WORLDWIDE MARINE RADIOFACSIMILE BROADCAST SCHEDULES

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

NATIONAL WEATHER SERVICE

August 16, 2004

INTRODUCTION

A printed copy of this publication is distributed free of charge to all ships that participate in the U.S. Voluntary Observing Ship (VOS) program. 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.

Appendix C contains information on a PC software program known as AMVER/SEAS which greatly assists in coding and transmitting meteorological observations and AMVER position reports.

This publication is made available via Internet at:

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

This 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.

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ABOUT THIS PUBLICATION

The schedules contained in this book 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. In several cases, unofficial reception reports have been received identifying the station as no longer being operational. 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.

We receive many inquires on the status of the U.S. Navy radiofax broadcasts. The U.S. Navy terminated all regularly scheduled radiofax transmissions with the exception of the Mediterranean beginning January 1, 1998 and services to the Mediterranean from Rota, Spain beginning March 1, 1999. The system is operated in a back-up mode for on-demand service by fleet units upon request. These transmissions are to meet the requirements of the U.S. military and have no direct connection to the National Weather Service's radiofax program. For questions on the U.S. Navy's radiofax program, contact the NAVLANTMETOCCEN Command Duty Officer at 1-757-444-4044, e-mail cdo@nlmoc.navy.mil

This document also includes information on how to obtain National Weather Service text and graphic marine forecasts via the World Wide Web and e-mail (FTPMAIL). Mariners are highly encouraged to explore these options. In this issue, we have added instructions on how buoy and C-MAN observations may be downloaded.

The accuracy of this publication depends on YOUR input.

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

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

AFRICA

NAIROBI, KENYA

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
5YE	9044.9 kHz	CONTINUOUS	F3C	6 KW
5YE	17447.5 kHz	CONTINUOUS	F3C	6 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0100/-------	SIGWX BELOW FL240 (1200) - FORM NO. 585A	120/576	0000	
0140/-------	TABULAR FORECAST- FORM NO. 2053	120/576	1200	
0540/-------	SIGWX FL100-250	120/576	1800	
0630/-------	DMC-CHART	120/576	0000	
0645/-------	DMC-CHART	120/576	0600	
0800/-------	SIGWX BELOW FL240 - FORM NO. 585A	120/576	1200	
0830/-------	TEST CHART	120/576		
1017/-------	SIG WX FL100-250	120/576	0000	
------/1600	SIG WX FL250 (SEGMENT)	120/576	0600	
1057/1638	SURFACE ANALYSIS	120/576	06/12	
1112/1653	850 HPA UPPER AIR ANALYSIS	120/576	06/12	
1127/-------	24-HOUR CHANGE OF PRESSURE	120/576	1200	
------/1708	INDIAN OCEAN ANALYSIS	120/576	1200	
------/1722	SIG WX FL100-250	120/576	0600	
1142/1802	H+24 SURFACE PROGNOSIS	120/576	06/12	
1210/1820	FL100 UPPER AIR ANALYSIS	120/576	00/12	
1229/1839	FL180 UPPER AIR ANALYSIS	120/576	00/12	
1248/1858	FL300 UPPER AIR ANALYSIS	120/576	00/12	
1307/1917	FL340 UPPER AIR ANALYSIS	120/576	00/12	
1326/1936	FL390 UPPER AIR ANALYSIS	120/576	00/12	
1345/------	INDIAN OCEAN ANALYSIS	120/576	0600	
1430/------	LOW LEVEL CONVERGENCE ZONE	120/576	1200	
1455/-------	24-HOUR CHANGE OF PRESSURE	120/576	1200	
------/2350	SIGWX FL100-250	120/576	1200	

NOTE: CHANGES TO THE SCHEDULE WILL BE TRANSMITTED AT 0830 IN PLACE OF THE NORMAL TEST CHART.

(INFORMATION DATED June 18, 2003)
Update 03/2002 - Reported as having a RPM/IOC of 180/576 vs. 120/576

CAPE NAVAL, SOUTH AFRICA

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
ZSJ	4014 kHz	16Z-06Z (when available)	F3C	10 KW
ZSJ	7508 kHz	CONTINUOUS	F3C	10 KW
ZSJ	13538 kHz	CONTINUOUS	F3C	10 KW
ZSJ	18238 kHz	06Z-16Z (when available)	F3C	10 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0430	SCHEDULE	120/576		
0500	SURFACE ANALYSIS(SHIPPING)	120/576	0000	ASXX
0630	UPPER AIR PROG	120/576	1200	FUXX
0730	SURFACE PROG	120/576	1200	FSXX
0800	ANTARTIC ICE LIMITS (OCT-MAR)	120/576		AIAA
0915	RTTY WEATHER BULLETINS FOR COASTAL WATERS AND HIGHSEAS	RTTY (170 Hz shift, 75 Baud)		
1030	SURFACE ANALYSIS(SHIPPING)	120/576	0600	ASXX
1100	SURFACE PROG	120/576	0000	FSXX
1530	SURFACE ANALYSIS(SHIPPING)	120/576	1200	ASXX
1700	RTTY WEATHER BULLETINS FOR COASTAL WATERS AND HIGHSEAS	RTTY (170 Hz shift, 75 baud)		
2230	SURFACE ANALYSIS(SHIPPING)	120/576	1800	ASXX

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 June 18, 2003) http://www.weathersa.co.za/forecasts/shippingschedule.html

DAKAR, SENEGAL

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
6VU 23	4790.5 kHz	CONTINUOUS	F3C	5 KW
6VU 73	13667.5 kHz	CONTINUOUS	F3C	10 KW
6VU 79	19750 kHz	CONTINUOUS	F3C	10 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
-------/1240	TEST CHART	120/576		
0100/1300	18HR SIGNIFICANT WEATHER PROG	60/576	12/00	B
0340/-------	TEST CHART	120/576		
0400/1600	SURFACE ANALYSIS	120/576	00/12	A
0445/1645	850MB ANALYSIS	120/576	00/12	A
0500/1700	700MB ANALYSIS	120/576	00/12	A
0515/1715	300MB ANALYSIS	120/576	00/12	A
0530/1730	250MB ANALYSIS	120/576	00/12	A
0545/1745	18HR SIGNIFICANT WEATHER PROG	60/576	18/06	C
0615/1815	200MB ANALYSIS	120/576	00/12	A
0630/1830	500MB ANALYSIS	120/576	00/12	A/B
0700/1900	18HR SIGNIFICANT WEATHER PROG	60/576	18/06	B
0740/1940	TEST CHART	120/576		
0820/2020	24HR UPPER AIR PROG (FL 180)	120/576	00/12	B
0840/2040	24HR UPPER AIR PROG (FL 300)	120/576	00/12	B
0900/2100	24HR UPPER AIR PROG (FL 340)	120/576	00/12	B
0920/2120	24HR UPPER AIR PROG (FL 390)	120/576	00/12	B
0940/2140	TEST CHART	120/576		
1000/2200	SURFACE ANALYSIS	120/576	06/18	A
1040/2240	TEST CHART	120/576		
1145/2345	18HR SIGNIFICANT WEATHER PROG	60/576	00/12	C

NOTE: THE TRANSMISSION IS CENTERED 1.900 Hz ABOVE THE ASSIGNED FREQUENCY.

MAP AREAS:	A -		35N	035W,	35N	022.5E,	EQ	035W,	EQ	022.5E
	B -	1:15,000,000	55N	030W,	55N	040.0E,	05S	030W,	05S	040.0E
	C -	1:25,000,000	40N	050W,	40N	033.0E,	20S	050W,	20S	033.0E

(INFORMATION DATED 09/1996)
Update 03/2000 - Operations of this station may have terminated in 1998

ASIA

BEIJING (PEKING), CHINA

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
BAF6	5526.9 kHz		F3C	6-8 KW
BAF36	8121.9 kHz		F3C	6-8 KW
BAF4	10116.9 kHz		F3C	10 KW
BAF8	14366.9 kHz		F3C	15 KW
BAF9	16025.9 kHz		F3C	?? KW
BAF33	18236.9 kHz		F3C	6-8 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0008	24HR/36HR/48HR PRECIPITATION PROG (1 JUN-30 SEP)	120/576	1200	E
0132	36HR/48HR SURFACE PROG	120/576	1200	A1
0154	TYPHOON WARNING (IN ENGLISH & CHINESE)(1)	120/576	0000	
0216	36HR MINIMUM TEMP PROG(1 OCT-30 APR)	120/576		E
	48HR MAXIMUM TEMP PROG(1 MAY-30 SEP)	120/576		E
0238	24HR/48HR PRECIPITATION PROG (1 MAY-30 SEP)	120/576	0000	E
	60HR MINIMUM TEMP PROG (1 OCT-30 APR)	120/576		E
0300	SATELLITE PICTURE ANALYSIS (1 MAY-30 SEP)	120/576		
0406	500MB PLOTTED DATA	120/576	0000	E
0428	48HR SURFACE PROG	120/576	1800	F
0450	SURFACE ANAL	120/576	0000	H
0724	SATELLITE PICTURE ANALYSIS (1 MAY-30 SEP)	120/576		
0746	TYPHOON WARNING (IN ENGLISH & CHINESE)(1)	120/576	0600	
0830	SURFACE PRESSURE ANALYSIS	120/576	0000	C
0852	24HR PRECIPITATION PROG	120/576		J
1126	TYPHOON TRACK PROG (2)	120/576	0000	D
1148	TEST CHART (4)	120/576		
1158	PROGRAM AMENDMENTS (4)	120/576		
1340	TYPHOON WARNING (IN ENGLISH AND CHINESE)(1)	120/576	1200	
1904	500MB PLOTTED DATA	120/576	1200	E
1926	SURFACE PRESSURE ANALYSIS	120/576	1200	G
1948	TYPHOON WARNING (IN ENGLISH AND CHINESE)(1)	120/576	1800	
2134	24 HR SURFACE ANALYSIS	120/576	1200	A1
2218	36HR/48HR 500 MB VORICITY ANALYSIS	120/576	1200	I
2240	TYPHOON TRACK PROG (2)	120/576	1200	D

NOTES: (1) IN CASE OF TYPHOON
(4) ON MONDAYS

MAP AREAS:

A1 -	1:30,000,000	NORTHERN HEMISPHERE								
C -	1:23,000,000	70S	040E,	70S	130W,	40N	040E,	40N		130W
D -	1:10,000,000	50N	105E,	50N	160E,	45N	105E,	45N		160E
E -	1:20,000,000	10N	085E,	10N	135E,	45N	066E,	45N		150E
F -	1:20,000,000	05S	033E,	04S	130E,	43N	041E,	20N		160E
G -	1:10,000,000	06N	085E,	03N	142E,	47N	063E,	41N		168E
H -	1:10,000,000	04S	070E,	02S	145E,	42N	023E,	48N		174E
I -	1:10,000,000	15N	075E,	15N	125E,	40N	040E,	45N		150E
J -	1:03,000,000	43N	108E,	43N	120E,	33N	108E	33N		120E

(INFORMATION DATED 11/1997)

BEIJING (PEKING), CHINA

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
3SD	8461.9 kHz		F3C	10 KW
3SD	12831.9 kHz		F3C	10 KW
3SD	16903.9 kHz		F3C	30 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0755/1130	Wave Analysis, 24h forecast 10 Day SST 10th, 20th and 31st (or last day of the month) 10 day ice forecast on 9th, 19th and 29th (or the last day of the month)	120/576		

(Date of Information Unknown)

SHANGHAI, CHINA

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
BDF	3241 kHz		F3C	
	5100 kHz		F3C	
	7420 kHz		F3C	
	11420 kHz		F3C	
	18940 kHz		F3C	

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0010	SURFACE PROG	120/576		B
0130	SURFACE ANALYSIS	120/576		A
1810	SURFACE PROG	120/576		B
2030	SURFACE ANALYSIS	120/576		A

MAP AREAS: A - 60N 90E, 50N 180, 10N 100E, 05N 160E
B - YELLOW SEA, EAST CHINA SEA

(INFORMATION DATED 12/1992)
Update 02/2000 - This schedule reported as being out of date

NEW DELHI, INDIA

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
ATP57	7404.9 kHz	1430-0230	B9W	10 KW
ATP65	14842.0 kHz	0230-1430	B9W	10 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0011/1211	SURFACE ANALYSIS	120/576	18/06	A
0030/1230	24HR 250MB WIND & TEMP PROG	120/576	12/00	A
0050/1248	24HR 500MB WIND & TEMP PROG	120/576	12/00	H
0110/1306	24HR 850MB WIND & TEMP PROG	120/576	12/00	H
0130/1324	12HR SIGNIFICANT WEATHER PROG (4 PANEL)	120/576	18/06	B
0150/------	96HR 500MB PROG (ECMWF)	120/576	1200	A
-------/1342	24HR 300MB WIND & TEMP PROG	120/576	0000	H
0210/1400	24HR 400MB WIND & TEMP PROG	120/576	12/00	H
0238/-------	24HR 300MB WIND & TEMP PROG	120/576	12/00	H
------/1430	24HR 200MB WIND & TEMP PROG	120/576	0000	H
0300/-------	24HR 700MB WIND & TEMP PROG	120/576	1200	H
------/1448	24HR 150MB WIND & TEMP PROG	120/576	0000	H
0320/-------	24HR 200MB WIND & TEMP PROG	120/576	1200	H
------/1506	24HR 700MB WIND & TEMP PROG	120/576	0000	H
0340/-------	24HR 150MB WIND & TEMP PROG	120/576	1200	H
0400/-------	48HR 200MB WIND PROG (ECMWF)	120/576	1200	A
0420/-------	72HR 500MB PROG (ECMWF)	120/576	1200	A
0440/-------	7 DAY MEAN SST ANALYSIS	120/576		F
0600/-------	INSAT IR SATELLITE IMAGE	120/576	0000	F
0622/1810	TEST CHART	120/576		
0634/1820	SURFACE ANALYSIS	120/576	00/12	A
-------/1840	500MB RELATIVE VORTICITY ANAL	120/576	1200	E
0654/1910	850MB ANALYSIS	120/576	00/12	A
0714/1928	700MB ANALYSIS	120/576	00/12	A
0734/1946	500MB ANALYSIS	120/576	00/12	A
0753/2004	300MB ANALYSIS	120/576	00/12	A
0812/2022	24HR SURFACE PROG	120/576	00/12	A
0834/2040	12HR SIGNIFICANT WEATHER PROG (4 PANEL)	120/576	00/12	B
0856/2100	200MB ANALYSIS	120/576	00/12	A
0916/2118	850-500MB THICKNESS ANALYSIS	120/576	00/12	A
0936/-------	24HR 500MB PROG	120/576	0000	A
-------/2136	500MB RELATIVE VORTICITY ANALYSIS	120/576	1200	D
1005/2205	SIGNIFICANT WEATHER RECEIVED FROM TOKYO	120/576		

NEW DELHI, INDIA

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
-------/2223	24HR 500MB PROG	120/576	1200	A
1025/2241	24HR 300MB PROG	120/576	00/12	A
1055/2259	24HR 250MB PROG	120/576	00/12	A
1115/2317	24HR 200MB PROG	120/576	00/12	A
1135/2335	24HR TROPOPAUSE/MAX WIND PROG	120/576	00/12	A
1153/2353	24HR 100MB PROG	120/576	00/12	A

MAP AREAS: A - 1:20,000,000 45N - 25S, 30E - 125E
B - 1:20,000,000 EQ - 40N, 30E - 125E
D - 1:20,000,000 5N - 42.5N, 40E - 120E
E - 1:20,000,000 EQ - 60N, 25E - 120E
F - 1:20,000,000 EQ - 25N, 55E - 100E
H - 1:20,000,000 15S - 67.5N, 000E - 180E

(INFORMATION DATED 1999/2003) Frequencies listed may be slightly incorrect

TOKYO, JAPAN

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
JMH	3622.5 kHz	CONTINUOUS	F3C	5 KW
JMH2	7305 kHz	CONTINUOUS	F3C	5 KW
JMH4	13597 kHz	CONTINUOUS	F3C	5 KW
JMH5	18220 kHz	CONTINUOUS	F3C	5 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0000/1200	RETRANSMISSION OF 2200/0840	120/576		
0020/------	96HR SURFACE PRESSURE/PRECIP PROGS	120/576	1200	C
0040/------	120HR SURFACE PRESSURE/PRECIP PROGS	120/576	1200	C
-------/1220	RETRANSMISSION OF 0210	120/576		
-------/1239	RETRANSMISSION OF 0300	120/576		
0103/1303	TEST CHART	120/576		
0110/1310	GOES 9 SATELLITE IMAGE	120/576	00/12	C'
0130/1330	RETRANSMISSION OF 1019/0730	120/576		
0150/1350	TROPICAL CYCLONE FORECAST(1)	120/576	00/12	C’
0210/------	SEA SURFACE CURRENT, WATER TEMPERATURE AT 100M DEPTH	120/576		
0229/-------	RADIO PREDICTION (9)	120/576		
0240/1440	SURFACE ANALYSIS	120/576	00/12	C’
0300/-------	SEA SURFACE WATER TEMPERATURE	120/576		
0320/1520	RETRANSMISSION OF 0240/1440	120/576		
0340/-------	BROADCAST SCHEDULE/MANUAL AMENDMENTS	120/576		
0400/1540	RETRANSMISSION OF 0150/1350	120/576		
------/1600	RETRANSMISSION OF 1019	120/576		
0421/-------	WAVE ANALYSIS (NORTH PACIFIC)	120/576	0000	C’’
0440/-------	WAVE ANALYSIS (JAPAN AREA)	120/576	0000	X
0459/1640	500HPA HEIGHT, TEMPERATURE	120/576	00/12	C
0518/1700	850HPA HEIGHT, TEMPERATURE, DEW POINT DEPRESSION	120/576	00/12	C
-------/1719	WAVE ANALYSIS (1)(JAPAN AREA)	120/576	1200	X
0548/-------	24HR SURFACE PRESSURE, WIND, FOG, ICING, SEA ICE PROG	120/576	0000	C’
0610/1750	THE SECOND RETRANSMISSION OF 0240/1440	120/576		
0630/-------	48/72 HR SURFACE PRESSURE, PRECIPITATION PROGNOSIS	120/576	00/00	

TOKYO, JAPAN

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0651/------	24HR WAVE PROG (NORTH PACIFIC)	120/576	0000	C''
0710/1910	METEOROLOGICAL SATELLITE PICTURE (GOES-9)	120/576	06/18	C'
0730/------	24HR WAVE HEIGHT PROG (JAPAN AREA)	120/576	0000	X
------/1930	24HR SURFACE PRESSURE, WIND, FOG, ICING, SEA ICE PROG	120/576	1200	C'
0750/1950	TROPICAL CYCLONE FORECAST (1)	120/576	06/18	C'
------/2010	24HR WAVE HEIGHT PROG (1) (JAPAN AREA)	120/576	1200	X
0820/------	48HR SURFACE PRESSURE, WIND, FOG, ICING, SEA ICE PROG	120/576	0000	C'
0840/2040	SURFACE ANALYSIS	120/576	06/18	C'
0900/------	RETRANSMISSION OF 0750	120/576		
-------/2100	48HR SURFACE PRESSURE, WIND, FOG, ICING, SEA ICE PROG	120/576	1200	C
0920/2120	RETRANSMISSION OF 0840/2040	120/576		
0940/------	RETRANSMISSION OF 0630/1950	120/576		
1000/------	RETRANSMISSION OF 0820	120/576		
------/2200	48/72HR SURFACE PRESSURE, PRECIPITATION PROGNOSIS	120/576	12/12	
------/2220	RETRANSMISSION OF 1719	120/576		
1019/-------	SEA ICE CONDITION ANAL(2)/48HR & 168 HR PROGS(3)	120/576	LATEST	L/L'
------/2220	72HR 500HPA HT/VORTICITY PROG	120/576	1200	C
1040/2240	RETRANSMISSION OF 0548/2040	120/576		
1100/2300	RETRANSMISSION OF 0421/1930	120/576		
1119/2320	RETRANSMISSION OF 0440/2010	120/576		
1140/2340	RETRANSMISSION OF 0651/2100	120/576		

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

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

(INFORMATION DATED 01 APR 2004) http://www.kishou.go.jp/177jmh/JMH_2004-04-01-(ENG).pdf

PEVEK, CHUKOTKA PENINSULA

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
	148 kHz	CONTINUOUS	F3C	

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0530-0730	ICE	90/576		
1130-1330	ICE	90/576		
1430-1630	ICE	90/576		

(INFORMATION DATED 11/97)

TAIPEI, REPUBLIC OF CHINA

CALL SIGN	FREQUENCIES		TIMES	EMISSION	POWER
BMF	4616	kHz		F3C	10 KW
	5250	kHz		F3C	10 KW
	8140	kHz		F3C	10 KW
	13900	kHz		F3C	10 KW
	18560	kHz		F3C	10 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0040/-------	BROADCAST SCHEDULE	120/576		
0110/1310	TYPHOON WARNINGS (ENGLISH & CHINESE)	120/576	00/12	
0130/1330	GMS SATELLITE IMAGE	120/576	00/12	
0250/1450	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	
0410/1610	TYPHOON WARNING (ENGLISH & CHINESE)	120/576	03/15	
0430/1630	850HPA ANALYSIS WITH PLOTTED DATA	120/576	00/12	
0440/1640	700HPA ANALYSIS WITH PLOTTED DATA	120/576	00/12	
0450/1650	500HPA ANALYSIS WITH PLOTTED DATA	120/576	00/12	
0500/1700	300HPA ANALYSIS WITH PLOTTED DATA	120/756	00/12	
0510/1710	RFS SURFACE PRESSURE ANALY/RFS 500HPA HEIGHT ANALYSIS	120/576	00/12	
0520/1720	RFS 12HR SURFACE PROG/RFS 12HR 500HPA PROG	120/576	00/12	
0530/1730	RFS 24HR SURFACE PROG/RFS 24HR 500HPA PROG	120/576	00/12	
0540/1740	RFS 36HR SURFACE PROG/RFS 24HR 500HPA PROG	120/576	12/00	
0550/1750	RFS 48HR SURFACE PROG/RFS 48HR 500HPA PROG	120/576	00/12	
0600/1800	RFS 72HR SURFACE PROG/RFS 72HR 500HPA PROG	120/576	00/12	
0620/1820	GFS 850HPA EQUATORIAL BELT WIND ANALYSIS	120/576	00/12	
0630/1830	GFS 200HPA EQUATORIAL BELT WIND ANALYSIS	120/576	00/12	
0640/1840	GFS 24HR 850HPA EQUATORIAL BELT WIND PROG	120/576	00/12	
0650/1850	GFS 24HR 200HPA EQUATORIAL BELT WIND PROG	120/576	00/12	
0710/1910	TYPHOON WARNINGS (ENGLISH & CHINESE)	120/576	06/18	
0730/1930	GMS SATELLITE IMAGE	120/576	06/18	
0745/1945	GFS 48HR 850HPA EQUATORIAL BELT WIND PROG	120/576	00/12	
0755/1955	GFS 48HR 200HPA EQUATORIAL BELT WIND PROG	120/576	00/12	
0805/------	WAVE ANALYSIS	120/576	0000	
0820/-------	36HR WAVE PROG	120/576	0000	
------/2005	GFS 72HR 850HPA EQUATORIAL BELT WIND PROG	120/576	1200	
------/2015	GFS 72HR 200HPA EQUATORIAL BELT WIND PROG	120/576	1200	
------/2025	GFS 96HR SURFACE PROG	120/576	1200	
------/2035	GFS 72HR SURFACE PROG	120/576	1200	
0850/2050	FISHERY WEATHER FORECAST (IN CHINESE)	120/576	06/18	
0930/2130	SURFACE ANALYSIS WITH PLOTTED DATA	120/576	06/18	
1010/------	TYPHOON WARNINGS (ENGLISH & CHINESE)	120/576	0900	
------/2150	GFS 120HR SURFACE PROG	120/576	1200	
------/2200	GFS 120HR 500HPA PROG	120/576	1200	
------/2210	TYPHOON WARNINGS (ENGLISH & CHINESE)	120/576	2100	

