information has resulted in the unfortunate situation that we can no longer justify continuing to make that chart available. Updated information can most often be found on the Marine Forecasts or NOAA Weather Radio webpages or from your Local Weather Forecast Office.

* N/A = No longer available

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OTHER PUBLICATIONS OF VALUE TO THE MARINER

NOAA PUBLICATIONS
Mariner's Weather Log Magazine
Voluntary Observing Ship Program Brochure (1999) Free
NWS Observing Handbook NO.1 (05/10) Free
Marine Report User Guide
Worldwide Marine Radiofacsimile Broadcast Schedules (Feb 10, 2012)
NOAA Weather Radio Brochure (NOAA/PA 94070, 3/97) Free
NOAA Weather Radio Handout (NOAA/PA 94061, 3/97) Free
A Mariners Guide to Marine Weather Services - Great Lakes (NOAA/PA 98053) Free
A Mariners Guide to Marine Weather Services - Coastal, Offshore, and High Seas (NOAA/PA 98054) Free
Safe Boating Weather Tips (NOAA/PA 94058, 6/98) Free
National Ocean Service Coast Pilot, Volumes 1-9
Directory of Private Weather Services - Free
Hurricane brochures - Free
Tropical Cyclones - A Preparedness Guide - Free
Mariners Guide for Hurricane Awareness in the North Atlantic Basin (2.3 MB PDF)
TsunamiReady Brochure

NOAA SEA GRANT PUBLICATIONS
BOATING SAFETY - THUNDERSTORMS (1978) (NOAA/Sea Grant FLSGP-G-78-002)
Lightning & Boats (1995) (NOAA/Sea Grant NCU-G-95-004)
Lightning & Sailboats (2009)
Lightning & Sailboats (1992) (NOAA/Sea Grant FLSGP-G-92-001)
Beach safety: protect yourself from lightning (NOAA/Sea Grant DELU-G-90-003)
Inadequacies in the US code for lightning protection of boats (NOAA/Sea Grant FLSGP-R-89-018)
BOATING - LIGHTNING PROTECTION (NOAA/Sea Grant FLSGP-G-85-001)
LIGHTNING: GROUNDING YOUR BOAT (NOAA/Sea Grant MDU-G-80-001)
LIGHTNING CONE OF PROTECTION (NOAA/Sea Grant MICHU-G-80-001)
Rip currents! Break the grip of the rip (NOAA/Sea Grant DELU-G-05-005)
STARFISHER'S LAST VOYAGE (NOAA/Sea Grant ORESU-G-75-004)
Safe boating tips (fact sheet) (NOAA/Sea Grant PENN-G-03-002)

FCC PUBLICATIONS
Title 47 Part 80 - Code of Federal Regulations

APPENDIX D-2
NGA PUBLICATIONS

NGA Publication 117 "Radio Navigational Aids" (2014)¹³
American Practical Navigator (Bowdich) Publication 9 (2002)¹³
Pilot Chart Atlas, 5 areas ¹³
Sailing Directions, 42 volumes ¹³
U.S. Notices to Mariners ¹³
U.S. Notices to Mariners #1, Special Notice to Mariners Paragraphs

U.S. COAST GUARD PUBLICATIONS

USCG Local Notices to Mariners
USCG Light Lists
USCG Proceedings Magazine
U.S. Coast Guard Rescue Coordination Centers (RCCs)
{24 hour Regional Contacts for Emergencies }

NAVY PUBLICATIONS

U.S. NAVY Hurricane Havens/Heavy Weather Handbooks + more

Non-U.S. GOVERNMENT PUBLICATIONS

Canadian Coast Guard Radio Aids to Marine Navigation (RAMN) - $18.95 Cdn
The British Admiralty List of Radio Signals⁸
  Volume 1 Coast Radio Stations (2 parts)
  Volume 2 Radio Navigational Aids, Satellite Navigation Systems, Legal Time,
  Radio Time Signals & Electronic Fixing Systems
  Volume 3 Maritime Safety Information Services (2 Parts)
  Volume 4 Meteorological Observation Stations
  Volume 5 Global Maritime Distress and Safety Systems
  Volume 6 Pilot Services, Vessel Traffic Services & Port Operations (5 parts)

INTERNATIONAL PUBLICATIONS

TSUNAMI The Great Waves - Free ¹¹
The SafetyNET Users Handbook - Free
International SafetyNET Manual, 2011; IMO-908E¹²
NAVTEX Manual, 2012; IMO-951E¹²
GMDSS Handbook, 2013; IMO-IF970E¹²
SOLAS Consolidated Edition, 2014; IMO-IF110E¹²
SOLAS CHAPTER V SAFETY OF NAVIGATION

APPENDIX D-3
WMO Publication 9 - Weather Reporting

Volume A - Observing Stations
Volume C1 - Meteorological Bulletins
Volume C2 - Transmission Programmes (Includes broadcast information)
Volume D - Information for Shipping (Includes broadcast information)


Volume I Global Aspects
Volume II Regional Aspects

MISCELLANEOUS PUBLICATIONS
Arctic Marine Shipping Assessment 2009 Report

   Or from your local National Weather Service Forecast Office.

6. (Some publications available only to ships participating in U.S. VOS program)
   National Weather Service
   Voluntary Observing Ship Operations Manager
   Paula Rychtar
   NDBC Bldg #1100
   Stennis Space Center, MS 39529
   228-688-1457
   228-688-3153 (FAX)
   paula.rychtar@noaa.gov
   http://www.vos.noaa.gov

8. UK Hydrographic Office
   Admiralty Way, Tauton, Somerset
   TA1 2DNm United Kingdom
   +44(0) 1823 337900 x3333
   +44(0) 1823 323753 FAX
   info@hydro.gov.uk
   http://www.ukho.gov.uk
   http://www.admiralty.co.uk/SitePages/Distributors.aspx (Distributors)
10. National Weather Service
   Industrial Meteorology Staff
   1325 East-West Highway
   Silver Spring, MD 20910
   (301)-713-0258
   (301)-713-0610
   nws.im@noaa.gov
   http://www.nws.noaa.gov/im/

11. International Tsunami Information Center
    737 Bishop St. Suite 2200
    Honolulu, HI 96813-3213
    808-532-6422
    808-532-5576 (FAX)
    itic@itic.noaa.gov
    http://www.prh.noaa.gov/itic/

12. International Maritime Organization (IMO)
    4 Albert Embankment
    London SE1 7SR UK
    +44 207 7357611
    +44 207 5873210 FAX (general enquiries)
    +44 207 5873241 FAX (publication sales)
    Telex: 23588
    info@imo.org
    http://www.imo.org


15. American Meteorological Society
    Attn: WMO Publications Center
    45 Beacon Street
    Boston, MA 02108 USA
    1-617-227-2425 Fax: 1-617-742-8718
    wmopubs@ametsoc.org
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The NOAA Weather Radio network provides voice broadcasts of local and coastal marine forecasts on a continuous cycle. The forecasts are produced by local National Weather Service Forecast Offices. Coastal stations also broadcast predicted tides and real time observations from buoys and coastal meteorological stations operated by NOAA's National Data Buoy Center. Based on user demand, and where feasible, Offshore and Open Lake forecasts are broadcast as well.

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