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

(SCHEDULE EFFECTIVE APR 01, 2002)
(INFORMATION DATED 10/2002) http://marine.cwb.gov.tw/CWBMMC/BMF-E.html

SEOUL, REPUBLIC OF KOREA

CALL SIGN	FREQUENCIES		TIMES	EMISSION	POWER
HLL2	5385	kHz	CONTINUOUS	F3C	3 KW
HLL2	5857.5	kHz	CONTINUOUS	F3C	3 KW
HLL2	7433.5	kHz	CONTINUOUS	F3C	3 KW
HLL2	9165	kHz	CONTINUOUS	F3C	3 KW
HLL2	13570	kHz	CONTINUOUS	F3C	3 KW

SEOUL, REPUBLIC OF KOREA

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0000/1200	LOCAL WEATHER ADVISORY/WARNING REPORT (KOREAN)	120/576		
0020/1220	LOCAL WEATHER ADVISORY/WARNING REPORT (KOREAN)	120/576	00/12	
0032/-------	LIGHTHOUSE WEATHER OBSERVATION REPORT (KOREAN)	120/576	0000	
0046/1246	WEATHER OBSERVATION REPORT FOR FISHERY (KOREAN)	120/576	00/12	
0120/-------	MANUAL AMENDMENTS	120/576		
0140/1340	SURFACE ANALYSIS	120/576	00/12	
0200/1400	TYPHOON WARNING AND FORECAST (1)(KOREAN)	120/576	00/12	
0300/------	KOREAN PENINSULA MONTHLY WEATHER FORECAST (2)(KOREAN)	120/576		
-------/1500	LOCAL WEATHER ADVISORY/WARNING REPORT (KOREAN)	120/576		
0320/1520	SEA-SHORE WEATHER OBSERVATION REPORT (KOREAN)	120/576	03/15	
0332/-------	LIGHTHOUSE WEATHER OBSERVATION REPORT (KOREAN)	120/576	0300	
0346/1546	WEATHER OBSERVATION REPORT FOR FISHERY (KOREAN)	120/576	03/15	
0415/-------	KOREAN PENINSULA WEEKLY WEATHER FORECAST (KOREAN)	120/576		
0440/1640	SURFACE ANALYSIS	120/576	03/15	
0455/1655	850MB ANALYSIS	120/576	00/12	
0507/1707	700MB ANALYSIS	120/576	00/12	
0519/1719	500MB ANALYSIS	120/576	00/12	
0600/1800	LOCAL WEATHER ADVISORY/WARNING REPORT (KOREAN)	120/576		
0620/1820	SEA-SHORE WEATHER OBSERVATION REPORT (KOREAN)	120/576	0618	
0632/-------	LIGHTHOUSE WEATHER OBSERVATION REPORT (KOREAN)	120/576	0600	
0646/1846	WEATHER OBSERVATION REPORT FOR FISHERY (KOREAN)	120/576	06/18	
0700/1900	SATILLITE IMAGERY	120/576	0530/1730	
0712/-------	SST OBSERVATION CHART OF NEAR KOREAN PENINSULA AREA	120/576		
0740/1940	SURFACE ANALYSIS	120/576	06/18	
0800/2000	TYPHOON WARNING AND 12HR/24HR FORECASTS (1) (KOREAN)	120/576	06/18	
0821/2021	12HR SEA WAVE HT & WIND FORECAST OF NEAR KOREAN PENINSULA	120/576	00/12	
0834/2034	24HR SEA WAVE HT & WIND FORECAST OF NEAR KOREAN PENINSULA	120/576	00/12	
0847/2047	36HR SEA WAVE HT & WIND FORECAST OF NEAR KOREAN PENINSULA	120/576	00/12	
0900/2100	SEA WEATHER FORECAST OVER NEAR KOREAN PENINSULA (KOREAN)	120/576	0830/2030	
0920/2120	SEA-SHORE WEATHER OBSERVATION REPORT (KOREAN)	120/576	09/21	
0932/2132	LIGHTHOUSE WEATHER OBSERVATION REPORT (KOREAN)	120/576	09/21	
0946/2146	WEATHER OBSERVATION REPORT FOR FISHERY (KOREAN)	120/576	09/12	
1012/2212	WEATHER FORECAST FOR SHIP ROUTE (KOREAN)	120/576	0830/2030	
------/2227	LIGHTHOUSE WEATHER OBSERVATION REPORT (3) (KOREAN)	120/576	2200	
1040/2240	SURFACE ANALYSIS	120/576	09/21	

NOTES:
1. IN CASE OF TYPHOON.
2. BROADCAST AT THE END OF THE MONTH.
3. NOVEMBER TO APRIL.
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.

(INFORMATION DATED 02/1999)

BANGKOK, THAILAND

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
HSW64	7396.8 kHz		F3C	3 KW
HSW61	17520 kHz		F3C	10 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0100/0700	FORECAST FOR SHIPPING (IN ENGLISH)	120/576	00/06	A
0120/……	SURFACE PROG	120/576	1200	A
0140/……	SURFACE ANALYSIS	120/576	1800	A
0300/0720	24 HR SURFACE PROG	120/576	12/12	A
0320/0740	48 HR SURFACE PROG	120/576	12/12	A
0340/0800	72 HR SURFACE PROG	120/576	12/12	A
……./0820	24 HR 850 MB WIND/TEMP PROG	120/576	1200	A

BANGKOK, THAILAND

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0400/1000	FORECAST FOR SHIPPING (IN ENGLISH)	120/576	03/09	A
0420/……	24 HR 850 MB WIND/TEMP PROG	120/576	1200	A
0500/1020	SURFACE ANALYSIS	120/576	00/06	A
0500/……	TEST CHART	120/576		
0520/……	850 MB ANALYSIS	120/576	0000	A
0540/……	700 MB ANALYSIS	120/576	0000	A
0600/……	500 MB ANALYSIS	120/576	0000	A
……/1300	FORECAST FOR SHIPPING (IN ENGLISH)	120/576	1200	A
……/1700	FORECAST FOR SHIPPING (IN ENGLISH)	120/576	1700	A
……/1720	SURFACE ANALYSIS	120/576	1200	
……/2300	FORECAST FOR SHIPPING (IN ENGLISH)	120/576	1700	A
……/2320	SURFACE ANALYSIS	120/576	1800	A

MAP AREA: A - 1:20,000,000 50N 045E, 50N 160E, 30S 045E, 30S 160E

(INFORMATION DATED 11/97)

TASHKENT 1, UZBEKISTAN

CALL SIGNS	FREQUENCIES		TIMES	EMISSION	POWER
RBV70	3690	kHz	1300-0130	F3C	
RPJ78	4365	kHz	CONTINUOUS	F3C	
RBV78	5890	kHz	CONTINUOUS	F3C	
RBX72	7570	kHz	0130-1300	F3C	
RCH72	9340	kHz	CONTINUOUS	F3C	
RBV76	14982.5	kHz	CONTINUOUS	F3C	

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
------/1215	NEPHANALYSIS	90/576	------	A*
0110/------	RADAR DATA	90/576	0000	E
0130/1325	18HR SIGNIFICANT WEATHER PROG	60/576	06/18	D
0155/1355	SURFACE ANALYSIS	60/576	00/12	B
0255/1455	SURFACE ANALYSIS	60/576	00/12	A
0345/1540	700MB ANALYSIS	90/576	00/12	A
------/1615	400MB ANALYSIS	90/576	1200	A
0420/------	NEPHANALYSIS	90/576	------	A
0450/------	300MB ANALYSIS	120/576	0000	A
------/1655	SURFACE ANALYSIS	60/576	1500	B
0515/------	850MB ANALYSIS	90/576	0000	A
------/1745	500/1000MB ANALYSIS	90/576	1200	A
0625/1850	36HR 500MB PROG	120/288	12/00	C
0633/------	36HR 850MB/700MB/500MB VERTICAL MOTION PROGS	90/576	1200	C
0650/------	RADAR DATA	90/576	0600	E
------/1905	PRECIPITATION AND MAX TEMPS	60/576	1500	K
0720/------	400MB ANALYSIS	90/576	0000	A
0755/1930	SURFACE ANALYSIS	60/576	06/18	B
------/2020	SURFACE ANALYSIS	60/576	1800	A
0845/------	50MB ANALYSIS	90/576	0600	A
------/2105	36HR 850MB/700MB/500MB VERTICAL MOTION PROGS	90/576	0000	C
0930/2122	TROPOPAUSE ANALYSIS	90/576	00/12	A
------/2200	RADAR DATA	90/576	2100	E
1005/------	500/1000MB ANALYSIS	90/576	0000	A
1055/2255	SURFACE ANALYSIS	60/576	09/21	B
------/2345	24HR 850MB/700MB/500MB VERTICAL MOTION PROGS	90/576	1200	C

NOTE: DESCRIPTIONS OF MAP AREAS ARE LISTED IN PROGRAM 2..

(INFORMATION DATED 09/1990)

TASHKENT 2, UZBEKISTAN

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
RBX70	3280 kHz	CONTINUOUS	F3C	
RBX71	5285 kHz	CONTINUOUS	F3C	
RIJ75	8083 kHz	1400-0200	F3C	
RCH73	9150 kHz	CONTINUOUS	F3C	
ROM5	13947 kHz	0200-1400	F3C	

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0030/------	BROADCAST SCHEDULE	90/576		
0050/1250	RADAR DATA	90/576	00/12	E
0130/	18HR SIGNIFICANT WEATHER PROG	60/576	06/18	H
-------/1330	PREBARIC CHART	60/576	1800	H
0258/------	48HR 500MB PROG	90/576	0000	C
0315/1515	300MB ANALYSIS	90/576	00/12	A
0350/1550	RADAR DATA	90/576	03/15	E
0410/1605	500MB ANALYSIS	90/576	00/12	A
-------/1640	850MB ANALYSIS	90/576	1200	A
0500/------	SURFACE ANALYSIS	60/576	0300	B
0550/1720	200MB ANALYSIS	90/576	00/12	A
-------/1755	100MB ANALYSIS	90/576	1200	A
0625/------	PRECIPITATION/TEMPERATURE EXTREMES	90/576	1200	A
0640/------	400MB ANALYSIS	90/576	0000	A
-------/1905	RADAR DATA	90/576	1800	E
0715/------	100MB ANALYSIS	90/576	0000	A
0750/1930	15HR 300MB/SIGNIFICANT WEATHER PROG	90/576	15/03	H
-------/2 015	MAX WIND ANALYSIS	90/576	1200	D*
0830/------	500MB ANALYSIS	60/576	0600	A
0915/2105	MAX WIND ANALYSIS	90/576	00/18	A/D*
-------/2122	700MB ANALYSIS	90 /576	1800	D*
-------/2139	500MB ANALYSIS	90/576	1800	D*
0950/------	RADAR DATA	90/576	0900	E
-------/2155	400MB ANALYSIS	90/576	1800	D*
-------/2212	300MB ANALYSIS	90/576	1800	D*
1140/2320	12HR 300MB/SIGNIFICANT WEATHER PROGS	90/576	18/00	H

MAP AREAS:

A - 1:15,000,000	45N	037W,	43N	125E,	16N	011E,	15N	078E
A* - 1:15,000,000	57N	005W,	27N	123E,	14N	030E,	02N	088E
B - 1:05,000,000	45N	030E,	49N	081E,	26N	040E,	28N	077E
C - 1:15,000,000	53N	006W,	48N	095E,	25N	026E,	22N	072E
D - 1:15,000,000	56N	021W,	58N	108E,	30N	016E,	31N	072E
D* - 1:15,000,000	70N	008W,	47N	118E,	34N	029E,	24N	082E
H - 1:15,000,000	56N	021E,	58N	108E,	30N	016E,	31N	072E
K - 1:07,500,000	47N	038E,	49N	079E,	30N	046E,	31N	174E

(INFORMATION DATED 07/1997)
Update 03/2002 - Reported as being non-operational since mid 2001

KYODO NEWS AGENCY, JAPAN/SINGAPORE

CALL SIGNS	FREQUENCIES		TIMES	EMISSION	POWER	
JJC	4316	kHz	CONTINUOUS	F3C	5	KW
JJC	8467.5	kHz	CONTINUOUS	F3C	10	KW
JJC	12745.5	kHz	CONTINUOUS	F3C	15	KW
JJC	16971	kHz	CONTINUOUS	F3C	15	KW
JJC	17069.6	kHz	CONTINUOUS	F3C	15	KW
JJC	22542	kHz	CONTINUOUS	F3C	15	KW
9VF/252	16035	kHz	0740-1010, 1415-1815	F3C	10	KW
9VF/252	17430	kHz	0740-1010, 1415-1815	F3C	10	KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0145	Sports Ed 2(R), (Seasonal during Sumo or High School baseball series)	60/576		
0200	MON: NX for 1 week	120/576		
0200	TUE-SUN: NX (R),Epidemic Information(R)(SUN only),	120/576		
	Ocean Information(N)(4th,14th, and 24th,3rd,13th,23rd if a MON)	60/576		
0245	Morning Ed(R), Sports Ed 1(R), NX(R)	60/576		
0430	WX Chart	120/576	0000	
0430	Ocean Information(n)(4th,14th, and 24th)	120/576		
0540	TUE&FRI: Satellite Fishery Information	60/576		
0540	SAT&SUN: Ocean Graphic Information	60/576		
0540	SUN&MON: Sea Surface Current Prog	60/576		
0610	TUE-SAT: English Ed (R)	120/576		
0635	MON-SAT: FAX DAYORI 4(N), (except 2nd & 4th MON	60/576		
	and every WED and FRI)			
0650	SUN:WX Chart, Fishing Information (3 times per month)	60/576	0300	
0650	MON-SAT: WX Chart	60/576	0300	
0705	Background Stories(N), Life(N)(except MON)	60/576		
0745	SUN:			
	Sunday Ed(N), FAX DAYORI 1,2,3 (N)	60/576		
	Sumo match (begins 0930 SAT as well)	60/576		
0745	MON-SAT:			
	Evening Ed(N), Kaiun-Suisan News(N) (Except SAT),	60/576		
	Epidemic Information(N)(SAT only), FAX DAYORI 1(N),	60/576		
	Sumo match (Seasonal)(N), FAX DAYORI 2(N)(except TUE&SAT)	60/576		
0745	NATIONAL HOLIDAYS:			
	Morning Ed(R), Sports Ed 1 (R), FAX DAYORI 1(N),	60/576		
	Sumo match (Seasonal)(N)FAX DAYORI 2(N)	60/576		
1100	NX (N), Sumo match (Seasonal)(R)	60/576		
1130	MON-FRI: English Ed (N)	60/576		
1335	Background Stories(R), Life(R)(except MON)	60/576		
1415	MON-FRI: Kaiun-Suisan News(R)	60/576		
1445	Sports Ed 2(N), (Seasonal during Sumo or High School baseball series)	60/576		
1500	Morning Ed(N), Sports Ed 1(N), NX(R)	60/576		
1645	MON: Sunday Ed(R)	60/576		
1645	TUE-SUN: Evening Ed(R)	60/576		
1810	TUE-SAT: English Ed (R)	60/576		
1930	MON: Evening Ed(R), NX(R), FAX DAYORI 2,1,3 (R)	60/576		
1930	TUE-SUN: Evening Ed(R), NX(R), FAX DAYORI 2,1,4	60/576		
	(no 4 on THU,SAT and TUE following 2nd & 4th MON			
	Also no 2 on WED and SUN)(R)			
2030	DAY AFTER NATIONAL HOLIDAYS: NX(R), FAX DAYORI 2,1,4 (R)	60/576		
2215	MON and DAY AFTER NATIONAL HOLIDAYS:			
	Morning Ed(R),Sports Ed 1,2(R),NX(R),FAX DAYORI 1-3(R)(3 Mon only)	60/576		
	WX Chart	60/576	2100	
2215	TUE-SUN:			
	Morning Ed(R), Sports Ed 1,2(R), NX(R),	60/576		
	Kaiun-Suisan News(R) (Except SUN), Epidemic Info (SUN only)	60/576		
	FAX DAYORI 1,2 (R)(no 2 on SUN and WED)	60/576		
	WX Chart	60/576	2100	

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)

CALL SIGNS	FREQUENCIES		TIMES	EMISSION	POWER
GYA	6834	kHz	CONTINUOUS	F3C	10 KW
GYA	3289.5	kHz	ALTERNATE	F3C	10 KW
GYA	18261	kHz	CONTINUOUS	F3C	10 KW
GYA	14436	kHz	ALTERNATE	F3C	10 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0230/1430	SCHEDULE	120/576		
0306/1506	SURFACE ANALYSIS	120/576	00/12	
0406/------	SURFACE ANALYSIS	120/576	0000	
0506/1806	SURFACE ANALYSIS	120/576	00/12	
0630/1830	SURFACE PROG T +24	120/576	00/12	
0642/1842	SURFACE PROG T +48	120/576	00/12	
0654/1854	SURFACE PROG T +72	120/576	00/12	
0706/1906	SURFACE PROG T +96	120/576	00/12	
0718/1918	SURFACE PROG T +120	120/576	00/12	
0754/------	SURFACE PROG T +24	120/576	0000	
0806/2006	Ambient Noise Prog T+24	120/576	0000	
0818/2018	Mixed Layer Depth Prog T+24	120/576	0000	
0830/------	Sea and Swell Prog T+24	120/576	0000	
0842/2030	Sea Surface Temp T+24	120/576	0000	
------/2042	Sea and Swell Prog T+24	120/576	0000	
------/2206	SURFACE PROG T +24	120/576	1200	

INFORMATION DATED 04 FEB 2004 http://www.users.zetnet.co.uk/tempusfugit/marine/fwocgulf.htm
(Unofficial link, information unavailable from official sources)

SOUTH AMERICA

PUERTO BELGRANO ARGENTINA

CALL SIGN	FREQUENCIES		TIMES	EMISSION	POWER
LOR	5705	kHz		F3C	
	12672	kHz		F3C	

NO INFORMATION ABOUT THIS BROADCAST IS AVAILABLE OTHER THAN IT IS BEING TRANSMITTED BY THE ARGENTINE NAVY. THE CONTENTS OF THIS BROADCAST ARE IN SPANISH.

(INFORMATION DATED July 1997)

RIO DE JANEIRO, BRAZIL

CALL SIGNS	FREQUENCIES		TIMES	EMISSION	POWER
PWZ-33	12665	kHz	CONTINUOUS	F3C	1 KW
PWZ-33	16978	kHz	CONTINUOUS	F3C	1 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0745/1630	TEST CHART	120/576		
0750/1635	SURFACE ANANYSIS (Hpa)	120/576	00/12	A
0810/1655	WAVES SIG HEIGHT (m) AND DIR PROG 12Z+36HR	120/576	00/12	B
0830/1715	WIND AT 10 m (KTS) PROG 12Z+36 HR	120/576	00/12	C
0850/1735	SEA SURFACE TEMPERATURE	120/576	12/00	D

MAP AREA: A: 1:53,000,000 20N 090W, 20N 020E, 70S 090W, 70S 020E
B: 1:58,000,000 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

(INFORMATION DATED 15 Jun 2004) http://www.dhn.mar.mil.br/chm/meteo/info/apend_4ing.htm

VALPARAISO PLAYA ANCHA, CHILE

CALL SIGNS	FREQUENCIES		TIMES	EMISSION	POWER
CBV	4228.0	kHz	CONTINUOUS	F3C	1 KW
CBV	8677.0	kHz	CONTINUOUS	F3C	1 KW
CBV	17146.4	kHz	CONTINUOUS	F3C	1 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
1115	SURFACE ANALYSIS	120/576	0600	A
1130	SATELLITE IMAGE	120/576	0900	A
1630	SURFACE ANALYSIS	120/576	1200	A
1645	SATELLITE IMAGE	120/576	1500	A
1915	SIGNIFICANT WAVE MAP (MTS)	120/576	1200	A
1930	SATELLITE IMAGE	120/576	1800	A
2200	SURFACE ANALYSIS	120/576	1800	A
2215	ICE REPORT	120/576		A
2230	12HR WINDS BARB ISOTACHS FORECAST	120/576	1200	A
2310	12HR SURFACE FORECAST	120/576		A
2325	SATELLITE IMAGE	120/576	2100	A

MAP AREA: A: 10S-120W, 10S-050W, 80S-130W, 80S-030W

(INFORMATION DATED Sep 10, 2003) http://www.directemar.cl/meteo/operador/horarios.htm

NORTH AMERICA

HALIFAX, NOVA SCOTIA, CANADA

CALL SIGN	FREQUENCIES		TIMES	EMISSION	POWER
CFH	122.5	kHz	CONTINUOUS	F3C	10 KW
	4271	kHz	CONTINUOUS	F3C	6 KW
	6496.4	kHz	CONTINUOUS	F3C	6 KW
	10536	kHz	CONTINUOUS	F3C	6 KW
	13510	kHz	CONTINUOUS	F3C	6 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC TIME	VALID AREA	MAP
0001/------	LABRADOR COAST ICE CHART (SEASONAL)	120/576	LATEST	
-------/1201	3-DAY PROG	120/576	1200	G
0101/------	SATELLITE PHOTO INFRARED	120/576	0000	
-------/1222	4-DAY PROG	120/576	1200	G
-------/1301	5-DAY PROG	120/576	1200	G
0201/1401	12/00Z SIGNIFICANT WEATHER DEPICTION	120/576	12/00	A
0301/1501	500MB ANALYSIS	120/576	00/12	B
0322/1522	SURFACE ANALYSIS	120/576	00/12	F
-------/1601	850MB ANALYSIS	120/576	1200	B
0401/1622	36HR 500MB FORECAST	120/576	12/00	H
0422/1701	24HR SURFACE PROG	120/576	00/12	A
0501/-----	850 MB FORECAST WINDS	120/576	18&00	C
0601/1801	36HR SURFACE PROG	120/576	12/00	A
------/1822	850MB FORECAST WINDS	120/576	06&12	C
0701/1901	18/06Z SIIGNIFICANT WEATHER DEPICTION	120/576	18/06	A
0801/2001	24/36HR SIGNIFICANT WAVE PROGNOSIS	120/576	0&12/12&0	A
0901/2101	SURFACE ANALYSIS	120/576	06/18	F
1001/------	SST: NOVA SCOTIA - MON NEWFOUNDLAND - TUE/FRI	120/576	LATEST	E/D
1001/------	OFA: NOVA SCOTIA - WED/SAT NEWFOUNDLAND - SUN/THU	120/576	LATEST	E/D
------/2201	SST: NOVA SCOTIA - TUE/THU/FRI NEWFOUNDLAND - WED/SAT	120/576	LATEST	E/D
------/2201	OFA: NOVA SCOTIA - SUN NEWFOUNDLAND - MON	120/576	LATEST	E/D
1022/------	SATELLITE PHOTO INFRARED	120/576	0900	
-------/2222	NEWFOUNDLAND ICE CHART	120/576	LATEST	
1101/------	CFH BROADCAST SCHEDULE	120/576		
-------/2301	GULF OF ST LAWRENCE ICE CHART (SEASONAL)	120/576	LATEST	

NOTES:

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

MAP AREAS:
A. 49N90W, 64N16W, 28N67W, 5N27W
B. 76N16W, 30N20W, 23N110W, 08N69W
C. 48N85W, 65N15W, 28N62W, 34N23W
D. 60N68W, 53N30W, 42N66W, 38N40W
E. 46N77W, 48N46W, 32N74W, 32N51W
F. 59N110W, 59N10W, 25N82W, 25N40W
G. 49N21W, 27N40W, 27N80W, 49N94W
H. 30N107W, 15N67W, 34N24W, 79N60W

(INFORMATION DATED 2003) http://www.ccg-gcc.gc.ca/mcts-sctm/ramn_arnm/Atlantic/part_5_e.htm

IQALUIT, N.W.T., CANADA

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
VFF	3253.0 kHz USB		J3C	5 KW
VFF	7710.0 kHz USB		J3C	5 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0500/------	ICE ANALYSIS (AREAS 1,2,3,4,5,6,7)	120/576		
1000/2100	Marine Surface Analysis (Arctic)	120/576		
	Marine wind prognosis (Arctic) (experimental product)			
	Regional Marine Wind Prognosis (on request)			
------/2125	ICE ANALYSIS (AREAS 1,2,3,4,5,6,7)	120/576		

MAP AREA:
1. HUDSON BAY (SOUTH)
2. HUDSON BAY (NORTH)
3. HUDSON STRAIT
4. FOXE BASIN
5. LABRADOR COAST
6. DAVIS STRAIT
7. BAFFIN BAY

NOTE: THE AREAS INCLUDED IN THE BROADCASTS VARY WITH ICE CONDITIONS AND MARINE ACTIVITY. ALL CHARTS AVAILABLE CAN BE TRANSMITTED ON REQUEST.

(INFORMATION DATED 2003) http://www.ccg-gcc.gc.ca/mcts-sctm/ramn_arnm/Atlantic/part_2_e.htm

RESOLUTE, N.W.T., CANADA

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
VFR	3253.0 kHz	1 JUL-15 OCT	J3C	5 KW
VFR	7710.0 kHz	1 JUL-15 OCT	J3C	5 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0010/------	ICE ANALYSIS (AREAS 7, 8, 9, 10, 11)	120/576		
0700/------	ICE ANALYSIS (AREAS 7, 8, 9, 10, 11)	120/576		
1100/2330	Marine Surface Analysis (Arctic)	120/576		
	Marine wind prognosis (Arctic) (experimental product)			
	Regional Marine Wind Prognosis (on request)			

MAP AREAS:
7. BAFFIN BAY
8. APPROACHES TO RESOLUTE
9. EUREKA SOUND
10. PARRY CHANNEL
11. QYENN MAUDE/PRINCE REGENT

(INFORMATION DATED 2003) http://www.ccg-gcc.gc.ca/mcts-sctm/ramn_arnm/Atlantic/part_2_e.htm

SYDNEY - NOVA SCOTIA, CANADA

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
VCO	4416 kHz	1121-1741	J3C	
VCO	6915 kHz	2200-2331	J3C	

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
1121	ICE ANALYSIS GULF OF ST. LAWRENCE	120/576		
1142	ICE ANALYSIS EAST OR SOUTHEAST NEWFOUNDLAND WATERS	120/576		
1741	ICE ANALYSIS ICEBERG LIMIT	120/576		
2200	ICE ANALYSIS GULF OF ST. LAWRENCE	120/576		
2331	ICE ANALYSIS EAST OR SOUTHEAST NEWFOUNDLAND WATERS	120/576		

(INFORMATION DATED 2003) http://www.ccg-gcc.gc.ca/mcts-sctm/ramn_arnm/Atlantic/part_2_e.htm

KODIAK, ALASKA, U.S.A.

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
NOJ	2054 kHz	0950-1159, 1600-1748	F3C	4 KW
	4298 kHz	CONTINUOUS	F3C	4 KW
	8459 kHz	CONTINUOUS	F3C	4 KW
	12412.5 kHz	0400-0548, 2150-0018	F3C	4 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID	MAP
0400/1600	TEST PATTERN	120/576		
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	02/00	1
0447/1647	COASTAL MARINE FORECAST TABLES (ALASKA)	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		
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/SEA ICE ANALYSIS	120/576	LATEST	6
1117/2317	GOES IR SATELLITE IMAGE	120/576	00/12	5
1128/2328	48HR WAVE PERIOD, SWELL DIRECTION	120/576	00/12	1
1138/2338	48HR 500 MB ANALYSIS	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 ANALYSIS	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

NOTES: 1. BROADCAST MAY BE PERFORMED ON FOUR FREQUENCIES SIMULTANEOUSLY WHEN RESOURSES ARE AVAILABLE
2. CARRIER FREQUENCY IS 1.9 kHz BELOW THE ASSIGNED FREQUENCY
3. COMMENTS AND SUGGESTIONS SHOULD BE DIRECTED TO:

METEOROLOGIST-IN-CHARGE
NATIONAL WEATHER SERVICE/NOAA
6930 SAND LAKE ROAD
ANCHORAGE, AK 99502-1845
PH: (907) 266-5105/FAX: (907) 266-5188
E-MAIL: nwsfoanc@alaska.net

(EFFECTIVE DATE Jan 15, 2004)
(INFORMATION DATED Feb 10, 2004)tdr

http://weather.noaa.gov/fax/alaska.shtml

PT. REYES, CALIFORNIA, U.S.A.

CALL SIGN	FREQUENCIES		TIMES	EMISSION	POWER
NMC	4346	kHz	NIGHT	F3C	4 KW
	8682	kHz	CONTINUOUS	F3C	4 KW
	12590.5	kHz	CONTINUOUS	F3C	4 KW
	17151.2	kHz	CONTINUOUS	F3C	4 KW
	22527	kHz	DAY	F3C	4 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0230/1430	TEST PATTERN	120/576		
0235/------	TROPICAL 0/24 HR WIND/WAVE FORECAST	120/576	00&00	4
0248/1438	GOES IR SATELLITE IMAGE	120/576	LATEST	7/5
0259/1449	GOES IR SATELLITE IMAGE	120/576	LATEST	5/6
0310/1500	SEA STATE ANALYSIS	120/576	00/12	1/8
-------/1510	TROPICAL 0/24HR WIND/WAVE FORECAST (2 CHARTS)	120/576	12&12	4
0320/1520	SURFACE ANALYSIS (PART 1 NE PACIFIC)	120/576	00/12	2
0333/1533	SURFACE ANALYSIS (PART 2 NW PACIFIC)	120/576	00/12	3
0345/1545	500MB ANALYSIS	120/576	00/12	1
0355/1555	TROPICAL CYCLONE DANGER AREA (see note 1)	120/576	03/15	10
0408/------	TROPICAL 48HR WIND/WAVE FORECAST	120/576	0000	4
0750/------	TEST PATTERN	120/576		
0755/1608	TROPICAL SURFACE ANALYSIS	120/576	00/12	4
-------/1930	TEST PATTERN	120/576		
0808/1933	24HR SURFACE FORECAST	120/576	00/12	8
0818/1943	24HR WIND/WAVE FORECAST	120/576	00/12	8
0828/1953	48HR 500MB 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 FORECAST	120/576	00/12	1
-------/2033	96HR 500MB 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 FORECAST	120/576	1200	1
0908/2113	GOES IR SATELLITE IMAGE	120/576	06/18	7/5
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
0944/------	GOES IR SATELLITE IMAGE	120/576	0600	5
-------/2149	TROPICAL 0/24HR WIND/WAVE FORECAST (2 CHARTS)	120/576	18&18	4
0955-------	TROPICAL 0/24HR WIND/WAVE FORECAST (2 CHARTS)	120/576	06&06	4
1008/------	TROPICAL 48 HR WAVE PERIOD/SWELL DIRECTION	120/576	1200	4
------/2159	TROPICAL 48/72 HR WAVE PERIOD/SWELL DIRECTION	120/576	00&00	4
------/2212	TROPICAL SURFACE ANALYSIS	120/576	1800	4
1100/2300	TEST PATTERN	120/576		
-------/2304	SST ANALYSIS	120/576	LATEST	9
-------/2314	SST ANALYSIS	120/576	LATEST	6
1104/2324	BROADCAST SCHEDULE (PART 1)	120/576		
1115/2335	BROADCAST SCHEDULE (PART 2)	120/576		
1126/------	REQUEST FOR COMMENTS	120/576		
1137/------	PRODUCT NOTICE BULLETIN	120/576		
1148/------	TROPICAL SURFACE ANALYSIS	120/576	0600	4
1158/------	TROPICAL 48/72HR WIND/WAVE FORECAST	120/576	12&12	4

MAP AREAS:
1. 20N - 70N, 115W - 135E
2. 20N - 70N, 115W - 175W
3. 20N - 70N, 175W - 135E
4. 20S - 30N, EAST OF 145W
5. 05N - 60N, WEST OF 100W
6. 23N - 42N, EAST OF 136W
7. 05N - 55N, EAST OF 130W
8. 25N - 60N, EAST OF 155W
9. 40N - 53N, EAST OF 136W
10. 0N - 40N, 80W – 180W

NOTES:1.REPLACED BY HIGH WIND/WAVE WARNING WHEN NOT IN HURRICANE SEASON
2.CARRIER FREQUENCY IS 1.9 KHZ BELOW ASSIGNED FREQUENCY
3. COMMENTS AND SUGGESTIONS CONCERNING THIS BROADCAST SHOULD BE DIRECTED TO:

NATIONAL WEATHER SERVICE/NOAA
NATIONAL CENTER FOR ENVIRONMENTAL PREDICTION
MARINE FORECAST BRANCH W/NMC31
5200 AUTH ROAD
CAMP SPRINGS, MD 20746-4304
PHONE: (301) 763-8000 X7401/FAX: (301) 763-8085
EMAIL: David.Feit@noaa.gov

(INFORMATION DATED Aug 16, 2004) http://weather.noaa.gov/fax/ptreyes.shtml

NEW ORLEANS, LOUISIANA, U.S.A.

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
NMG	4317.9 kHz	CONTINUOUS	F3C	4 KW
	8503.9 kHz	CONTINUOUS	F3C	4 KW
	12789.9 kHz	CONTINUOUS	F3C	4 KW
	17146.4 kHz	1200-2045	F3C	4 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0000/1200	TEST PATTERN	120/576		
0005/1205	U.S. / TROPICAL SURFACE ANALYSIS (W HALF)	120/576	18/06	1
0020/1220	TROPICAL SURFACE ANALYSIS (E HALF)	120/576	18/06	2
0035/1235	24 HR WIND/WAVE FORECAST	120/576	00/12	3
0045/1245	48 HR WIND/WAVE FORECAST	120/576	00/12	3
0055/1255	72 HR WIND/WAVE FORECAST	120/576	00/12	3
0105/1305	24 HR SURFACE FORECAST	120/576	00/12	3
0115/1315	48 HR SURFACE FORECAST	120/576	00/12	3
0125/1325	72 HR SURFACE FORECAST	120/576	00/12	3
0135/1335	TROPICAL CYCLONE DANGER AREA* or HIGH WIND/WAVES	120/576	21/09	6
0150/------	72 HR WAVE PERIOD/SWELL DIRECTION	120/576	0000	3
------/1350	(REBROADCAST OF 0150)	120/576	0000	3
0200/1400	GOES IR TROPICAL SATELLITE IMAGE	120/576	00/12	4
0215/1415	00HR SEA STATE ANALYSIS	120/576	00/12	3
------/1425	PRODUCT NOTICE BULLETIN	120/576		
0225/1445	HIGH SEAS FORECAST (IN ENGLISH)	120/576	22/10	5
0600/1800	TEST PATTERN	120/576		
0605/1805	U.S. / TROPICAL SURFACE ANALYSIS (W HALF)	120/576	00/12	1
0620/1820	TROPICAL SURFACE ANALYSIS (E HALF)	120/576	00/12	2
0635/1835	24 HR WIND/WAVE FORECAST	120/576	06/18	3
0645/1845	REBROADCAST OF 0045/1245	120/576	00/12	3
0655/1855	REBROADCAST OF 0055/1255	120/576	00/12	3
0705/1905	REBROADCAST OF 0105/1305	120/576	00/12	3
0715/1915	REBROADCAST OF 0115/1315	120/576	00/12	3
0725/1925	REBROADCAST OF 0125/1325	120/576	00/12	3
0735/1935	TROPICAL CYCLONE DANGER AREA* or HIGH WIND/WAVES	120/576	03/15	6
0750/1950	48 HR WAVE PERIOD/SWELL DIRECTION	120/576	12/00	3
0800/2000	GOES IR TROPICAL SATELLITE IMAGE	120/576	07/18	4
0815/2015	REBROADCAST OF 0215/1415	120/576	00/12	3
0825/2025	REQUEST FOR COMMENTS/BROADCAST SCHEDULE	120/576		
0845/2045	HIGH SEAS FORECAST (IN ENGLISH)	120/576	04/16	5

NOTES:1.REPLACED BY HIGH WIND/WAVE WARNING WHEN NOT IN HURRICANE SEASON DEC 01 - MAY 15. VALID TIMES 00Z, 06Z,12Z AND 18Z. 05N - 40N, 35W - 100W
2.CARRIER FREQUENCY IS 1.9 KHZ BELOW ASSIGNED FREQUENCY
3.THIS BROADCAST ORIGINATES FROM THE TROPICAL PREDICTION CENTER (FORMERLY THE NATIONAL HURRICANE CENTER) OF THE NATIONAL WEATHER SERVICE. COMMENTS AND SUGGESTIONS SHOULD BE DIRECTED TO:

TROPICAL PREDICTION CENTER
ATTN: CHIEF OF TAFB
11691 SOUTHWEST 17TH STREET
MIAMI, FL 33165-2149
PHONE: (305) 229-4430/FAX: (305) 553-1264
EMAIL: tpc.mar@noaa.gov

MAP AREAS:
1. 05S-50N, 55W-125W
2. 05S-50N, 00W-070W
3. 00N-31N, 35W-100W
4. 12S-44N, 28W-112W
5. 07N-31N, 35W-098W (AREA COVERED BY TEXT FORECAST)
6. 05N-60N, 00W-100W

(Information dated Feb 10, 2004) http://weather.noaa.gov/fax/gulf.shtml

BOSTON, MASSACHUSETTS, U.S.A.

CALL SIGN	FREQUENCIES		TIMES	EMISSION	POWER	
NMF	4235	kHz	0230z-1015z	F3C	4	KW
	6340.5	kHz	CONTINUOUS	F3C	4	KW
	9110	kHz	CONTINUOUS	F3C	4	KW
	12750	kHz	1400z-2215z	F3C	4	KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0230/1400	TEST PATTERN	120/576		
-------/1405	BROADCAST SCHEDULE (PART 1)	120/576		
-------/1420	BROADCAST SCHEDULE (PART 2)	120/576		
-------/1433	REQUEST FOR COMMENTS	120/576		
-------/1443	PRODUCT NOTICE BULLETIN	120/576		
0233/1453	PRELIMINARY SURFACE ANALYSIS	120/576	00/12	1
0243/------	BROADCAST SCHEDULE (PART 1)	120/576		
0254/------	BROADCAST SCHEDULE (PART 2)	120/576		
0305/------	REQUEST FOR COMMENTS	120/576		
-------/1503	GOES IR SATELLITE IMAGE	120/576	1200	5
0315/1515	SEA STATE ANALYSIS	120/576	00/12	1
0325/1525	SURFACE ANALYSIS (PART 1 NE ATLANTIC)	120/576	00/12	2
0338/1538	SURFACE ANALYSIS (PART 2 NW ATLANTIC)	120/576	00/12	3
0351/------	GOES IR SATELLITE IMAGE	120/576	0000	5
-------/1600	ICE CHARTS (FROM INTERNATIONAL ICE PATROL)	120/576	LATEST	
-------/1720	TEST PATTERN	120/576		
0402/1723	SURFACE ANALYSIS (PART 1) (REBROADCAST OF 0325/1525)	120/576	00/12	2
0415/1736	SURFACE ANALYSIS (PART 2) (REBROADCAST OF 0338/1538)	120/576	00/12	3
0428/1749	500MB ANALYSIS	120/576	00/12	4
-------/1759	SEA STATE ANALYSIS	120/576	1200	4
-------/1810	ICE CHARTS (FROM INTERNATIONAL ICE PATROL)	120/576	LATEST	
0745/1900	TEST PATTERN	120/576		
0755/------	PRELIMINARY SURFACE ANALYSIS	120/576	0600	1
0805/1905	24HR SURFACE FORECAST	120/576	00/12	1
0815/1915	24HR WIND/WAVE FORECAST	120/576	00/12	1
0825/1925	24HR 500MB FORECAST	120/576	00/12	1
0835/1935	36HR 500MB FORECAST	120/576	12/00	4
0845/1945	48HR 500MB FORECAST	120/576	00/12	4
0855/1955	48HR SURFACE FORECAST	120/576	00/12	4
0905/2005	48HR WIND/WAVE FORECAST	120/576	00/12	4
0915/2015	48HR WAVE PERIOD FORECAST	120/576	00/12	4
-------/2025	PRELIMINARY SURFACE ANALYSIS	120/576	1800	1
-------/2035	96HR 500MB FORECAST	120/576	1200	4
-------/2045	96HR SURFACE FORECAST	120/576	1200	4
-------/2055	96HR WIND/WAVE FORECAST	120/576	1200	4
-------/2105	96HR WAVE PERIOD FORECAST	120/576	1200	4
-------/2115	96HR SURFACE FORECAST (REBROADCAST OF 2045)	120/576	1200	4
0925/2125	SURFACE ANALYSIS (PART 1 NE ATLANTIC)	120/576	06/18	2
0938/2138	SURFACE ANALYSIS (PART 2 NW ATLANTIC)	120/576	06/18	3
0951/2151	GOES IR SATELLITE IMAGE	120/576	06/18	6
1002/2202	SURFACE ANALYSIS (PART 1) (REBROADCAST OF 0925/2125)	120/576	06/18	2
1015/2215	SURFACE ANALYSIS (PART 2) (REBROADCAST OF 0938/2138)	120/576	06/18	3

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

NOTES:

1. CARRIER FREQUENCY IS 1.9 KhZ BELOW THE ASSIGNED FREQUENCY.
2. COMMENTS AND SUGGESTIONS SHOULD BE DIRECTED TO:

NATIONAL WEATHER SERVICE/NOAA
NATIONAL CENTER FOR ENVIRONMENTAL PREDICTION
MARINE FORECAST BRANCH W/NMC31
5200 AUTH ROAD
CAMP SPRINGS, MD 20746-4304
PHONE: (301) 763-8000 X7401/FAX: (301) 763-8085
EMAIL: David.Feit@noaa.gov

(INFORMATION DATED Jul 20, 2004) http://weather.noaa.gov/fax/marsh.shtml

INUVIK, CANADA

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
VFA	8457.8 kHz		J3C	1 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0200	Marine Surface Analysis (Availability of charts may vary depending on shipping Ice Analysis (mid July to October 15) Amundsen Gulf, Queen Maud and McClure Strait. Ice Analysis Beaufort Sea/Alaskan Coast	120/576	1200	
1630	Marine Surface Analysis (Availability of charts may vary depending on shipping Ice Analysis (mid July to October 15) Amundsen Gulf, Queen Maud and McClure Strait. Ice Analysis Beaufort Sea/Alaskan Coast	120/576	1200	

Note: Also available on request

(INFORMATION DATED 2003) http://www.ccg-gcc.gc.ca/mcts-sctm/ramn_arnm/pacific/part_2_e.htm
(Update Mar 2002) Frequencies listed may be carrier frequencies, add 1.9 kHz for center frequency.

AIRBORNE ICE TRANSMISSIONS, CANADA

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
	4616.0 kHz	see below	F3C	
	7708.1 kHz	see below	F3C	
	6915.1 kHz	see below	F3C	

TIME	CONTENTS OF TRANSMISSION		RPM/IOC	VALID TIME	MAP AREA
H+0 to H+29	Gulf of St. Lawrence (Winter)	7708.1 kHz	120/576		
H+0 to H+29	East Newfoundland waters (Winter)	7708.1 kHz	120/576		
H+0 to H+29	Eastern Arctic (Summer)	6915.1 kHz	120/576		
H+0 to H+19	Western Arctic (Summer)	7708.1 kHz or 4616.0 kHz	120/576		

Airborne Facsimile Transmissions of observed ice conditions from ice reconnaissance aircraft schedule on days flights are flown (as soon as possible after airborne):

(a) Specific Coast Guard and aerial reconnaissance **units** will be designated by operational orders as appropriate.
(b) Frequencies are **primary** frequencies. The following alternate frequencies **(kHZ USB)** assigned to MSC/CCG for Radio
Facsimile Communications may be used as appropriate for
1) Unscheduled broadcasts to Canadian Ice Service.
2) Unscheduled aircraft tactical support.
3) Intership tactical support or when necessary due to prevailing HF propagation conditions:
3251.1, 4616.0, 6915.1 (Winter only) 8113.1, 10155.1, 10169.1, 12055.1, 13440.0, 14440.0, 15642.1, 17443.1, 18168.1, 20168.1, 20530.1.
For correct reception of these broadcasts on WMO standard facsimile recorders requiring 2300 Hz for black and 1500 Hz for white, radio receivers should be tuned in the upper sideband mode to the frequencies listed.

(INFORMATION DATED 2003http://www.ccg-gcc.gc.ca/mcts-sctm/ramn_arnm/Atlantic/part_5_e.htm

COAST GUARD ICE BREAKERS, CANADA

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
	14770 kHz	see below	F3C	

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
1630-1649	CG UNIT 1	120/576		
1650-1709	CG UNIT 2	120/576		
1710-1729	CG UNIT 3	120/576		
1730-1749	CG UNIT 4	120/576		
1750-1809	CG UNIT 5	120/576		
1810-1829	CG UNIT 6	120/576		
1830-1849	CG UNIT 7	120/576		
1910-1929	CG UNIT 9	120/576		
1850-1909	CG UNIT 8	120/576		
1930-1949	CG UNIT 10	120/576		

(a) Specific Coast Guard and aerial reconnaissance **units** will be designated by operational orders as appropriate.
(b) Frequencies are **primary** frequencies. The following alternate frequencies **(kHZ USB)** assigned to MSC/CCG for Radio
Facsimile Communications may be used as appropriate for
1) Unscheduled broadcasts to Canadian Ice Service.
2) Unscheduled aircraft tactical support.
3) Intership tactical support or when necessary due to prevailing HF propagation conditions:
3251.1, 4616.0, 6915.1 (Winter only) 8113.1, 10155.1, 10169.1, 12055.1, 13440.0, 14440.0, 15642.1, 17443.1, 18168.1, 20168.1, 20530.1.
For correct reception of these broadcasts on WMO standard facsimile recorders requiring 2300 Hz for black and 1500 Hz for white, radio receivers should be tuned in the upper sideband mode to the frequencies listed.

(INFORMATION DATED 2003) http://www.ccg-gcc.gc.ca/mcts-sctm/ramn_arnm/Atlantic/part_5_e.htm

PACIFIC OCEAN BASIN

CHARLEVILLE, AUSTRALIA

CALL SIGNS	FREQUENCIES		TIMES	EMISSION	POWER
VMC	2628	kHz	0900-1900	F3C	1 KW
VMC	5100	kHz	CONTINUOUS	F3C	1 KW
VMC	11030	kHz	CONTINUOUS	F3C	1 KW
VMC	13920	kHz	CONTINUOUS	F3C	1 KW
VMC	20469	kHz	1900-0900	F3C	1 KW

WILUNA, AUSTRALIA

CALL SIGN	FREQUENCIES		TIMES	EMISSION	POWER
VMW	5755	kHz	1100-2100	F3C	1 KW
VMW	7535	kHz	CONTINUOUS	F3C	1 KW
VMW	10555	kHz	CONTINUOUS	F3C	1 KW
VMW	15615	kHz	CONTINUOUS	F3C	1 KW
VMW	18060	kHz	2100-1100	F3C	1 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
------/1200	Australian MSLP Prog (H+36)	120/576	1200	AUST
0015/1215	VMC/VMW Schedule Page 1 of 2	120/576		
0030/1230	VMC/VMW Schedule Page 2 of 2	120/576		
0045/-------	VMC/VMW Information Notice	120/576		
0100/-------	IPS Recommended Frequencies for VMC (Charleville))	120/576		
0130/-------	IPS RECOMMENDED FREQUENCIES FOR VMW	120/576		
------/1245	Indian Ocean MSLP Prog (H+36)	120/576	1200	IO
------/1300	Australian Sigwx Prog Valid	120/576	0600	RSW
------/1315	South Pacific Ocean Total Waves (H+48)	120/576	0000	SWP
------/1330	Indian Ocean Total Waves (H+48)	120/576	0000	IO
------/1345	Pacific Ocean Sea Surface Temps (Weekly)	120/576	LATEST	SWP
------/1400	Indian Ocean Sea Surface Temps (Weekly)	120/576	LATEST	IO
0200/-------	Australian MSLP Prog (H+24)	120/576	0000	AUST
0215/-------	Australian Sigwx Prog	120/576	1800	RSW
0230/-------	Asian Current Warnings Summary	120/576	LATEST	H
------/1415	Casey Eastern and Western High Seas (H+48)	120/576	0000	
0245/1430	Australian MSLP Anal (Manual)	120/576	00/12	AUST
------/1445	Asian Current Warnings	120/576	LATEST	H
0300/1500	Australian 500 hPa Anal	120/576	00/12	AUST
0315/------	Voice Broadcast Information for VMW (Wiluna)	120/576		
------/1515	Australian MSLP Prog (H+36)	120/576	1200	AUST
0330/1530	Asian Sigwx Prog Valid	120/576	12/00	D
0400/1600	Australian 500 hPa (H+24) Prog	120/576	00/12	AUST
------/1630	IPS Recommended Frequencies for VMC (Charleville)	120/576		
------/1700	IPS Recommended Frequencies for VMW (Wiluna)	120/576		
0600/1800	Asian (Part A) Gradient Level Wind Anal (Manual)	120/576	00/12	A
0623/1823	Asian (Part B) Gradient Level Wind Anal (Manual)	120/576	00/12	B
0645/-------	Asian MSLP Anal (Manual)	120/576	0000	C
0715/1900	Australian Sigwx Prog	120/576	00/12	RSW
0730/1915	Indian Ocean MSLP Anal (Manual)	120/576	00/12	IO
0745/1930	Australian Wind Waves Ht(m) Prog	120/576	00/12	AUST
0800/1945	Australian Swell Waves Ht(m) Prog (H+24)	120/576	00/12	AUST
0815/-------	Asian Current Warnings Summary	120/576	LATEST	H
0830/-------	South Pacific Ocean MSLP Anal	120/576	0000	SWP
0845/-------	Australian MSLP Anal (Manual)	120/576	0600	AUST
------/2000	South Pacific Ocean MSLP Anal (Manual)	120/576	1200	SWP
------/2015	Casey Eastern and Western High Seas (H+24)	120/576	1200	
------/2030	Australian MSLP Anal (Manual)	120/576	1800	AUST
------/2045	Asian Current Warnings Summary	120/576	LATEST	H
0903/2100	Asian 200 hPa Streamline Anal	120/576	00/12	C
0923/2120	Asian 500 hPa Streamline Anal	120.576	00/12	C
0941/2140	Asian 700 hPa Streamline Anal	120/576	00/12	C
1000/2200	Asian Sigwx Prog	120/576	18/06	D
1015/------	Casey Eastern and Western High Seas (H+24)	120/576	0000	
------/2215	Casey Eastern and Western High Seas (H+36)	120/576	1200	
1030/2230	S.H. 500 hPa Prog (H+48)	120/576	00/12	SH
1045/2245	S.H. MSLP Prog (H+48)	120/576	00/12	SH
1100/------	Casey Eastern and Western High Seas (H+36)	120/576	0000	
1115/2300	S.H. 500 hPa Anal	120/576	00/12	SH
------/2315	Casey Eastern and Western High Seas (H+48)	120/576	1200	

CHARLEVILLE & WILUNA, AUSTRALIA

TIME TIME	CONTENTS OF TRANSMISSION AREA	RPM/IOC	VALID	MAP
1130/-------	Asian Sea Surface Temp Anal (Weekly)	120/576	LATEST	E
------/2330	Australian MSLP Prog (H+36)	120/576	0000	AUST
------/2345	Indian Ocean MSLP Prog (H+48)	120/576	1200	IO
1145/-------	VMC/VMW Information Notice	120/576		

NOTES:

1. ALL WEEKLY OCEANOGRAPHIC PRODUCTS, SUCH AS SEA SURFACE TEMPERATURE CHARTS, WHICH WERE BROADCAST ONLY ONE DAY A WEEK, ARE NOW BROADCAST EVERY DAY. HOWEVER, NOTE THE CHARTS ARE ONLY UPDATED ONCE A WEEK, BUT BROADCAST EVERY DAY UNTIL A NEW CHART IS AVAILABLE TO REPLACE THE OLD CHART.
2. FOR FURTHER INFORMATION CONTACT:

SYSTEM HELP DESK
PH: (+613) 9662 2182
FAX: (+613) 9662 1223
EMAIL: opsgen@bom.gov.au

MAP AREAS:	A:		30N - 35S, 120E - 180
	B:		30N - 35S, 070E - 130E
	C:		30N - 35S, 070E - 180
	D:		43S 110E, 34S 155E, 34N 142E, 29N 096E
	E:		23N - 23S, 100E - 170E
	H:		25N - 25S, 080E - 180
	AUST:	LAMBERT	10S 090E, 50S 080E, 10S 170E, 50S 180
	SEAUST-	MERCATOR	31S - 40S, 148E - 156E
	SWAUST	MERCATOR	25S - 37S, 110E - 120E
	RSW -	MERCATOR	0S - 50S, 100E - 180
	IO -	POLAR	10S - 90S, EQ - 090E - 180
	SWP -	POLAR	20S - 90S, 150E - 180 - 90W
	SH -	POLAR	10S - 90S, ALL LONGITUDES

(Schedule Effective ??????)
(INFORMATION DATED 2004) http://www.bom.gov.au/nmoc/rad_sch/

WELLINGTON, NEW ZEALAND

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
ZKLF	3247.4 kHz	0945-1700	F3C	5 KW
	5807 kHz	CONTINUOUS	F3C	5 KW
	9459 kHz	CONTINUOUS	F3C	5 KW
	13550.5 kHz	CONTINUOUS	F3C	5 KW
	16340.1 kHz	2145-0500	F3C	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 TIME	MAP AREA
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
0300/1600	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

(INFORMATION DATED MAY 2002) http://www.metservice.co.nz/services/radiofax_schedule.asp

HONOLULU, HAWAII, U.S.A.

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
KVM70	9982.5 kHz	1030-1630	F3C	5 KW
	11090 kHz	EXCEPT 2345-0354	F3C	5 KW
	16135 kHz	EXCEPT 1030-1630	F3C	5 KW
	23331.5 kHz	2345-0354	F3C	5 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0007/1147	PACIFIC STREAMLINE ANALYSIS	120/576	18/06	K
------/1210	48 HR SURFACE FORECAST	120/576	1200	G
0030/1230	EAST PACIFIC GOES IR SATELLITE IMAGE	120/576	LATEST	EP
0045/1245	WEST PACIFIC GOES IR SATELLITE IMAGE	120/576	LATEST	SP
0103/1304	NORTH PACIFIC SURFACE PRESSURE ANALYSIS	120/576	18/06	J
0128/1328	48HR SURFACE/1000-500MB THICKNESS FORECAST	120/576	18/06	C
0148/1350	TROPICAL SURFACE ANALYSIS	120/576	18/06	H
0209/------	24HR STREAMLINE/ISOTACH FORECAST	120/576	0000	D
0234/------	48HR STREAMLINE/ISOTACH FORECAST	120/576	0000	D
------/1412	24HR WIND/WAVE FORECAST	120/576	0000	E
------/1428	48HR WIND/WAVE FORECAST	120/576	0000	E
0258/1444	0/24 HR WIND/SEAS FORECAST (2 CHARTS)	120/576	00&00/12&12	G
0309/1503	48HR,48/72HR(2) WIND/WAVE FORECAST	120/576	00/12&12	G
0320/1522	48/72HR(2),48HR WAVE PERIOD/SWELL DIR	120/576	00&00/12	G
0331/1541	REBROADCAST OF 0103/1304	120/576	18/06	J
0354/------	72 HR SURFACE FORECAST	120/576	0000	G
------/1607	24 HR SURFACE FORECAST	120/576	1200	G
------/1618	72 HR SURFACE FORECAST	120/576	1200	G
0405/------	PACIFIC SEA STATE ANALYSIS	120/576	1800	D
0437/1630	TROPICAL CYCLONE DANGER AREA	120/576	03/15	M
0533/1733	TEST-ID-SYMBOLS-GENERAL NOTICE	120/576		
0545/1745	SIGNIFICANT CLOUD FEATURES	120/576	03/15	A
0605/1804	PACIFIC STREAMLINE ANALYSIS	120/576	00/12	K
0630/1827	EAST PACIFIC GOES IR SATELLITE IMAGE	120/576	LATEST	EP
0645/1842	WEST PACIFIC GOES IR SATELLITE IMAGE	120/576	LATEST	SP
0656/1853	NORTH PACIFIC SURFACE PRESSURE ANALYSIS	120/576	00/12	J
0721/1918	PACIFIC OCEAN SEA SURFACE TEMPS	120/576	LATEST	NPA
0741/1937	0/24 HR WIND/WAVE FORECAST (2 CHARTS)	120/576	06&06/18&18	G
0800/1956	TROPICAL SURFACE ANALYSIS	120/576	00/12	H
------/2018	SCHEDULE	120/576		
1030/2230	TROPICAL CYCLONE DANGER AREA	120/570	09/21	M
1045/------	SCHEDULE	120/576		
------/2335	24HR SURFACE FORECAST	120/576	0000	G
------/2345	48HR SURFACE FORECAST	120/576	0000	G

MAP AREAS:
A - 50N-30S, 110W-160E
C - 60N-55S, 055W-070E
D - 50N-30S, 100W-120E
E - 60N-35S, 110W-130E
F - 50N-25S, 120W-120E
G - 30N-20S, 145W-080W
H - 40N-40S, 105W-120E
J - 50N-EQ , 110W-130E
K - 30N-30S, 110W-130E
M - 30N-20S, 70W-140W
EP - 55N-40S, 110W-155E
SP - 05N-40S, 130W-165E
NPA - 55N-EQ , 010W-160E

(1)TROPICAL STREAM-FUNCTION ANALYSIS AND THE WIND/STREAM-FUNCTION FORECAST CHARTS DISPLAY 1000 MILLIBAR STREAM FUNCTION LINES. FOR SPEEDS IN KNOTS FOR ALL LATITUDES DIVIDE 50 BY THE SPACING BETWEEN THE STREAM FUNCTION LINES EXPRESSED IN DEGREES OF LATITUDE. THESE CHARTS, COMPUTER-GENERATED, ARE PARTICULARLY USEFUL IN THE TROPICS, WHERE THE ISOBARIC SPACING AND WIND-SPEED RELATIONSHIPS BECOME LESS MEANINGFUL. ARROWS ON THE STREAM-FUNCTION ANALYSIS CHARTS DEPICT VELOCITIES IN KNOTS OF THE TOPS OF LOWER CLOUDS DERIVED FROM SUCCESSIVE OBSERVATIONS BY SATELLITE. CAUTION - THESE CHARTS, BEING COMPUTER GENERATED, MAY NOT PROPERLY DELINEATE SMALL, THOUGH INTENSE, SYSTEMS IN DATA-SPARSE AREAS. NOTES ARE MANUALLY ADDED TO DIRECT ATTENTION TO SUCH SYSTEMS WHEN PRESENT.

(2)NORTH PACIFIC SURFACE PRESSURE ISOBARIC ANALYSIS CHARTS, MANUALLY ANALYZED AT THE WEATHER SERVICE FORECAST OFFICE/CENTRAL PACIFIC HURRICANE CENTER, HONOLULU DEPICT THE ISOBARIC (PRESSURE) FIELD NORTH OF 10N.

(3) PACIFIC STREAMLINE ANALYSIS DEPICTS WIND DIRECTION USING STREAMLINES. THE ANALYSIS IS PRODUCED MANUALLY AT THE FORECAST OFFICE AND COVERS THE AREA BETWEEN 30S AND 30N, BETWEEN 130E AND 120W.

(4)THE 48-HOUR ISOBARIC SURFACE/THICKNESS FORECAST CHARTS DEPICT LINES OF EQUAL PRESSURE IN MILLIBARS (SOLID LINES) AND, CHIEFLY OF INTEREST TO METEOROLOGISTS, 1000-TO-500 MILLIBAR THICKNESSES (DASHED LINES).

(5)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

(6) TROPICAL CYCLONE DANGER GRAPHIC TRANSMITTED DURING HURRICANE SEASON.

(7) RADIOFAX FREQUENCIES ARE ASSIGNED FREQUENCIES. TO CONVERT TO CARRIER FREQUENCIES, SUBTRACT 1.9 KHZ FROM THE ASSIGNED FREQUENCIES.

(8) BROADCAST MAY BE PERFORMED CONTINUOUSLY ON FOUR LISTED FREQUENCIES WHEN RESOURSES ARE AVAILABLE.

(9) TRANSMITTERS MAY BROADCAST AT 10KW AT TIMES.

(10) YOU MAY ADDRESS COMMENTS ABOUT THIS BROADCAST TO:

KVM70
National Weather Service
2525 Correa Rd.
Honolulu, HI 96822-2219
PHONE: (808) 973-5286 x237/FAX: (808) 973-5271
E-Mail W-HFO.Webmaster@noaa.gov

(INFORMATION DATED June 17, 2004) http://weather.noaa.gov/fax/hawaii.shtml

EUROPE

SKAMLEBAEK, DENMARK

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
OXT (1)	5850 kHz	0028-1005	F3C	20 KW
	9360 kHz	0003-0025		
		1008-1215	F3C	20 KW
		1243-1305		
		1828-1850		
	13855 kHz	1218-1240		
		1308-1330	F3C	20 KW
		1803-1825		
	17510 kHz	1333-1355	F3C	20 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0003(2)	ICE CHART #2 (OR #1)	120/576		
0028	ICE CHART #2 (OR #1)	120/576		
0943	ICE CHART #1	120/576		
1008	ICE CHART #1	120/576		
1153	ICE CHART #1	120/576		
1218	ICE CHART #1	120/576		
1243	ICE CHART #2 (OR#1)	120/576		
1308	ICE CHART #2 (OR #1)	120/576		
1333	ICE CHART #2 (OR #1)	120/576		
1803	ICE CHART #1	120/576		
1828	ICE CHART #1	120/576		

NOTES :(1) CALL SIGN IS TRANSMITTED FOR A PERIOD OF 2 MINUTES IMMEDIATELY PRIOR TO CHART TRANSMISSION.
(2) EITHER ONE OF CHART #2 IS TRANSMITTED IF AVAILABLE, OTHERWISE CHART #1 IS TRANSMITTED.
(3) CHART #1 COVERS THE SOUTHERN TIP OF GREENLAND. CHART #2 IS A SECTION, WHICH MAY COVER ANY AREA NORTH OF 62 DEGREES NORTH ACCORDING TO NEED AND TIME OF YEAR EITHER ON WEST OR EAST COAST OF GREENLAND.

(INFORMATION DATED Feb 10, 04) http://www.dmi.dk/dmi/index/viden/sendeplan.htm

ATHENS, GREECE

CALL SIGN	FREQUENCY	TIMES	EMISSION	POWER
SVJ4	4481 kHz		F3C	0.4 KW
SVJ4	8105 kHz		F3C	0.4KW

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	1200	B
0933	WAVE HEIGHT PROG (H+36)	120/576	1200	B
0945	WAVE HEIGHT PROG (H+42)	120/576	1200	B
0957	WAVE HEIGHT PROG (H+48)	120/576	1200	B
1009	WAVE HEIGHT PROG (H+30)	120/576	1200	C
1021	WAVE HEIGHT PROG (H+36)	120/576	1200	C
1033	WAVE HEIGHT PROG (H+42)	120/576	1200	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 (04/2001)

HAMBURG/PINNEBERG, GERMANY

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
DDH3	3855 kHz	CONTINUOUS	F1C	10 KW
DDK3	7880 kHz	CONTINUOUS	F1C	20 KW
DDK6	13882.5 kHz	CONTINUOUS	F1C	20 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
------/1206	H+96 (GSM) Sea and swell, Wind (10 m)	120/576	0000	
------/1219	Ice Chart northwesternpart atlantik	120/576	0000	
------/1232	Ice Chart Western Baltic	120/576	0000	
------/1520	Ice conditions chart West Baltic Sea or special area	120/576	0900	
------/1540	Ice conditions chart West Baltic Sea or special area	120/576	0900	
0430/1600	Surface weather chart	120/576	00/12	
0500/-------	H + 00, H + 24(GME) surface P and wind (10m)	120/576	0000	
0512/-------	h + 30 (GME) surface pressure	120/576	1800	
0525/1800	surface pressure analysis, arrows showing the movement of pressure systems, signifivant weather, ice	120/576	00/12	
0546/1821	Information of tropical storms, North Atlantic (during the season)	120/576	03/15	
0559/-------	H + 12, H + 24 (GME) 500 hPa H + T, surface P	120/576	0000	
0612/-------	H + 12, H + 24 (GME) 850 hPa H + T, 700 hPa U	120/576	0000	
0625/-------	H + 36, H + 48 (GME) 500 hPa H + T, surface P	120/576	0000	
-------/1834	H+24 (GME) surface pressure	120/576	1200	
0638/-------	H + 36, H + 48 (GME) 850 hPa H + T, 700 hPa U	120/576	0000	
-------/1847	Repetition 07.30 UTC, H+48 (GME) surface pressure	120/576	1200	
0651/-------	H + 60, H + 72 (GME) 500 hPa H + T, surface P	120/576	0000	
-------/1900	Repetition 08.04 UTC, H+72 (GME) surface pressure	120/576	1200	
0704/------	H + 60, H + 72 (GME) 850 hPa H + T, 700 hPa U	120/576	0000	
-------1912*	H + 00, H + 24(GME) surface P and wind (10m)	120/576	1200	
0717/-------	Repetition chart 05.12 UTC	120/576	1800	
0730/-------	H+48 (GME) surface pressure	120/576	0000	
0743/-------	Repetition chart 0525 UTC	120/576	0000	
0804/-------	H+72 (GME) surface pressure	120/576	0000	
0817/-------	H+96 (GME) surface pressure	120/576	0000	
0830/1924*	analysis (GME) 500 hPa, pressure	120/576	00/12	
0842/1936*	H+36, H+48 (GME) surface P and wind (10 m)	120/576	00/12	
0854/1948*	H+24 (GME) 850 hPa, 700 hPa, U	120/576	00/12	
0906/2000*	H+36 (GME) 850 hPa, 700 hPa, U	120/576	00/12	
0918/2012*	H+72, H+96 (GME) surface P and wind (10 m)	120/576	00/12	
-------/2024	H+24 (GSM) sea and swell	120/576	1200	
-------/2036	H+48 (GSM) sea and swell	120/576	1200	
-------/2048	H+72 (GSM) sea and swell	120/576	1200	
0930/------	H+24 (GSM) Sea and swell, Wind (10 m)	120/576	0000	
-------/2100	Ice conditions chart Nort-west Atlantic	120/576	1200	
-------/2115	Ice conditions chart West Baltic Sea	120/576	1500	
-------/2137	H+48 wave prediction	120/576	1200	
0943/-------	Sea surface temperature North Sea	120/576	0000	
1004/-------	H+48 (GSM) Sea and swell, Wind (10 m)	120/576	0000	
1016/-------	H+72 (GSM) Sea and swell, Wind (10 m)	120/576	0000	
1029/-------	H+48 wave prediction	120/576	0000	
1050/2200	Surface weather chart	120/576	06/18	
1111/------	Transmission schedule	120/576		
1132/------	Test chart	120/576		
1145/-------	Repetition chart 1050 utc	120/576	0600	

* Special transmissions for FS Polarstern

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 (Jun 16, 2004, effective until 02 Oct 2004)
http://www.dwd.de/de/wir/Geschaeftsfelder/Seeschifffahrt/Sendeplaene/e_faxplan.htm

ROME, ITALY

CALL SIGNS	FREQUENCIES		TIMES	EMISSION	POWER
IMB51	4777.5	kHz	CONTINUOUS	F3C	5 KW
IMB55	8146.6	kHz	CONTINUOUS	F3C	5 KW
IMB56	13597.4	kHz	CONTINUOUS	F3C	5 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0048/------	FL 390, 340, 300, 240, 180, 100, 50 SW for 12/Z di BRACKNELL	120/576		
0248/------	SW TMW FL 100.450 for 12/Z di BRACKNELL	120/576		
0345/------	SW TMW FL 100.450 FOR 12/Z (in mancanza della SW delle 02:48)	120/576		
0400/------	DP 3H 00/Z; AU 500/00Z	120/576		
0415/------	AS (ORA LEGALE) 00/Z	120/576		
0425/------	FRZL 00/Z; AU850 00/Z	120/576		
0437/------	ITALIA 03/Z	120/576		
0457/------	AS (ORA SOLARE) 00/Z	120/576		
0510/------	AU 700 00/Z; AU 300 00/Z	120/576		
0522/------	AU 200 00/Z;TMW 00/Z	120/576		
0535/------	SWL for 12/Z	120/576		
0654/------	FL 390, 340, 300, 240, 180, 100, 50 SW for 18/Z di BRACKNELL	120/576		
0848/------	SW TMW FL 100–450 for 18/Z di BRACKNEL	120/576		
0859/------	FU 500 H + 36	120/576		
0906/------	FU 500 H + 48	120/576		
0913/------	FU 500 H + 72	120/576		
0920/------	FU 500 H + 96	120/576		
0927/------	FU 500 H + 120	120/576		
1000/------	SW TMW FL 100–450 18/Z (in mancanza della SW delle 08:48)	120/576		
1030/------	FS H + 24; DP 3 HR 06/Z	120/576		
1045/------	AS 06/Z	120/576		
1140/------	SWL for 18/Z	120/576		
1153/------	STATO DEL MEDITERRANEO for 12/Z	120/576		
1200/------	ITALIA 09/Z	120/576		
1248/------	FL 390, 340, 300, 240, 180, 100, 50 SW for 18/Z di BRACKNELL	120/576		
1448/------	SW TMW FL 100–450 for 00/Z di BRACKNELL	120/576		
1555/------	SW TMW FL 100–450 for 00/Z (in mancanza della SW delle 14:48)	120/576		
1610/------	ITALIA 15/Z	120/576		
1630/------	SWL for 00/Z	120/576		
1645/------	AS 12/Z	120/576		
1700/------	DP 3HR 12/Z; AU 500/12Z	120/576		
1715/------	AU 700 12/Z; AU 300 12/Z	120/576		
1730/------	AU 200 12/Z;TMW 12/Z	120/576		
1810/------	FRZL 12/Z; AU850 12/Z	120/576		
1900/------	FL 390, 340, 300, 240, 180, 100, 50 SW for 06/Z di BRACKNELL	120/576		
2048/------	SW TMW FL 100–450 for 06/Z di BRACKNELL	120/576		
2230/------	STATO DEL MEDITERRANEO for 00/Z	120/576		
2240/------	SWL for 06/Z	120/576		
2252/------	ITALIA 21/Z	120/576		
2312/------	AS 18/Z	120/576		
2322/------	FS H + 24; DP 3 HR 18/Z	120/576		
2335/------	SW TMW FL 100–40 for 06/Z (in mancanza della SW delle 20:48)	120/576		

SW TMW: Tempo significativo + tropopausa e vento massimo;
FZRL: freezing level; SWL: tempo significativo bassi livelli;
AU: analisi in quota; FU: prevista in quota;
AS: analisi al suolo; FS: prevista al suolo,
DP: tendenza barometrica.

(Information dated 2002) http://www.marina.difesa.it/idro/documenti/avvisi/2002/15_02.zip

MOSCOW, RUSSIA

CALL SIGNS	FREQUENCIES	TIMES	EMISSION	POWER
	3830 kHz		F3C	
	5008 kHz		F3C	
	6987 kHz		F3C	
	7695 kHZ		F3C	
RCC76	10980 kHz		F3C	
	12961 kHz		F3C	
RDD78	11617 kHz		F3C	

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0003/-------	18HR SIGNIFICANT WEATHER PROG BELOW 400MB	120/576	1200	Q
------/1210	24HR 300MB PROG	120/576	0000	R
0016/-------	18HR 400MB PROG	120/576	1200	M
------/1225	24HR SIGNIFICANT WEATHER PROG	120/576	0000	R
0029/-------	30HR 200MB PROG	120/576	1200	R
-------/1240	18HR SIGNIFICANT WEATHER PROG ABOVE 400MB	120/576	0000	M
0044/-------	30HR 250MB PROG	120/576	1200	R
------/1253	18HR 300MB PROG	120/576	1800	R
0059/-------	30HR 300MB PROG	120/576	1200	R
------/1306	18HR SIGNIFICANT WEATHER PROG BELOW 400MB	120/576	0000	Q
0114/-------	30HR SIGNIFICANT WEATHER PROG	120/576	1200	R
------/1320	18HR 400MB PROG	120/576	1800	M
0129/-------	500MB ANALYSIS	120/576	1200	N
0151/1333	300MB ANALYSIS	120/576	12/00	N
-------/1355	500MB ANALYSIS	120/576	0000	N
0215/1417	SURFACE ANALYSIS	90/576	00/12	U
0245/1447	TROPOPAUSE ANALYSIS	120/576	00/12	U
0307/1509	850MB ANALYSIS	90/576	00/12	U
0337/1539	500MB ANALYSIS	90/576	00/12	U
0407/1609	1000/500MB THICKNESS ANALYSIS	90/576	00/12	U
0437/1639	SURFACE ANALYSIS	90/576	03/15	P
0513/1715	400MB ANALYSIS	90/576	00/12	U
0543/-------	24HR SURFACE PROG	120/288	0000	U
------/1745	NEPHANAL & 24HR PROG	120/576	1200	M
0555/-------	24HR/36HR 700MB PROG	120/288	00/12	U
------/1805	24HR SURFACE PROG	120/288	0000	U
0607/-------	24HR/36HR 500MB PROG	120/288	00/12	U
------/1817	30HR 200MB PROG	120/576	0600	R
0619/-------	12HR SIGNIFICANT WEATHER PROG ABOVE 400MB	120/576	1200	M
0631/-------	12HR 300MB PROG	120/576	1200	M
------/1832	30HR 250MB PROG	120/576	0600	R
0644/-------	NEPHANAL & 24HR CLOUD PROG	120/576	0000	M
------/1847	30HR 300MB PROG	120/576	0600	R
------/1902	30HR SIGNIFICANT WEATHER PROG	120/576	0600	R
0704/-------	MAX WIND ANALYSIS	120/576	0000	U
0726/1917	12HR SIGNIFICANT WEATHER PROG ABOVE 400MB	120/576	00/12	Q/M
------/1930	12HR 300MB PROG	120/576	0000	M
0739/-------	12HR 400MB PROG	120/576	1200	M
------/1943	12HR SIGNIFICANT WEATHER PROG BELOW 400MB	120/576	1200	Q
0752/-------	SURFACE ANALYSIS	90/576	0000	N
------/1956	12HR 400MB PROG	120/576	1200	M
------/2009	MAX WIND ANALYSIS	120/576	1200	U
0822/-------	SURFACE ANALYSIS	90/576	0600	U
------/2031	SURFACE ANALYSIS	90/576	1800	U
0852/-------	200MB ANALYSIS	90/576	0000	U
------/2101	SURFACE ANALYSIS	90/576	1200	N
0922/-------	24HR/36HR 850MB PROG	120/576	00/12	U
------/2131	200MB ANALYSIS	90/576	1200	U
0934/-------	36HR SURFACE PROG	120/288	0000	U
0946/-------	1000MB & 500MB ANALYSIS	90/576	1200	X
------/2201	24HR 200MB PROG	120/576	1200	R
1013/-------	48HR/72HR/96HR/120HR/144HR SURFACE GRID DATA	90/576	1200	X
------/2216	24HR 250MB PROG	120/576	1200	R

MOSCOW, RUSSIA

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
------/2231	24HR 300MB PROG	120/576	1200	R
1040/2246	SURFACE ANALYSIS	90/576	09/21	P
1116/-------	TECHNICAL STOP			
------/2322	24HR SIGNIFICANT WEATHER PROG	120/576	1200	R
------/2337	18HR SIGNIFICANT WEATHER PROIG ABOVE 400MB	120/576	1200	M
1140/------	24HR 200MB PROG	120/576	0000	R
------/2350	18HR 300MB PROG	120/576	0600	M
1155/-------	24HR 250MB PROG	120/576	0000	R

MAP AREAS:

M	-	1:15,000,000	56N	018W,	58N	108E,	30N	016W,	32N	072E	
N	-	1:30,000,000	03N	097W,	03S	027W,	EQ	142E,	05S	077E	
P	-	1:05,000,000	67N	002E,	42N	028E,	74N	061E,	44N	055E	
Q	-	1:07,500,000	61N	010E,	43N	022E,	61N	071E,	43N	059E	
R	-	1:30,000,000	39N	066W,	08N	014E,	18N	149E,	02S	088E	
U	-	1:20,000,000	32N	051W,	15N	014E,	32N	167E,	16N	103E	
X	-	1:30,000,000	NORTHERN HEMISPHERE 90N - 20N								

(INFORMATION DATED 11/1996)
(Update 3/2001) - Frequencies reported as 53.8, 10611 and 13886 kHz and also 5108 and 6890 kHz at irregular times.
(Update 3/2002) - Frequencies reported as 4318, 5108, 6890(night), 10611 and 13886 (night)
(Update 3/2002) - All broadcasts reported as 120/576 or 120/288 mode. 60 or 90 rpm is no longer used.

MURMANSK, RUSSIA

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
RBW 41	5336 kHz		F3C	
	6445.5 kHz	CONTINUOUS	F3C	
	7908.8 kHz	1900-0600	F3C	
RBW48	10130 kHz	0600-1900	F3C	

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.

NORTHWOOD, UNITED KINGDOM

CALL SIGNS	FREQUENCIES		TIMES	EMISSION	POWER
GYA	2618.5	kHz	At least 2 freq in use at any time	F3C	10 KW
GYA	4610	kHz	At least 2 freq in use at any time	F3C	10 KW
GYA	8040	kHz	At least 2 freq in use at any time	F3C	10 KW
GYA	11086.5	kHz	At least 2 freq in use at any time	F3C	10 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0000/1200	Analysis	120/576	18/06	
0012/1212	Prog 24	120/576	18/06	
0024/1224	Prog 24 Wind/Pptn	120/576	18/06	
0036/1236	Prog 24 Td/SST diff	120/576	18/06	
0048/1248	Ship Ice Accretion	120/576	12/00	
0100/1300	Main schedule	120/576		
0112/1312	QSL	120/576		
0024/1324	Auxiliary schedule	120/576		
0036/1336	Front and Eddies	120/576	00/00	
0236/1436	Analysis	120/576	00/12	
0300/1500	Analysis	120/576	00/12	
0336/1536	SST	120/576		
0348/1548	Gale Warning summary	120/576	04/16	
0400/1600	Analysis	120/576	00/12	
0412/1612	Prog 24	120/576	00/12	
0424/1624	Prog 24 Wind/Pptn	120/576	00/12	
0436/1636	Prog 24 Td/SST diff	120/576	00/12	
0448/1648	SCEXA TAFS	120/576	06/18	
0500/1700	Analysis	120/576	00/12	
0512/1712	Prog 24	120/576	00/12	
0524/1724	Prog 48	120/576	00/12	
0536/1736	SCEXA TAFS	120/576	06/18	
0548/1748	Gale Warning summary	120/576	06/18	
0600/1800	Analysis	120/576	00/12	
0612/1812	Prog 24	120/576	00/12	
0648/1848	SCEXA TAFS	120/576	07/19	
0700/1900	Spare TAFS	120/576	06/07/12/13	
0712/1912	850Mb WBPT prog 24	120/576	00/12	
0724/1924	Prog 48	120/576	00/12	
0736/1936	Prog 72	120/576	00/12	
0748/1948	Prog 96	120/576	00/12	
0800/2000	Prog 120	120/576	00/12	
0812/2012	Thickness/GPH Anal	120/576	00/12	
0824/2024	Sig Winds Countour 48	120/576	00/12	
0836/2036	Sig Winds Countour 72	120/576	00/12	
0848/2048	Sig Winds Countour 96	120/576	00/12	
0900/2100	Analysis	120/576	06/18	
0912/2112	Thickness/GPH Anal	120/576	00/12	
0924/2124	Thickness/GPH Prog 24	120/576	00/12	
0936/2136	850 winds 24	120/576	00/12	
0948/2148	700 winds 24	120/576	00/12	
1000/2200	Analysis	120/576	06/18	
1012/2212	Prog 24	120/576	06/18	
1024/2224	Reduced Vis Prog 24	120/576	06/18	
1036/2236	Prog 24 Wind/Pptn	120/576	06/18	
1048/2248	Prog 24 Td/SST diff	120/576	06/18	
1100/2300	Analysis	120/576	06/18	
1112/2312	Prog 24	120/576	06/18	
1124/2324	Sea and Swell Prog 24	120/576	06/18	
1136/2336	Thickness/GPH Prog 24	120/576	00/12	
1148/2348	Gale Warning summary			

(INFORMATION DATED 20 MAY 2004)

ANTARTICA

CASEY, ANTARCTICA

CALL SIGN	FREQUENCIES	TIMES	EMISSION	POWER
VLM	7470 kHz	CONTINUOUS	F3C	1 KW

TIME	CONTENTS OF TRANSMISSION	RPM/IOC	VALID TIME	MAP AREA
0000/1200	48Hr Mean Sea Level Prognosis	120/576	12/00	
0020/1220	48Hr Surface Wind Forecast	120/576	12/00	
0040/1240	48Hr Total Wave Height Forecast	120/576	12/00	
0100/1300	60Hr Mean Sea Level Prognosis	120/576	00/12	
0200/0320	72Hr Mean Sea Level Prognosis	120/576	12/00	
0700/------	BROADCAST SCHEDULE	120/576		
------/1900	SEA SURFACE TEMPS	120/576	WEEKLY	
0800/2000	NMOC Manual Surface Analysis	120/576	00/12	
1000/2200	24Hr Mean Sea Level Prognosis	120/576	00/12	
1020/2220	24Hr Surface Wind Forecast	120/576	00/12	
1040/2240	24Hr Total Wave Height Forecast	120/576	00/12	
1100/2300	36Hr Mean Sea Level Prognosis	120/576	12/00	
1120/2320	36Hr Surface Wind Forecast	120/576	12/00	
1140/2340	36Hr Total Wave Height Forecast	120/576	12/00	

NOTES: COMMENTS OR SUGGESTIONS MAY BE FORWARDED TO:

STEVE PENDLEBURY
s.pendlebury@bom.gov.au
Phone: +61 3 62212021, FAX +61 3 62212080
GPO BOX 727G
Hobart, Tasmania 7001, Australia

(INFORMATION DATED 2004) http://www.bom.gov.au/nmoc/rad_sch/vlm_sched.shtml

APPENDICIES

NATIONAL WEATHER SERVICE MARINE PRODUCTS VIA INTERNET INCLUDING RADIOFAX

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.

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.

The **Marine Product Dissemination Information 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. The webpage may be found at:

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

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). Of specific interest to mariners are **NWS Marine Text Forecasts and Products** (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 (http://www.nws.noaa.gov/om/marine/marine_map.htm).

Marine Graphic Forecasts and Products

Graphic marine forecasts are produced by NWS for broadcast via radiofax and also made available via the Internet at Marine Radiofax Charts (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. A limited number of graphics using these data are available via the Internet on an experimental basis. See http://www.nws.noaa.gov/om/marine/newsgridded.htm

Also see **Computer Generated Model Guidance** below.

Satellite and RADAR Imagery

Satellite imagery may be found on the **GOES webpage** (http://www.goes.noaa.gov/) and is also available from **NASA** (http://rsd.gsfc.nasa.gov/goes/). Ocean surface winds and other data derived from polar orbiting and geostationary satellites may be found **on NOAA's Marine Observing Systems Team Homepage** (http://manati.wwb.noaa.gov/doc/oppt.html) and **NOAA's Coastwatch Homepage**. (http://sgiot2.wwb.noaa.gov/COASTWATCH/). Information and links to Sea Surface **Temperature Charts and Gulf Stream charts** may be found on our **FAQ webpage** (http://www.nws.noaa.gov/om/marine/faq.htm). **NEXRAD Doppler Radar images** (http://weather.noaa.gov/radar/mosaic/DS.p19r0/ar.us.conus.shtml) are available on the Internet on the **NWS Homepage** (http://www.nws.noaa.gov) and **local NWS Forecast Offices homepages** (http://www.nws.noaa.gov/om/marinr/marine_map.htm). NEXRAD Doppler Radar images may also be found on local cable channels and the Internet webpages of local media including TV stations, radio stations and newspapers as well as others

Ice Analyses, Forecasts and Iceberg Reports

Ice analyses, forecasts and iceberg reports are available from the **National Ice Center** (http://www.natice.noaa.gov/) and the U.S. Coast Guard's **International Ice Patrol** (http://www.uscg.mil/lantarea/iip/home.html) , and local NWS marine forecast offices in areas such as Alaska where ice is a concern. Ice forecasts and observations are also made available as radiofax, text products and computer generated model guidance.

Computer Generated Model Guidance
Computer generated model guidance products used by marine forecasters is available from the **Ocean Modeling Branch** (http://polar.wwb.noaa.gov/), the **Environmental Modeling Center** (http://www.emc.ncep.noaa.gov/), the **National Ocean Services's Chesapeake Bay Operational Forecast System** (http://co-ops.nos.noaa.gov/CBOFS/cbofs.shtml), and the **Great Lakes Forecasting System** (http://superior.eng.ohio-state.edu/"). The **Weather Charts webpage** (http://weather.noaa.gov/fax/graph.shtml) contains charts, intended as guidance to forecasters, which can prove of value to mariners. 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.

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.

Marine Climatolgical Information
User-friendly climatological information for marine coastal areas may be found in **Appendix T of the National Ocean Service's Coast Pilot's, volumes 1-9** (http://chartmaker.ncd.noaa.gov:80/nsd/cpdownload.htm). These appendices, which were prepared by the **National Climatic Data Center** (http://lwf.ncdc.noaa.gov/oa/ncdc.html), also contain other useful meteorological information such as conversion tables. Visit their webpage for further information.

Foreign Marine Forecasts
Links to **foreign meteorological services** (http://www.wmo.ch/web-en/member.html) are available courtesy of the **World Meteorological Organization (WMO)** (http://www.wmo.ch).
The WMO also provides **links to marine webpages for member countries** http://www.wmo.ch/web/aom/marprog/links.html).

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

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 webpage** (http://www.ndbc.noaa.gov). Real time meteorological and oceanographic observations for several sites are also available from **the Physical Oceanographic Real-Time System (Ports)** (http://coops.nos.noaa.gov/d_ports.html). PORTS is a program of the U.S. **National Ocean Service** (http://www.nos.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 webages of local NWS Forecast Offices. 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/). A variety of marine observations may be viewed on the **National Ocean Service's nowCOAST WEb Portal(BETA)**, (http://chartmaker.ncd.noaa.gov/csdl/op/nowcoast.htm).

NOAA's Forecast Systems Laboratory (FSL) offers a Display of Surface Data (http://www-frd.fsl.noaa.gov/mesonet/) from several government, commercial and voluntarily operated mesonets as well as observations of those of the Volunatary Observing Ship (VOS) Program and data buoys. Among these mesonets, are **observing systems at several U.S. Coast Guard stations** (http://uscg.instaweather.com/) as part of the **Homeland Security WeatherNet Network** (http://www.aws.com/aws_2001/homeland/index.html) which is a public-private partnership between **AWS Convergence Technologies** (http://www.aws.com/aws_2001/default.asp) and NWS. A variety of marine observations may also be viewed on the **National Ocean Service's BETA nowCOAST Web Portal** (http://chartmaker.ncd.noaa.gov/csdl/op/nowcoast.htm).

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.

http://www.ndbc.noaa.gov/mini_station_page.phtml?station=44017

Tide Predictions, Observations and Storm Surge Forecasts
Near real-time **Water Level Observations, and Predicted Tide Information** http://www.co-ops.nos.noaa.gov) for the calendar year are available from the **National Ocean Service** (http://www.nos.noaa.gov). Read the **NOS Tides FAQ** (http://www.co-ops.nos.noaa.gov/faq1.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 National Weather Service's Cleveland Forecast Office makes available a series of **experimental Great Lakes Water Levels Graphs** (http://marine.wcle.noaa.gov/levels.html), using National Ocean Service data, intended to be low-speed-connection-friendly for Internet access by vessels afloat.

Experimental, computer generated, **Extratropical Water Level Forecasts** (www.nws.noaa.gov/tdl/etsurge) are available from the National Weather Service's **Meteorological Development Laboratory** (www.nws.noaa.gov/tdl/). Status maps are provided to give the user a quick overview of a region. Forecasts of storm surge produced as a result of a tropical storm or hurricane are available from **your local NWS Forecast Office** (www.nws.noaa.gov/om/marine/marine_map.htm).

The **National Ocean Service's Chesapeake Bay Operational Forecast System** (http://co-ops.nos.noaa.gov/CBOFS/cbofs.shtml) has been created by NOS to provide the maritime community with improved short-term predictions of water level in the Chesapeake Bay. *Please be advised that these predictions are based on a hydrodynamic model and, as such, should be considered as computer-generated forec*ast guidance.

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).

Voluntary Observations from Mariners
All NWS marine forecasts rely heavily on the **Voluntary Observing Ship (VOS)** program (http://www.vos.noaa.gov/) for obtaining meteorological observations. Ship observations may also be found on the **National Data Buoy Center - Observations Search** (http://www.ndbc.noaa.gov/obs_search.shtml), **National Data Buoy Center - Ships Observation Report** (http://www.ndbc.noaa.gov/ship_obs.phtml), **NOAA's Forecast Systems Laboratory (choose maritime)** (http://www-frd.fsl.noaa.gov/mesonet/), **Penn State** http://www.ems.psu.edu/cgi-bin/wx/offshore.cgi**)**, **Oceanweather** (http://www.oceanweather.com/data/index.html) and **Great Lakes Ship Locations** (http://reef.atmos.colostate.edu/drummond/)

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) which are of benefit to the marine community. See: http://www.nws.noaa.gov/om/marine/voluntary.htm

Marine Webpages
The Internet contains a great number of webpages of interest to the mariner. Visit **our Links webpage** (http://www.nws.noaa.gov/om/marine/mlinks.htm) for a listing of recommended webpages pertaining to Marine Weather. The **U.S. Coast Guard Maritime Telecommunications**

Information webpage (http://www.navcen.uscg.gov/marcomms) 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 Mariners Weather Log Magazine, and our listing of Worldwide Marine Radiofacsimile Broadcast Schedules (this publication).

Internet Access for Mariners

Internet at sea can be problematic unless you stay within cellular telephone range of shore. Internet access using cellular technology is technically challenging and potentially frustrating as well. Terrestrial wireless Internet services such as those provided by **GoAmerica** (www.goamerica.net), **Palm.Net** (http://www.palm.com/products/palmvii/wireless.html)**, OmniSky** (www.omnisky.com/), **TeleSea** (http://www.teleseawireless.net//), **Motient** (http://www.motient.com/), **eHarbor** (www.eharbor.org) and **AlwaysOnline.net** (www.alwaysonline.net) are beginning to become available, however, these provide limited maritime coverage. These companies may employ "Marine WIFI" technology which is rapidly becoming popular at marinas and in favorite harbor areas.Satellite services including **Inmarsat** (www.inmarsat.org), **Iridium** (www.iridium.com/), **Globalstar** (www.globalstarusa.com), **Thuraya** (www.thuraya.com), **Emsat** (www.eutelsat.com/products/2_4_2.html), **AceS** (www.acesinternational.com/), **tracNet/DirecPC** (www.kvh.com/MarineSat/index.asp?flash=yes), **Mobile Satellite Ventures** (www.tmi.ca), **Boatracs** (www.boatracs.com, **Orbcomm** (www.orbcomm.com), **Digital Seas International**(http://www.mtnsat.com/digitalseas.htm), and **MTN** (www.mtnsat.com) are available, however, costs are generally greater.

Several companies offer e-mail services designed to optimize satellite connectivity including **MAILASAIL** (http://www.mailasail.com/), **MarineNet** (http://www.marinenet.net/), **Telaurus** (http://www.telaurus.net/) and **UUPLUS** (http://www.uuplus.com/). 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 direct 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. Visit http://www.faqs.org/faqs/internet-services/access-via-email/ 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.

E-mail access is available offshore if you have an HF marine radio from companies such as **Sailmail** (www.sailmail.com), **SeaMail** (www.seamail.org), , **CruiseEmail** (www.cruiseemail.com/index.html), **MarineNet** (www.marinenet.net), **Kielradio** (www.kielradio.de/GB/Start_GB.htm), **Globe Wireless** (www.globewireless.com), **Mobile Marine Radio Network-WLO** (www.wloradio.com). and **The Message Center** (http://world.std.com/~msgctr/). E-mail can be accomplished at no cost using **amateur radio** (http://www.nws.noaa.gov/om/marine/ham.htm).

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 are by voice where there is always the possibility of misunderstanding. Visit http://www.nhc.noaa.gov/aboutwap.html where you will find NHC/TPC's wireless web page. There you can find the link to obtain NHC/TPC's most popular hurricane products using your own Internet-ready phone, or use one of simulators for which a link is provided. Also visit the Miami Forecast Office's Wireless Access Page (http://www.srh.noaa.gov/mia/newpage/cgi-bin/master.pl?suite=wireless)

A number of Cellular service providers are beginning to offer value-added Internet-like services which provide access to NOAA tide data, marine forecasts, and other items of interest to the wireless customer. These require a digital phone with some of the more advanced features. See your Cellular service provider for details. There may be a nominal fee required for using these services. Examples of specific interest to the mariner include Ekkosoft's "SaltWater Tides" and "MarineWeather with marine411" (http://www.ekkosoft.com/)

A Palm Query application named MarineWX for PALM compatible PDA's is now available to obtain the most popular NWS marine text forecasts. This software requires that your Palm be directly connected to the Internet using a Palm Modem, interconnection to your cellular telephone, etc. See: http://www.nws.noaa.gov/om/marine/internet.htm#palm

National Weather Service Products Available Via E-MAIL (FTPMAIL)

National Weather Service marine text forecasts and radiofax charts are available via e-mail. Further, FTPMAIL may be used to acquire any file on a *.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 KBytes), or visit http://weather.noaa.gov/pub/fax/ftpmail.txt.

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

The FTPMAIL “help”, command and product index files are included in Appendix B of this document for convenience. Be certain to occasionally download these files to make certain you have the latest versions available.

An FAQ webpage describing several public and commercial FTP-to-EMAIL and WWW-to-EMAIL servers may be found at:

http://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

National Hurricane Center Listserver

The National Hurricane Center operates an e-mail listserver which is special interest to mariners who do not have direct access to the World Wide Web but who are equipped with an e-mail system. This listserver provides an automated means to receive NWS hurricane forecast products via e-mail. However, performance may vary and receipt cannot be guaranteed. This is an experimental service. Interruptions or duplications in e-mail deliveries while we test the system are to be expected. Notices will be sent if any extended interruptions are encountered. See **instructions on using the NHC listserver** (http://www.nhc.noaa.gov/signup.html).

University of Illinois Listserver
The University of Illinois at Urbana-Champaign operates an **e-mail listserver** (http://ralph.centerone.com/wxlist/) 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 forecast products via e-mail. However, performance may vary and receipt cannot be guaranteed. For **instructions on using the UIUC listserver** visit http://weather.noaa.gov/pub/fax/uiuclist.txt.

Internet Broadcasts
Marine weather data may also be obtained via the Internet using **EMWIN** (http://www.nws.noaa.gov/om/marine/emwin.htm). As part of the **New NOAA Weather Wire Service** (http://www.nws.noaa.gov/om/marine/wxwire.htm). **DynCorp** (http://dynis.is.dyncorp.com/contracts/nwws/index.html) broadcasts the entire Weather Wire product stream on the Internet as a commercial service.

Change Notices
For details on changes to NWS products, visit the Office of Climate, Water, and Weather Services Service Change Notifications (http://www.nws.noaa.gov/om/notif.htm), the **Data Product Change Management Database** (http://www.nws.noaa.gov/oso/oso1/oso11/oso112/drg/drgrptc.htm) and **Systems Operations Center Change Notices** (http://www.nws.noaa.gov/oso/notices/notices.shtml).

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://weather.noaa.gov/data/forecasts/marine/
http://weather.noaa.gov/pub/data/raw/
ftp://weather.noaa.gov/data/raw/
http://iwin.nws.noaa.gov/pub/data/text/
ftp://iwin.nws.noaa.gov/data/text/
http://iwin2.nws.noaa.gov/pub/data/text/
ftp://iwin2.nws.noaa.gov/data/text/
http://www.ndbc.noaa.gov/data/Forecasts/
http://asp1.sbs.ohio-state.edu/text/marine/

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://weather.noaa.gov/fax/
http://www.opc.ncep.noaa.gov/shtml/

NATIONAL WEATHER SERVICE INTERNET SITES

NWS Homepage	http://www.nws.noaa.gov
NWS Marine Forecasts	http://www.nws.noaa.gov/om/marine/home.htm
NWS Marine Text Products	http://www.nws.noaa.gov/om/marine/home.htm#text
NWS Marine Radiofax Products	http://www.nws.noaa.gov/fax/marine.shtml
NWS Voluntary Observing Ship Program	http://www.vos.noaa.gov
AMVER/SEAS Homepage	http://seas.amverseas.noaa.gov/seas/

U.S. NAVY AND OTHER WEATHER INTERNET SITES

See these sites for further links

Naval Oceanographic Office	http://www.navo.navy.mil
Navy Fleet Numerical	http://www.fnmoc.navy.mil
International Ice patrol	http://www.uscg.mil/lantarea/iip/home.html
National Ice Center	http://www.natice.noaa.gov
WMO Homepage	http://www.wmo.ch
JCOMM GMDSS	http://weather.gmdss.org/
USCG Maritime Telecommunications	http://www.navcen.uscg.gov/marcomms

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 Help contact:
*
*   Timothy.Rulon@noaa.gov   301-713-1677 x 128
*   Clifford.Fridlind@noaa.gov   301-713-0882 x 122
*

**** NEW USERS....Read these notes on CAPITALIZATION *****

CORRECT CAPITALIZATION FOR COMMANDS, DIRECTORY AND FILE
NAMES IS CRITICAL. FOLLOW THE EXAMPLES CLOSELY.

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

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 familar 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.html

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 any *.noaa.gov Internet FTP server is
accessible using the FTPMAIL server.

To use FTPMAIL, the user sends a small script file via e-mail to
NWS requesting the desired file(s). An error message will be
returned if the script file is in error.

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.
See your system administrator if you have any questions on this
topic. The UUencoding process can add 0 to >100% overhead
depending on your system and the type of file.

Files sizes for NWS radiofax graphic files average 35KB but can

be much greater. 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:
o Send an e-mail via the Internet to: ftpmail@weather.noaa.gov
o Put anything you like on the subject line
o 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 (weather.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 (weather.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 (weather.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 (weather.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)


reply-to captain.kidd@noaa.gov
open
dir
quit

     Connect to default_site (weather.noaa.gov) and send back the
     contents of the top level directory to captain.kidd@noaa.gov


open www.ndbc.noaa.gov
cd data
cd latest_obs
get 42007.txt
get gdil1.txt
quit

     Connect to the National Data Buoy Center's FTP server and send
     back the latest observations for buoy #42007 and C-MAN station
     GDIL1


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 marine1.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 buoydata.txt    (Buoy and C-MAN data directory)
get robots.txt      (Marine forecasts via e-mail systems)
quit

     Connect to default_site (weather.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.
Be aware that several NWS products share WMO headers so the desired
forecast may be overwritten at times by another product.
```

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

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject Line:           Put anything you like
Body:                   open iwin.nws.noaa.gov
                        cd data
                        cd text
                        cd FZNT01
                        get KWBC.TXT
                        quit
```

or

```
Send an e-mail to:      ftpmail@weather.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**********

CORRECT CAPITALIZATION FOR COMMANDS, DIRECTORY AND FILE
NAMES IS CRITICAL. 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.

Problems have recently been reported by users of Hotmail. If you are
a Hotmail user and are using the system successfully, please notify
us of and your experiences and any workarounds you may have developed.

If you restrict incoming e-mail as a means of preventing spam, you
must program your e-mail system to allow messages from:
ftpmail@tgsv22.nws.noaa.gov, ftpmail@tgsv23.nws.noaa.gov,
ftpmail@tgsv24.nws.noaa.gov, ftpmail@tgsv25.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. We are working to develop
a version of FTPMAIL which parses these control characters.

Also be certain that each of your commands is not followed by any trailing
space(s) or you will 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.

****

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

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 free service which is similar in concept to FTPMAIL and also allows
retrieval of NWS marine GRIB files, simple webpages, and products to be
retrieved on a scheduled, recurring basis may be found at: www.saildocs.com
or send a blank email to: info@saildocs.com

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.

Author: Timothy Rulon, Marine and Coastal Weather Services Branch W/OS21
        National Weather Service
        Last Modified April 01, 2004
        Document URL: http://weather.noaa.gov/pub/fax/ftpmail.txt
                      ftp://weather.noaa.gov/fax/ftpmail.txt

FTPMAIL commands for ftpmail@weather.noaa.gov FTPMAIL server

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:
o Send an E-mail via the Internet to ftpmail@weather.noaa.gov
o Put anything you like on the subject line
o 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 (weather.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 (weather.noaa.gov) and send back the
     chart file PWAG01.TIF to e-mail address of requestor

>>Valid commands to the ftpmail gateway are:

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
btoa                        converting a binary file before emailing.
                              (Default is uuencode.)

force uuencode          Force all files or directory listings to
force btoa                 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|mime]
                          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
mode ascii                command.  Defaults to binary.

quit                      End of input - ignore any following lines.
```

Author: Timothy Rulon, Office of Meteorology, National Weather Service
Last Modified August 01, 2003
Document URL: http://weather.noaa.gov/pub/fax/ftpcmd.txt
ftp://weather.noaa.gov/fax/ftpcmd.txt

Suggested TIFF Viewers

The (G4)/TIFF format is used because the facsimile charts are in BLACK & WHITE and other encoding formats generate significantly larger files. The suggested TIFF viewers listed here are to help in your selection and have been found to work in viewing these charts in past testing. The viewers and sources listed imply no endorsement by the NWS.

Commercial Viewers for DOS/Windows 3.1

HyperFax.111 by Hypersoft	(603) 356-0210
Viewdirector by TMS, Inc.	(800) 944-7654
Imagehandler by LeadTools	(800) 637-4699
Keyview by FTP Software	(800) 242-4FTP
Snowview Platinum by Snowbound Software	(617) 630-9495

Shareware viewers for DOS/Windows 3.1

Paint Shop Pro 3.0 by Jasc, Inc. (612) 930-9171
Graphic Workshop v1.1p
VIDVUE v1.1 by L. Gozum
QuickView v1.2e (limited - can't rotate)

Shareware viewers for OS/2

PMJPEG
PMView v0.9

Shareware viewer for Apple/MAC

GraphicConverter 2.6

Author: Timothy Rulon, Office of Meteorology, National Weather Service
Last Modified Tuesday, 14-JAN-97, 10:17:34
Document URL: http://tgsv5.nws.noaa.gov/pub/fax/rfaxtif.txt

NATIONAL WEATHER SERVICE RADIOFAX PRODUCTS
for the Western Atlantic Ocean

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. These charts may be found in directory: ftp://weather.noaa.gov/fax or http://weather.noaa.gov/pub/fax

.TIF files now also available as .gif files

WIND/SEAS CHARTS	FILE NAME
12Z Sea State Analysis, 10E-95W Northern Hemisphere	PJAA99.TIF
00Z Sea State Analysis, 45W-85W Northern Hemisphere	PWAA88.TIF
12Z Sea State Analysis, 45W-85W Northern Hemisphere	PWAA89.TIF
Sea State Analysis, (Most Current)	PWAA90.TIF
24HR Wind/Wave Chart VT00Z Forecast 45W-85W N. Hemisphere	PWAE98.TIF
24HR Wind/Wave Chart VT12Z Forecast 45W-85W N. Hemisphere	PWAE99.TIF
24HR Wind/Wave Chart Forecast (Most Current)	PWAE10.TIF
48HR Wind/Wave VT00Z Forecast 10E-95W Northern Hemisphere	PJAI98.TIF
48HR Wind/Wave VT12Z Forecast 10E-95W Northern Hemisphere	PJAI99.TIF
48HR Wind/Wave Chart Forecast (Most Current)	PJAI10.TIF
48HR Wave Period VT00Z Forecast 10E-95W Northern Hemisphere	PJAI88.TIF
48HR Wave Period VT12Z Forecast 10E-95W Northern Hemisphere	PJAI89.TIF
48HR Wave Period Chart Forecast (Most Current)	PJAI20.TIF
96HR Wind/Wave Chart VT12Z Forecast 10E-95W N. Hemisphere	PJAM98.TIF
96HR Wave Period VT12Z Forecast 10E-95W N. Hemisphere	PJAM88.TIF
SURFACE CHARTS	
00Z Preliminary Surface Chart Analysis 45W-85W N. Hemisphere	PYAA10.TIF
06Z Preliminary Surface Chart Analysis 45W-85W N. Hemisphere	PYAB01.TIF
12Z Preliminary Surface Chart Analysis 45W-85W N. Hemisphere	PYAC01.TIF
18Z Preliminary Surface Chart Analysis 45W-85W N. Hemisphere	PYAD01.TIF
Preliminary Surface Chart Analysis (Most Current)	PYAD10.TIF
00Z Surface Analysis Chart, Part 1, 10E-45W N. Hemisphere	PYAA01.TIF
00Z Surface Analysis Chart, Part 2, 40W-95W N. Hemisphere	PYAA02.TIF
06Z Surface Analysis Chart, Part 1, 10E-45W N. Hemisphere	PYAA03.TIF
06Z Surface Analysis Chart, Part 2, 40W-95W N. Hemisphere	PYAA04.TIF
12Z Surface Analysis Chart, Part 1, 10E-45W N. Hemisphere	PYAA05.TIF
12Z Surface Analysis Chart, Part 2, 40W-95W N. Hemisphere	PYAA06.TIF
18Z Surface Analysis Chart, Part 1, 10E-45W N. Hemisphere	PYAA07.TIF
18Z Surface Analysis Chart, Part 2, 40W-95W N. Hemisphere	PYAA08.TIF
Surface Analysis Chart, Part 1, (Most Current)	PYAA11.TIF
Surface Analysis Chart, Part 2, (Most Current)	PYAA12.TIF
24HR Surface Chart VT00Z Forecast 45W-85W Northern Hemisphere	PPAE00.TIF
24HR Surface Chart VT12Z Forecast 45W-85W Northern Hemisphere	PPAE01.TIF
24HR Surface Chart Forecast (Most Current)	PPAE10.TIF
48HR Surface Chart VT00Z Forecast 10E-95W Northern Hemisphere	QDTM85.TIF
48HR Surface Chart VT12Z Forecast 10E-95W Northern Hemisphere	QDTM86.TIF
48HR Surface Chart Forecast (Most Current)	QDTM10.TIF
96HR Surface Chart VT12Z Forecast 10E-95W Northern Hemisphere	PWAM99.TIF

UPPER AIR CHARTS

00Z 500MB Surface Chart Analysis 10E-95W Northern Hemisphere	PPAA50.TIF
12Z 500MB Surface Chart Analysis 10E-95W Northern Hemisphere	PPAA51.TIF
500MB Surface Chart Analysis (Most Current)	PPAA10.TIF
24HR 500MB Chart VT00Z Forecast 45W-85W Northern Hemisphere	PPAE50.TIF
24HR 500MB Chart VT12Z Forecast 45W-85W Northern Hemisphere	PPAE51.TIF
24HR 500MB Chart Forecast (Most Current)	PPAE11.TIF
36HR 500MB Chart VT00Z Forecast 10E-95W Northern Hemisphere	PPAG50.TIF
36HR 500MB Chart VT12Z Forecast 10E-95W Northern Hemisphere	PPAG51.TIF
36HR 500MB Chart Forecast (Most Current)	PPAG11.TIF
48HR 500MB Chart VT00Z Forecast 10E-95W Northern Hemisphere	PPAI50.TIF
48HR 500MB Chart VT12Z Forecast 10E-95W Northern Hemisphere	PPAI51.TIF
48HR 500MB Chart Forecast (Most Current)	PPAI10.TIF
96HR 500MB Chart VT12Z Forecast 10E-95W Northern Hemisphere	PPAM50.TIF

SATELLITE IMAGERY

00Z GOES Infrared	evnt00.jpg
06Z GOES Infrared	evnt06.jpg
12Z GOES Infrared	evnt12.jpg
18Z GOES Infrared	evnt18.jpg
GOES Infrared (Most Current)	evnt99.jpg

ICE CHARTS

Ice Chart (When Available)	PIEA88.TIF

(Ice chart normally not available on this server 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.TIF
Internet File Names (This file)	rfaxatl.txt

Further information see: http://www.nws.noaa.gov/om/marine/home.htm

Author: Timothy Rulon, Office of Marine and Coastal Services W/OS21,
National Weather Service
Last Modified Jul 07, 2004
Document URL: http://weather.noaa.gov/pub/fax/rfaxatl.txt
ftp://weather.noaa.gov/fax/rfaxatl.txt

NATIONAL WEATHER SERVICE RADIOFAX PRODUCTS
for the Eastern Pacific Ocean

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

Assigned frequencies 4346, 8682, 12590.5, 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.

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://weather.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.

PAY ATTENTION TO CAPITALIZATION:

Example using FTPMAIL:

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject line:           Put anything you like
Body:                   open
                        cd fax
                        get PWBE10.TIF
                        get PWBM99.gif
                        quit
```

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

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject Line:           Put anything you like
Body:                   help
```

WIND/WAVE CHARTS	FILE NAME
00Z Sea State Analysis 20N-70N, 115W-135E	PJBA99.TIF
@00Z Sea State Analysis 25N-60N, E OF 155W	PWBA88.TIF
12Z Sea State Analysis 25N-60N, E OF 155W	PWBA89.TIF
Sea State Analysis 25N-60N, E OF 155W (Most Current)	PWBA90.TIF
24HR Wind/Wave Forecast VT00Z 25N-60N, E of 155W	PWBE98.TIF
24HR Wind/Wave Forecast VT12Z 25N-60N, E of 155W	PWBE99.TIF
24HR Wind/Wave Forecast (Most Current)	PWBE10.TIF
48HR Wind/Wave Forecast VT00Z 20N-70N, 115W-135E	PJBI98.TIF
48HR Wind/Wave Forecast VT12Z 20N-70N, 115W-135E	PJBI99.TIF
48HR Wind Wave Forecast (Most Current)	PJBI10.TIF

48HR Wave Period/Swell Direction VT00Z 20N-70N, 115W-135E PJBI88.TIF
48HR Wave Period/Swell Direction VT12Z 20N-70N, 115W-135E PJBI89.TIF
48HR Wave Period/Swell Direction (Most Current) PJBI20.TIF
96HR Wind/Wave Forecast VT12Z 20N-70N, 115W-135E PJBM98.TIF
96HR Wave Period/Swell Direction VT12Z 20N-70N, 115W-135E PJBM88.TIF

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

TROPICAL WIND/WAVE CHARTS

0/24HR Wind/Wave Forecasts(2 Charts) VT00Z 30N-20S, E of 145W PWFA88.TIF
0/24HR Wind/Wave Forecasts(2 Charts) VT06Z 30N-20S, E of 145W PWFA89.TIF
0/24HR Wind/Wave Forecasts(2 Charts) VT12Z 30N-20S, E of 145W PJBA00.TIF
0/24HR Wind/Wave Forecasts(2 Charts) VT18Z 30N-20S, E of 145W PJBA01.TIF
0/24HR Wind/Wave Forecasts(Most Current) PJBA90.TIF
48HR Wind/Wave Forecast VT00Z 30N-20S, E of 145W PWFI88.TIF
48HR Wave Period/Swell Direction VT12Z 30N-20S, E of 145W PJFI88.TIF
48/72HR Wave Period/Swell Direction VT00Z 30N-20S,E of 145W PJFK88.TIF
48/72HR Wind/Wave Forecast VT12Z 30N-20S, E of 145W PWFI89.TIF

SURFACE CHARTS

00Z Surface Analysis NE Pacific (Part 1) 20N-70W, 115W-175W PYBA01.TIF
00Z Surface Analysis NW Pacific (Part 2) 20N-70W, 175W-135E PYBA02.TIF
06Z Surface Analysis NE Pacific (Part 1) 20N-70W, 115W-175W PYBA03.TIF
06Z Surface Analysis NW Pacific (Part 2) 20N-70W, 175W-135E PYBA04.TIF
12Z Surface Analysis NE Pacific (Part 1) 20N-70W, 115W-175W PYBA05.TIF
12Z Surface Analysis NW Pacific (Part 2) 20N-70W, 175W-135E PYBA06.TIF
18Z Surface Analysis NE Pacific (Part 1) 20N-70W, 115W-175W PYBA07.TIF
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
24HR Surface Forecast VT00Z Forecast 25N-60W, E of 155W PPBE00.TIF
24HR Surface Forecast VT12Z Forecast 25N-60W, E of 155W PPBE01.TIF
24HR Surface Forecast (Most Current) PPBE10.TIF
48HR Surface Forecast VT00Z 20N-70W, 115W-135E PWBI98.TIF
48HR Surface Forecast VT12Z 20N-70W, 115W-135E PWBI99.TIF
48HR Surface Forecast (Most Current) PWBI10.TIF
96HR Surface Forecast VT12Z 20N-70W, 115W-135E PWBM99.TIF

UPPER AIR CHARTS

00Z 500 MB Analysis 20N-70N 115W-135E PPBA50.TIF
12Z 500 MB Analysis 20N-70N, 115W-135E PPBA51.TIF
500 MB Analysis (Most Current) PPBA10.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 SURFACE CHARTS

00Z Tropical Surface Analysis 30N-20S, E of 145W PYFA96.TIF
06Z Tropical Surface Analysis 30N-20S, E of 145W PYFA97.TIF
12Z Tropical Surface Analysis 30N-20S, E of 145W PYFA98.TIF
18Z Tropical Surface Analysis 30N-20S, E of 145W PYFA99.TIF
Tropical Surface Analysis Most Current PYFA90.TIF
@00Z U.S./Tropical Surface Analysis (W Half) 5S-50N,55W-125W; PYEB86.TIF
@06Z U.S./Tropical Surface Analysis (W Half) 5S-50N,55W-125W; PYEB87.TIF
@12Z U.S./Tropical Surface Analysis (W Half) 5S-50N,55W-125W; PYEB85.TIF
@18Z U.S./Tropical Surface Analysis (W Half) 5S-50N,55W-125W; PYEB88.TIF
@ U.S./Tropical Surface Analysis (W Half) (Most Current); PYEB11.TIF

@24HR Tropical Surface Forecast(W Half)VT00,20S-30N,80W-145W;	PYFE79.TIF
@24HR Tropical Surface Forecast(W Half)VT12,20S-30N,80W-145W;	PYFE80.TIF
@24HR Tropical Surface Forecast(Most Current);	PYFE10.TIF
@48HR Tropical Surface Forecast(W Half)VT00,20S-30N,80W-145W;	PYFI81.TIF
@48HR Tropical Surface Forecast(W Half)VT12,20S-30N,80W-145W;	PYFI82.TIF
@48HR Tropical Surface Forecast(Most Current);	PYFI10.TIF
@72HR Tropical Surface Forecast(W Half)VT00,20S-30N,80W-145W;	PYFK83.TIF
@72HR Tropical Surface Forecast(W Half)VT12,20S-30N,80W-145W;	PYFK84.TIF
@72HR Tropical Surface Forecast (Most Current);	PYFK10.TIF

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

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

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

Note: Tropical Cyclone Danger Area chart replaced by High Wind/Wave Warning chart Dec 01 - May 14.

SEA SURFACE TEMPERATURES

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

SATELLITE IMAGERY

06Z GOES IR Satellite Image, Tropical East Pacific	evpn07.jpg
00Z GOES IR Satellite Image, East Pacific	evpn00.jpg
12Z GOES IR Satellite Image, East Pacific	evpn13.jpg
GOES IR 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

Further information see: http://www.nws.noaa.gov/om/marine/home.htm

Author: Tim Rulon, NWS Marine And Coastal Weather Services Branch W/OS21
Last Modified August 16, 2004
Document URL: http://weather.noaa.gov/pub/fax/rfaxpac.txt
ftp://weather.noaa.gov/fax/rfaxpac.txt

NATIONAL WEATHER SERVICE RADIOFAX PRODUCTS
for the Gulf of Mexico, Caribbean, Tropical Atlantic and Tropical Pacific

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

Assigned frequencies 4317.9, 8503.9 12789.9 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://weather.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.

PAY ATTENTION TO CAPITALIZATION:

Example using FTPMAIL:

```
Send an e-mail to:        ftpmail@weather.noaa.gov
Subject line:             Put anything you like
Body:                     open
                          cd fax
                          get PWEE11.TIF
                          get PYEA11.gif
                          quit
```

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

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject Line:           Put anything you like
Body:                   help
```

WIND/WAVE CHARTS	FILE NAME
00Z Sea State Analysis, 0N-31N, 35W-100W;	PJEA88.TIF
12Z Sea State Analysis, 0N-31N, 35W-100W;	PJEA90.TIF
Sea State Analysis (Most Current);	PJEA11.TIF
24HR Wind/Wave Forecast VT00, 0N-31N, 35W-100W;	PWEE89.TIF
24HR Wind/Wave Forecast VT06, 0N-31N, 35W-100W;	PWEE90.TIF
24HR Wind/Wave Forecast VT12, 0N-31N, 35W-100W;	PWEE91.TIF
24HR Wind/Wave Forecast VT18, 0N-31N, 35W-100W;	PWEE92.TIF
24HR Wind/Wave Forecast (Most Current);	PWEE11.TIF
48HR Wind/Wave Forecast VT00, 0N-31N, 35W-100W;	PWEI88.TIF
48HR Wind/Wave Forecast VT12, 0N-31N, 35W-100W;	PWEI89.TIF
48HR Wind/Wave Forecast (Most Current);	PWEI11.TIF
48HR Wave Period/Swell Dir Forecast VT12, 0N-31N, 35W-100W;	PJEI88.TIF

48HR Wave Period/Swell Dir Forecast VT00, 0N-31N, 35W-100W; PJEI89.TIF
48HR Wave Period/Swell Direction Forecast (Most Current); PJEI11.TIF
72HR Wind/Wave Forecast VT00, 0N-31N, 35W-100W; PJEK88.TIF
72HR Wind/Wave Forecast VT12, 0N-31N, 35W-100W; PJEK89.TIF
72HR Wind/Wave Forecast (Most Current); PJEK11.TIF
72HR Wave Period/Swell Dir Forecast VT00, 0N-31N, 35W-100W; PKEK88.TIF

SURFACE CHARTS

00Z U.S./Tropical Surface Analysis (W Half) 5S-50N,55W-125W; PYEB86.TIF
06Z U.S./Tropical Surface Analysis (W Half) 5S-50N,55W-125W; PYEB87.TIF
12Z U.S./Tropical Surface Analysis (W Half) 5S-50N,55W-125W; PYEB85.TIF
18Z U.S./Tropical Surface Analysis (W Half) 5S-50N,55W-125W; PYEB88.TIF
    U.S./Tropical Surface Analysis (W Half) (Most Current); PYEB11.TIF
00Z Tropical Surface Analysis (E Half) 5S-50N, 0W-70W; PYEA86.TIF
06Z Tropical Surface Analysis (E Half) 5S-50N, 0W-70W; PYEA87.TIF
12Z Tropical Surface Analysis (E Half) 5S-50N, 0W-70W; PYEA85.TIF
18Z Tropical Surface Analysis (E Half) 5S-50N, 0W-70W; PYEA88.TIF
    Tropical Surface Analysis (E Half) (Most Current); PYEA11.TIF
@24HR Tropical Surface Forecast(W Half)VT00,20S-30N,80W-145W; PYFE79.TIF
@24HR Tropical Surface Forecast(W Half)VT12,20S-30N,80W-145W; PYFE80.TIF
@24HR Tropical Surface Forecast(Most Current); PYFE10.TIF
@48HR Tropical Surface Forecast(W Half)VT00,20S-30N,80W-145W; PYFI81.TIF
@48HR Tropical Surface Forecast(W Half)VT12,20S-30N,80W-145W; PYFI82.TIF
@48HR Tropical Surface Forecast(Most Current); PYFI10.TIF
@72HR Tropical Surface Forecast(W Half)VT00,20S-30N,80W-145W; PYFK83.TIF
@72HR Tropical Surface Forecast(W Half)VT12,20S-30N,80W-145W; PYFK84.TIF
@72HR Tropical Surface Forecast (Most Current); PYFK10.TIF
24HR Tropical Surface Forecast(E Half)VT00,00N-31N, 35W-100W; PYEE79.TIF
24HR Tropical Surface Forecast(E Half)VT12,00N-31N, 35W-100W; PYEE80.TIF
     Tropical Surface Forecast(Most Current); PYEE10.TIF
48HR Tropical Surface Forecast(E Half)VT00,00N-31N, 35W-100W; PYEI81.TIF
48HR Tropical Surface Forecast(E Half)VT12,00N-31N, 35W-100W; PYEI82.TIF
     Tropical Surface Forecast(Most Current); PYEI10.TIF
72HR Tropical Surface Forecast(E Half)VT00,00N-31N, 35W-100W; PYEK83.TIF
72HR Tropical Surface Forecast(E Half)VT12,00N-31N, 35W-100W; PYEK84.TIF
     Tropical Surface Forecast(Most Current); PYEK10.TIF

@ Not transmitted via New Orleans radiofax but listed here for convenience

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

HIGH SEAS FORECASTS

04Z High Seas Forecast 7N-31N, 35W-98W, In English; PLEA86.TIF
10Z High Seas Forecast 7N-31N, 35W-98W, In English; PLEA87.TIF
16Z High Seas Forecast 7N-31N, 35W-98W, In English; PLEA89.TIF
22Z High Seas Forecast 7N-31N, 35W-98W, In English; PLEA88.TIF
    High Seas Forecast (Most Current); PLEA10.TIF

SATELLITE IMAGERY

0645Z GOES IR Satellite Image, 12S-44N, 28W-112W; evst06.jpg
1145Z GOES IR Satellite Image, 12S-44N, 28W-112W; evst12.jpg
1745Z GOES IR Satellite Image, 12S-44N, 28W-112W; evst18.jpg

2345Z GOES IR Satellite Image, 12S-44N, 28W-112W;	evst00.jpg
GOES IR Satellite Image (Most Current);	evst99.jpg

SCHEDULE INFORMATION

Radiofax Schedule (New Orleans, LA);	PLEZ01.TIF
Radiofax Schedule (DOS Text Format);	hfgulf.txt
Request for Comments;	PLEZ02.TIF
Product Notice Bulletin;	PLEZ03.TIF
Test Chart;	PZZZ95.TIF
Internet File Names, (This file);	rfaxmex.txt

* Tropical Cyclone Danger Area chart replaced by High Wind/Wave Warning chart Dec 01 - May 15, valid times 00z, 06z, 12z and 18z, 05N - 40N, 35W - 100W

Further information see: http://www.nws.noaa.gov/om/marine/home.htm

Author: Tim Rulon, NWS Marine And Coastal Weather Services Branch, W/OS21
Last Modified June 10, 2003
Document URL: http://weather.noaa.gov/pub/fax/rfaxmex.txt

NATIONAL WEATHER SERVICE RADIOFAX PRODUCTS
for Alaska and the North Pacific

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. These charts may be found in directories:

ftp://weather.noaa.gov/fax
or
ftp://inetsrv.arh.noaa.gov/pub/marfax/ (for files indicated by #)

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

PAY ATTENTION TO CAPITALIZATION:

Example using FTPMAIL:

```
Send an e-mail to:        ftpmail@weather.noaa.gov
Subject line:             Put anything you like
Body:                     open inetsrv.arh.noaa.gov
                          cd pub
                          cd marfax
                          get martab.gif
                          get sfcmap00.gif
                          quit

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

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

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject Line:           Put anything you like
Body:                   help
```

WIND/WAVE CHARTS	FILE NAME
00Z Sea State Analysis 20N-70N, 115W-135E	PJBA99.TIF

24HR Wind/Wave Forecast VT00Z 40N-70N, 115W-170E	PJBE88.TIF
24HR Wind/Wave Forecast VT12Z 40N-70N, 115W-170E	PJBE89.TIF
24HR Wind Wave Forecast (Most Current)	PJBE10.TIF
48HR Wind/Wave Forecast VT00Z 20N-70N, 115W-135E	PJBI98.TIF
48HR Wind/Wave Forecast VT12Z 20N-70N, 115W-135E	PJBI99.TIF
48HR Wind Wave Forecast (Most Current)	PJBI10.TIF
48HR Wave Period/Swell Direction VT00Z 20N-70N, 115W-135E	PJBI88.TIF
48HR Wave Period/Swell Direction VT12Z 20N-70N, 115W-135E	PJBI89.TIF
48HR Wave Period/Swell Direction (Most Current)	PJBI20.TIF
96HR Wind/Wave Forecast VT12Z 20N-70N, 115W-135E	PJBM98.TIF
96HR Wave Period/Swell Direction VT12Z 20N-70N, 115W-135E	PJBM88.TIF

SURFACE CHARTS

00Z Surface Analysis 40N-70N, 125W-150E	sfcmap00.gif#
06Z Surface Analysis 40N-70N, 125W-150E	sfcmap06.gif#
12Z Surface Analysis 40N-70N, 125W-150E	sfcmap12.gif#
18Z Surface Analysis 40N-70N, 125W-150E	sfcmap18.gif#
Surface Analysis (Most Current)	PYPA00.TIF
(Covers larger area than on-air broadcast)	
24HR Surface Chart Forecast VT00Z 40N-70N, 115W-170E	PYBE00.TIF
24HR Surface Chart Forecast VT12Z 40N-70N, 115W-170E	PYBE01.TIF
24HR Surface Chart Forecast (Most Current)	PYBE10.TIF
48HR Surface Chart Forecast VT00Z 20N-70N 115W-135E	PWBI99.TIF
48HR Surface Chart Forecast VT12Z 20N-70N 115W-135E	PWBI98.TIF
48HR Surface Chart Forecast (Most Current)	PWBI10.TIF
96HR Surface Chart Forecast VT12Z	PWBM99.TIF

UPPER AIR CHARTS

00Z 500 MB Analysis 20N-70N 115W-135E	PPBA50.TIF
12Z 500 MB Analysis 20N-70N, 115W-135E	PPBA51.TIF
500 MB Analysis (Most Current)	PPBA10.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

SEA SURFACE TEMPERATURES

Sea Surface Temperature Analysis 40N-60N,125W - 160E	sst.gif#

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	ICE.GIF
5 Day Sea Ice Forecast	ICEF.GIF
Cook Inlet Sea Ice Analysis	COOKICE.GIF

OTHER PRODUCTS

AK Coastal Forecast Tables	martab.gif#

SCHEDULE INFORMATION and MISCELLANEOUS

Radiofax Schedule Kodiak, AK;	sched.gif#
Radiofax Schedule (DOS Text Version)	hfak.txt
Test Pattern;	xxxxxx.xxx
Radiofacsimile Symbols and Contractions	symbol.gif#
Internet File Names; (This file)	rfaxak.txt

xxxxxx.xxx = Currently unavailable

Further information see: http://www.nws.noaa.gov/om/marine/home.htm

Author: Tim Rulon, NWS Marine And Coastal Weather Services Branch W/OS21
Last Modified Jan 22, 2004
Document URL: http://weather.noaa.gov/pub/fax/rfaxak.txt
ftp://weather.noaa.gov/fax/rfaxak.txt

NATIONAL WEATHER SERVICE RADIOFAX PRODUCTS
for the Central Pacific

NAVY Communications Station KVM-70 - Honolulu, Hawaii

Assigned frequencies 9982.5, 11090, 16135 and 23331.5 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 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://weather.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

xxxxxx (Not yet available from these directories)

.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.

PAY ATTENTION TO CAPITALIZATION:

Example using FTPMAIL:

```
Send an e-mail to:         ftpmail@weather.noaa.gov
Subject line:              Put anything you like
Body:                      open
                           cd fax
                           get PJBA90.TIF
                           get QDEQ99.gif
                           quit
```

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

```
Send an e-mail to:       ftpmail@weather.noaa.gov
Subject Line:            Put anything you like
Body:                    help
```

WIND/WAVE CHARTS	FILE NAME
0/24HR Wind/Wave Forecasts(2 Charts) VT00Z 30N-20S, 145W-80W	PWFA88.TIF
0/24HR Wind/Wave Forecasts(2 Charts) VT06Z 30N-20S, 145W-80W	PWFA89.TIF
0/24HR Wind/Wave Forecasts(2 Charts) VT12Z 30N-20S, 145W-80W	PJBA00.TIF
0/24HR Wind/Wave Forecasts(2 Charts) VT18Z 30N-20S, 145W-80W	PJBA01.TIF
0/24HR Wind/Wave Forecasts(Most Current);	PJBA90.TIF
24HR Wind/Wave Forecast VT00Z 60N-35S, 110W-130E;	QWBI99.TIF
48HR Winds/Wave Forecast VT00Z 60N-35S, 110W-130E;	QWBQ99.TIF
48HR Tropical Wind/Wave Forecast VT00Z 30N-20S, 145W-80W;	PWFI88.TIF
48HR Tropical Wave Period/Swell Dir VT12Z 30N-20S, 145W-80W;	PJFI88.TIF
48/72HR Tropical Wave Period/Swell Dir VT00Z 30N-20S, 145W-80W;	PJFK88.TIF

48/72HR Tropical Wind/Wave Forecast VT12Z 30N-20S, 145W-80W; PWFI89.TIF

SURFACE CHARTS

00Z Pacific Streamline Analysis 30N-30S, 110W-130E; xxxxxx.TIF
06Z Pacific Streamline Analysis 30N-30S, 110W-130E; xxxxxx.TIF
12Z Pacific Streamline Analysis 30N-30S, 110W-130E; xxxxxx.TIF
18Z Pacific Streamline Analysis 30N-30S, 110W-130E; xxxxxx.TIF
    Pacific Streamline Analysis (Most Current); xxxxxx.TIF
00Z North Pacific Surface Pressure Analysis 50N-EQ, 110W-130E; xxxxxx.TIF
06Z North Pacific Surface Pressure Analysis 50N-EQ, 110W-130E; xxxxxx.TIF
12Z North Pacific Surface Pressure Analysis 50N-EQ, 110W-130E; xxxxxx.TIF
18Z North Pacific Surface Pressure Analysis 50N-EQ, 110W-130E; xxxxxx.TIF
    North Pacific Surface Pressure Analysis (Most Current); xxxxxx.TIF
00Z Tropical Surface Analysis 50N-30S, 100W-120E; xxxxxx.TIF
06Z Tropical Surface Analysis 50N-30S, 100W-120E; xxxxxx.TIF
12Z Tropical Surface Analysis 50N-30S, 100W-120E; xxxxxx.TIF
18Z Tropical Surface Analysis 50N-30S, 100W-120E; xxxxxx.TIF
    Tropical Surface Analysis (Most Current) QYFA99.TIF
00Z Significant Cloud Features 50N-30S, 110W-160E; xxxxxx.TIF
12Z Significant Cloud Features 50N-30S, 110W-160E; xxxxxx.TIF
    Significant Cloud Features (Most Current); xxxxxx.TIF
24HR Wind/Stream Forecast VT00Z 50N-30S, 100W-120E; QWFI99.TIF
24HR Tropical Surface Forecast(W Half)VT00,20S-30N,80W-145W; PYFE79.TIF
24HR Tropical Surface Forecast(W Half)VT12,20S-30N,80W-145W; PYFE80.TIF
24HR Tropical Surface Forecast(Most Current); PYFE10.TIF
48HR Wind/Stream Forecast VT00Z 50N-30S, 100W-120E; QWFQ99.TIF
48HR Surface Forecast VT06Z 60N-55S, 55W-70E; xxxxxx.TIF
48HR Surface Forecast VT18Z 60N-55S, 55W-70E; xxxxxx.TIF
48HR Surface Forecast (Most Current); QDEQ99.TIF
48HR Tropical Surface Forecast(W Half)VT00,20S-30N,80W-145W; PYFI81.TIF
48HR Tropical Surface Forecast(W Half)VT12,20S-30N,80W-145W; PYFI82.TIF
48HR Tropical Surface Forecast(Most Current); PYFI10.TIF
72HR Tropical Surface Forecast(W Half)VT00,20S-30N,80W-145W; PYFK83.TIF
72HR Tropical Surface Forecast(W Half)VT12,20S-30N,80W-145W; PYFK84.TIF
72HR Tropical Surface Forecast (Most Current); PYFK10.TIF

UPPER AIR CHARTS

@48HR 500 MB Forecast VT00Z 50N-25S, 120W-120E xxxxxx.TIF
@48HR 500 MB Forecast VT12Z 50N-25S, 120W-120E xxxxxx.TIF
@48HR 500 MB Forecast (Most Current) QHFQ50.TIF

@ Not transmitted via Honolulu radiofax but listed here for convenience

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 High Wind/Wave Warning
      chart Dec 01 - May 14.

SATELLITE IMAGERY

00Z Eastern Pacific Satellite Image (IR)55N-40S, 105W-155E; xxxxxx.jpg

06Z Eastern Pacific Satellite Image (IR)55N-40S, 105W-155E; xxxxxx.jpg
12Z Eastern Pacific Satellite Image (IR)55N-40S, 105W-155E; xxxxxx.jpg
18Z Eastern Pacific Satellite Image (IR)55N-40S, 105W-155E; xxxxxx.jpg
    Eastern Pacific Satellite Image (Most Current); xxxxxx.jpg
00Z Southern Pacific Satellite Image (IR) 05N-40S, 130W-165E; xxxxxx.jpg
06Z Southern Pacific Satellite Image (IR) 05N-40S, 130W-165E; xxxxxx.jpg
12Z Southern Pacific Satellite Image (IR) 05N-40S, 130W-165E; xxxxxx.jpg
18Z Southern Pacific Satellite Image (IR) 05N-40S, 130W-165E; xxxxxx.jpg
    Southern Pacific Satellite Image (Most Current); xxxxxx.jpg

SEA SURFACE TEMPERATURE CHARTS

Pacific Sea Surface Temperature (VT Tuesday and Thursday); xxxxxx.TIF

SCHEDULE INFORMATION

Radiofax Schedule (Honolulu, HI); xxxxxx.TIF
Radiofax Schedule (DOS Text Version) hfhi.txt
Test/Map Symbols/General Notice; xxxxxxx.TIF
Internet File Names; (This file) rfaxhi.txt

Further information see: http://www.nws.noaa.gov/om/marine/home.htm

Author: Timothy Rulon, NWS Marine and Coastal Weather Services Branch W/OS21
National Weather Service
Last Modified December 11, 2003
Document URL: http://weather.noaa.gov/pub/fax/rfaxhi.txt
ftp://weather.noaa.gov/fax/rfaxhi.txt

NATIONAL WEATHER SERVICE MARINE TEXT PRODUCTS
HIGHSEAS, FORECAST DISCUSSION, OFFSHORE, NAVTEX, and OPEN LAKE PRODUCTS

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!

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject Line:           Put anything you like
Body:                   open
                        cd data
                        cd forecasts
                        cd marine
                        cd high_seas
                        get north_pacific.txt
                        get north_atlantic.txt
                        quit
```

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

```
Send an e-mail to:       ftpmail@weather.noaa.gov
Subject Line:            Put anything you like
Body:                    help
```

HIGH SEAS FORECASTS

These files may be found in directory:
ftp://weather.noaa.gov/data/forecasts/marine/high_seas/

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

FORECAST DISCUSSION

These files may be found in directory:
ftp://weather.noaa.gov/data/raw/ag/

Example:

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject Line:           Put anything you like
Body:                   open
                        cd data
                        cd raw
                        cd ag
                        get agnt40.kwnm.mim.atn.txt
                        quit
```

Note...these Forecast Discussions are primarily intended for use by forecasters and make heavy use of abbreviations. A glossary is

not available.

Northwest Atlantic	agnt40.kwnm.mim.atn.txt
Northeast Pacific	agpn40.kwnm.mim.pac.txt
Gulf, Caribbean Sea & SW N. Atlantic	agxx40.knhc.mim.ats.txt

OFFSHORE FORECASTS

For offshore forecasts, NAVTEX forecasts also be utililized where available which are nearly identical and may contain supplementary information at times for coastal areas.

These files may be found in directory:
ftp://iwin.nws.noaa.gov/data/text/FZNT21 (FZNT22, etc)
or
ftp://iwin2.nws.noaa.gov/data/text/FZNT21 (FZNT22, etc)

Example:

Send an e-mail to:	ftpmail@weather.noaa.gov
Subject Line:	Put anything you like
Body:	open iwin.nws.noaa.gov
	cd data
	cd text
	cd FZNT21
	get KWBC.TXT
	quit

PRODUCT DESCRIPTION	FILE NAME
New England	/FZNT21/KWBC.TXT
Mid-Atlantic	/FZNT22/KWBC.TXT
SW North Atlantic, Caribbean	/FZNT23/KNHC.TXT
Gulf of Mexico	/FZNT24/KNHC.TXT
Washington, Oregon	/FZPN25/KWBC.TXT
California	/FZPN26/KWBC.TXT
Eastern Gulf of Alaska	/FZAK67/PAJK.TXT
Western Gulf of Alaska	/FZAK61/PAFC.TXT
Bering Sea	/FZAK62/PAFC.TXT
Hawaii	/FZHW60/PHFO.TXT

NAVTEX FORECASTS

These files may be found in directory:
ftp://weather.noaa.gov/data/forecasts/marine/offshore/

Example:

Send an e-mail to:	ftpmail@weather.noaa.gov
Subject Line:	Put anything you like
Body:	open
	cd data
	cd forecasts
	cd marine
	cd offshore
	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 Savannah, GA	fznt25.kwnm.off.n03.txt
NAVTEX Miami, FL	fznt25.knhc.off.n04.txt
NAVTEX San Juan, PR	fznt26.knhc.off.n05.txt
NAVTEX New Orleans, LA	fznt27.knhc.off.n06.txt
NAVTEX Astoria, OR	fzpn24.kwnm.off.n09.txt
NAVTEX Pt. Reyes, CA	fzpn23.kwnm.off.n08.txt
NAVTEX Cambria, CA	fzpn22.kwnm.off.n07.txt
NAVTEX Honolulu, HI	fzhw61.phfo.off.n10.txt

OPEN LAKE FORECASTS

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

Example:

Send an e-mail to:	ftpmail@weather.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 Michican	fzus63.klot.glf.lm.txt
Lake Superior	fzus63.kmqt.glf.ls.txt

Further information see: http://www.nws.noaa.gov/om/marine/home.htm

Author: Timothy Rulon, Office of Marine and Coastal Services W/OS21,
National Weather Service
Last Modified Jul 15, 2004
Document URL: http://weather.noaa.gov/pub/fax/marine1.txt
ftp://weather.noaa.gov/fax/marine1.txt

NATIONAL WEATHER SERVICE MARINE TEXT PRODUCTS
HURRICANE PRODUCTS

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!

```
Send an e-mail to:      ftpmail@weather.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
```

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

```
Send an e-mail to:       ftpmail@weather.noaa.gov
Subject Line:            Put anything you like
Body:                    help
```

ATLANTIC HURRICANE PRODUCTS

These files may be found in directory:
ftp://weather.noaa.gov/data/hurricane_products/atlantic

PRODUCT DESCRIPTION	FILE NAME
Tropical WX Outlook	/weather/outlook.txt
Tropical WX Discussion	/weather/discussion.txt
Tropical WX Summary	/weather/summary.txt
Tropical WX Disturbance Stmt	/weather/advisory.txt
Tropical Cyclone Updates	TBD
Tropical Cyclone Positions	TBD
Tropical Cyclone Discussion (Storm #1)	/storm_1/discussion.txt
Tropical Cyclone Discussion (Storm #2)	/storm_2/discussion.txt
Tropical Cyclone Discussion (Storm #3)	/storm_3/discussion.txt
Tropical Cyclone Discussion (Storm #4)	/storm_4/discussion.txt
Tropical Cyclone Discussion (Storm #5)	/storm_5/discussion.txt
Public Advisory (Storm #1)	/storm_1/advisory.txt
Public Advisory (Storm #2)	/storm_2/advisory.txt
Public Advisory (Storm #3)	/storm_3/advisory.txt
Public Advisory (Storm #4)	/storm_4/advisory.txt
Public Advisory (Storm #5)	/storm_5/advisory.txt
Tropical Depression Forecast (Storm #1)	/storm_1/technical_advisory.txt
Tropical Depression Forecast (Storm #2)	/storm_2/technical_advisory.txt
Tropical Depression Forecast (Storm #3)	/storm_3/technical_advisory.txt
Tropical Depression Forecast (Storm #4)	/storm_4/technical_advisory.txt
Tropical Depression Forecast (Storm #5)	/storm_5/technical_advisory.txt
Hurricane Probabilities (Storm #1)	/storm_1/strike_probability.txt
Hurricane Probabilities (Storm #2)	/storm_2/strike_probability.txt

Hurricane Probabilities (Storm #3)	/storm_3/strike_probability.txt
Hurricane Probabilities (Storm #4)	/storm_4/strike_probability.txt
Hurricane Probabilities (Storm #5)	/storm_5/strike_probability.txt
RECON Plan	TBD

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 directory:
ftp://weather.noaa.gov/data/hurricane_products/eastern_pacific

PRODUCT DESCRIPTION	FILE NAME
Tropical WX Outlook	/weather/outlook.txt
Tropical WX Discussion	/weather/discussion.txt
Tropical WX Summary	/weather/summary.txt
Tropical WX Disturbance Stmt	/weather/advisory.txt
Tropical Cyclone Updates	/weather/update.txt
Tropical Cyclone Positions	TBD
Tropical Cyclone Discussion (Storm #1)	/storm_1/discussion.txt
Tropical Cyclone Discussion (Storm #2)	/storm_2/discussion.txt
Tropical Cyclone Discussion (Storm #3)	/storm_3/discussion.txt
Tropical Cyclone Discussion (Storm #4)	/storm_4/discussion.txt
Tropical Cyclone Discussion (Storm #5)	/storm_5/discussion.txt
Public Advisory (Storm #1)	/storm_1/advisory.txt
Public Advisory (Storm #2)	/storm_2/advisory.txt
Public Advisory (Storm #3)	/storm_3/advisory.txt
Public Advisory (Storm #4)	/storm_4/advisory.txt
Public Advisory (Storm #5)	/storm_5/advisory.txt
Tropical Depression Forecast (Storm #1)	/storm_1/technical_advisory.txt
Tropical Depression Forecast (Storm #2)	/storm_2/technical_advisory.txt
Tropical Depression Forecast (Storm #3)	/storm_3/technical_advisory.txt
Tropical Depression Forecast (Storm #4)	/storm_4/technical_advisory.txt
Tropical Depression Forecast (Storm #5)	/storm_5/technical_advisory.txt
RECON Plan	TBD

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://weather.noaa.gov/data/hurricane_products/central_pacific

PRODUCT DESCRIPTION	FILE NAME
Tropical WX Outlook	/weather/outlook.txt
Tropical WX Discussion	(discontinued)
Tropical WX Summary	/weather/summary.txt
Tropical WX Disturbance Stmt	/weather/advisory.txt
Tropical Cyclone Updates	/weather/update.txt
Tropical Cyclone Discussion (Storm #1)	/storm_1/discussion.txt
Tropical Cyclone Discussion (Storm #2)	/storm_2/discussion.txt
Tropical Cyclone Discussion (Storm #3)	/storm_3/discussion.txt

Tropical Cyclone Discussion (Storm #4)	/storm_4/discussion.txt
Tropical Cyclone Discussion (Storm #5)	/storm_5/discussion.txt
Public Advisory (Storm #1)	/storm_1/advisory.txt
Public Advisory (Storm #2)	/storm_2/advisory.txt
Public Advisory (Storm #3)	/storm_3/advisory.txt
Public Advisory (Storm #4)	/storm_4/advisory.txt
Public Advisory (Storm #5)	/storm_5/advisory.txt
Tropical Depression Forecast (Storm #1)	/storm_1/technical_advisory.txt
Tropical Depression Forecast (Storm #2)	/storm_2/technical_advisory.txt
Tropical Depression Forecast (Storm #3)	/storm_3/technical_advisory.txt
Tropical Depression Forecast (Storm #4)	/storm_4/technical_advisory.txt
Tropical Depression Forecast (Storm #5)	/storm_5/technical_advisory.txt
RECON PLAN	TBD

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

These files may be found in directory:
http://weather.noaa.gov/pub/data/raw/wt

Example:

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject Line:           Put anything you like
Body:                   open
                        cd data
                        cd raw
                        cd wt
                        get  wtpq31.pgum.tcp.pq1.txt
                        quit
```

PRODUCT DESCRIPTION	FILE NAME
Public Advisory (Storm #1)	/wtpq31.pgum.tcp.pq1.txt
Public Advisory (Storm #2)	/wtpq32.pgum.tcp.pq2.txt
Public Advisory (Storm #3)	/wtpq33.pgum.tcp.pq3.txt
Public Advisory (Storm #4)	/wtpq34.pgum.tcp.pq4.txt
Public Advisory (Storm #5)	/wtpq35.pgum.tcp.pq5.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 directory:
http://weather.noaa.gov/pub/data/raw/wt

Example:

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject Line:           Put anything you like
Body:                   open
```

```
cd data
cd raw
cd wt
get  wtpn21.pgtw..txt
quit
```

PRODUCT DESCRIPTION	FILE NAME
NW Pacific Tropical Cyclone Formation Alert Storm #1	/wtpn21.pgtw..txt
NW Pacific Tropical Cyclone Formation Alert Storm #2	/wtpn22.pgtw..txt
NW Pacific Tropical Cyclone Formation Alert Storm #2	/wtpn23.pgtw..txt
NW Pacific Tropical Cyclone Formation Alert Storm #4	/wtpn24.pgtw..txt
NW Pacific Tropical Cyclone Formation Alert Storm #5	/wtpn25.pgtw..txt
SW Pacific Tropical Cyclone Formation Alert Storm #1	/wtps21.pgtw..txt
SW Pacific Tropical Cyclone Formation Alert Storm #2	/wtps22.pgtw..txt
SW Pacific Tropical Cyclone Formation Alert Storm #3	/wtps23.pgtw..txt
SW Pacific Tropical Cyclone Formation Alert Storm #4	/wtps24.pgtw..txt
SW Pacific Trocical Cyclone Formation Alert Storm #5	/wtps25.pgtw..txt
NW Pacific Tropical Cyclone Warning Storm #1	/wtpn31.pgtw..txt
NW Pacific Tropical Cyclone Warning Storm #2	/wtpn32.pgtw..txt
NW Pacific Tropical Cyclone Warning Storm #3	/wtpn33.pgtw..txt
NW Pacific Tropical Cyclone Warning Storm #4	/wtpn34.pgtw..txt
NW Pacific Tropical Cyclone Warning Storm #5	/wtpn35.pgtw..txt
SW Pacific Tropical Cyclone Warning Storm #1	/wtpS31.pgtw..txt
SW Pacific Tropical Cyclone Warning Storm #2	/wtpS32.pgtw..txt
SW Pacific Tropical Cyclone Warning Storm #3	/wtpS33.pgtw..txt
SW Pacific Tropical Cyclone Warning Storm #4	/wtpS34.pgtw..txt
SW Pacific Tropical Cyclone Warning Storm #5	/wtpS35.pgtw..txt

Author: Timothy Rulon
Marine and Coastal Services Branch, OS21
National Weather Service
Last Modified Friday May 28, 2004
Document URL: http://weather.noaa.gov/pub/fax/marine2.txt

NATIONAL WEATHER SERVICE MARINE TEXT PRODUCTS
COASTAL and NEARSHORE MARINE FORECASTS

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!

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

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

```
Send an e-mail to:       ftpmail@weather.noaa.gov
Subject Line:            Put anything you like
Body:                    help
```

COASTAL and NEARSHORE MARINE FORECASTS

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

PRODUCT DESCRIPTION	FILE NAME
Caribou, ME	fzus51.kcar.cwf.car.txt
Gray, ME	fzus51.kgyx.cwf.gyx.txt
Taunton, MA	fzus51.kbox.cwf.box.txt
New York, NY	fzus51.kokx.cwf.okx.txt
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.keyw.cwf.eyw.txt
San Juan, PR	fzca52.tjsj.cwf.sju.txt
San Juan, PR (Spanish)	fzca52.tjsj.cwf.spn.txt
Tampa, FL	fzus52.ktbw.cwf.tbw.txt
Tallahasee, 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.klch.cwf.lch.txt
Houston/Galveston, TX	fzus54.khgx.cwf.hgx.txt
Corpus Christi, TX	fzus54.kcrp.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.kmtr.cwf.mtr.txt
Los Angeles, CA	fzus56.klox.cwf.lox.txt
San Diego, CA	fzus56.ksgx.cwf.sgx.txt
Hawaii	fzhw50.phfo.cwf.hfo.txt
Marianas (Guam)	fzmy50.pgum.cwf.my.txt
Micronesia	fzpq50.pgum.cwf.pq.txt
Samoa	fzzs50.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
Chicago,IL	fzus53.klot.nsh.lot.txt
Milwaukee/Sullivan,WI	fzus53.kmkx.nsh.mkx.txt
Green Bay,WI	fzus53.kgrb.nsh.grb.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	fzak52.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 and the Arctic Coast	fzak59.pafg.cwf.afg.txt

Author: Timothy Rulon, Marine and Coastal Weather Services Branch (W/OS21)
National Weather Service
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ftp://weather.noaa.gov/fax/marine3.txt

NATIONAL WEATHER SERVICE MARINE BUOY and C-MAN OBSERVAIONS

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 to retrieve the latest NWS buoy and C-MAN observations. NOTE CAPITALIZATION!

For the latest operational status of buoy and C-MAN stations see:
http://www.ndbc.noaa.gov/wstat.shtml

For questions on buoy or C-MAN observations contact:
webmaster.ndbc@noaa.gov

Example:

```
Send an e-mail to:        ftpmail@weather.noaa.gov
Subject Line:             Put anything you like
Body:                     open www.ndbc.noaa.gov
                          cd data
                          cd latest_obs
                          get 42007.txt
                          get gdil1.txt
                          quit
```

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

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject Line:           Put anything you like
Body:                   help
```

BUOY and C-MAN OBSERVATION ID's

These files may be found in directory:
ftp://www.ndbc.noaa.gov/data/latest_obs/
e.g.
ftp://www.ndbc.noaa.gov/data/latest_obs/41001.txt

PLATFORM ID	HULL/ PAYLOAD		LOCATION	LATITUDE	LONGITUDE
41001*	6N03	D	E. HATTERAS	34.68N	72.66W
41002*	6N26	V	S. HATTERAS	32.36N	75.46W
41004*	3D27	V	EDISTO	32.50N	79.10W
41008*	3D44	A	GRAYS REEF	31.40N	80.87W
41009	6N46	A	CANAVERAL	28.50N	80.18W
41010	6N19	V	CANAVERAL EAST	28.91N	78.55W
41012	3D48	A	ST. AUGUSTINE,	30.00N	80.50W
41013*	3D17	D	FRYING PAN SHOALS	33.48N	77.58W
41025*	3D33	D	DIAMOND SHOALS	35.15N	75.29W
42001*	10D10	M	MID GULF	25.86N	89.67W
42002*	10D08	M	WESTERN GULF	25.17N	94.42W
42003*	10D11	M	EAST GULF	26.01N	85.91W
42007*	3D14	D	BILOXI	30.09N	88.77W
42019*	3D61	D	LANEILLE	27.92N	95.36W
42020*	3D40	D	EILEEN	26.95N	96.70W

42035*	3D47	D	GALVESTON	29.25N	94.41W
42036*	3D12	D	WEST TAMPA	28.51N	84.51W
42038	3D35	A	NORTH MID GULF	27.42N	92.58W
42039	3D54	D	PENSACOLA S.	28.80N	86.06W
42040	3D60	D	MOBILE SOUTH	29.21N	88.20W
42041	3D24	M	NORTH MID GULF	27.50N	90.46W
44004*	6N07	D	HOTEL	38.50N	70.47W
44005*	6N23	D	GULF OF MAINE	43.19N	69.18W
44007*	3D46	V	PORTLAND	43.53N	70.14W
44008*	3D05	V	NANTUCKET	40.50N	69.43W
44009*	3D08	V	DELAWARE BAY	38.46N	74.70W
44011*	6N11	D	GEORGES BANK	41.06N	66.58W
44013*	3DV04	D	BOSTON	42.35N	70.69W
44014	3D18	D	VIRGINIA BEACH	36.58N	74.84W
44017*	3D49	A	MONTAUK POINT	40.70N	72.00W
44018*	3D51	A	SE CAPE COD	41.26N	69.30W
44025*	3D65	D	LONG ISLAND	40.25N	73.17W
44027*	3D29	A	JONESPORT	44.27N	67.31W
45001*	3D23	D	MID SUPERIOR	48.07N	87.78W
45002*	3D37	V	NORTH MICHIGAN	45.33N	86.42W
45003*	3DV03	V	NORTH HURON	45.35N	82.84W
45004*	3D38	V	EAST SUPERIOR	47.57N	86.55W
45005*	3D63	D	WEST ERIE	41.68N	82.40W
45006*	3DV05	V	WEST SUPERIOR	47.32N	89.87W
45007*	3D35	D	SOUTH MICHIGAN	42.67N	87.02W
45008*	3D10	V	SOUTH HURON	44.28N	82.42W
45012*	3DV02	V	LAKE ONTARIO	43.62N	77.41W
46001*	6N21	D	GULF OF ALASKA	56.30N	148.17W
46002*	6N16	D	WEST OREGON	42.52N	130.32W
46005*	6N01	D	W.ASTORIA	46.05N	131.02W
46006*	6N33	V	SW. ASTORIA	40.80N	137.48W
46011*	3D42	D	SANTA MARIA	34.88N	120.87W
46012*	3D52	D	HALF MOON BAY	37.36N	122.88W
46013	3D15	V	BODEGA BAY	38.23N	123.32W
46014*	3D31	D	PT ARENA	39.22N	123.97W
46015*	3D57	D	PORT ORFORD	42.73N	124.84W
46022*	3D36	V	EEL RIVER	40.72N	124.52W
46023	10D04	D	PT ARGUELLO	34.70N	120.96W
46025*	3D59	V	SANTA MONICA	33.75N	119.08W
46026*	3D39	V	SAN FRANCISCO	37.76N	122.83W
46027*	3D20	V	ST GEORGES	41.85N	124.38W
46028*	3D02	D	SAN MARTIN	35.74N	121.89W
46029*	3D62	D	COL. RIVER BAR	46.12N	124.51W
46035*	12D02	M	BERING SEA	57.06N	177.59W
46041*	3D09	D	CAPE ELIZABETH	47.34N	124.75W
46042*	3D43	D	MONTEREY BAY	36.75N	122.42W
46047*	3D53	V	TANNER BANK	32.43N	119.53W
46050*	3D55	V	STONEWALL BANK	44.61N	124.50W
46053*	3D58	A	E. SANTA BARB	34.24N	119.85W
46054	10D12	D	W. SANTA BARB	34.27N	120.44W
46059*	6N13	D	CALIFORNIA	37.99N	129.95W
46060*	3D64	V	WEST ORCA BAY	60.58N	146.83W
46061*	6N32	V	SEAL ROCKS (S.	60.22N	146.83W
46062	3DV01	A	PT SAN LUIS	35.10N	121.01W
46063*	6N31	D	PT.CONCEPTION	34.28N	120.67W
46066*	6N25	D	KODIAK	52.70N	155.00W
46069*	3D32	A	SO. SANTA ROSA	33.65N	120.20W
46072*	6N34	D	SOUTH ALEUTIAN	52.02N	172.10W
46075*	6N37	D	SHUMAGIN ISLAN	53.93N	160.81W
46078*	6N48	D	ALBATROSS BANK	56.05N	152.45W
46080*	6N29	D	KENNEDY ENTRAN	58.00N	150.01W
46081*	3D41	D	WESTERN PRINCE	60.78N	148.20W

46082*	6N42	D	CAPE SUCKLING	59.61N	143.67W
46083*	6N36	D	FAIRWEATHER	58.25N	138.00W
46084*	6N41	D	SITKA SOUND	56.59N	136.16W
46086*	3D68	A	SAN CLEMENTE B	32.50N	118.00W
51001*	6N18	V	NW. HAWAII	23.43N	162.21W
51002*	6N27	V	SW. HAWAII	17.15N	157.79W
51003*	6N28	V	W. HAWAII	19.16N	160.74W
51004*	6N38	A	SE. HAWAII	17.52N	152.48W
51028	3D13	D	CHRISTMAS ISL.	0.00N	153.91W

Total Base Funded Buoys:74
Total Other Buoys :12
Total Moored Buoys :86
*Base funded station of National Weather Service (NWS); however, all stations report data to NWS.

NDBC MOORED BUOY STATION LEGEND:
Hull Type-Anemometer Height
12D - 12 meter discus 10 m
10D - 10 meter discus 10 m
6N - 6 meter NOMAD 5 m
3D/3DV meter discus 5 m
LNS - 12 meter discus 8.5 m

Payload Types
A - ARES
D - DACT
M - MARS
V - VEEP

PLATFORM ID	PAYLOAD	LOCATION	LATITUDE	LONGITUDE
aban6	V	ALEXANDRIA BAY NY	44.33N	75.93W
alsn6*	A	AMBROSE LIGHT NY	40.45N	73.80W
amaa2*	A	EAST AMATULI ISLAND	58.92N	151.95W
auga2*	M	AUGUSTINE ISLAND AK	59.38N	153.35W
blia2*	V	BLIGH REEF LIGHT	60.84N	146.88W
burl1*	M	SOUTHWEST PASS LA	28.91N	89.43W
buzm3*	M	BUZZARDS BAY MA	41.40N	71.03W
caro3*	M	CAPE ARAGO OR	43.34N	124.38W
cdrf1*	V	CEDAR KEY FL	29.14N	83.03W
chlv2*	D	CHESAPEAKE LIGHT VA	36.91N	75.71W
clkn7*	M	CAPE LOOKOUT NC	34.62N	76.53W
dbln6*	M	DUNKIRK NY	42.49N	79.35W
desw1*	D	DESTRUCTION ISLAND WA	47.68N	124.49W
disw3*	D	DEVILS ISLAND WI	47.08N	90.73W
dpia1*	V	DAUPHIN ISLAND AL	30.25N	88.07W
drfa2*	M	DRIFT RIVER TERMINAL	60.55N	152.14W
dryf1*	M	DRY TORTUGAS FL	24.64N	82.86W
ducn7*	V	DUCK PIER NC	36.18N	75.75W
fbis1*	M	FOLLY ISLAND SC	32.69N	79.89W
ffia2*	D	FIVE FINGERS AK	57.27N	133.63W
fila2*	A	FLAT ISLAND LIGHT	59.33N	152.00W
fpsn7*	D	FRYING PAN SHOAL	33.49N	77.59W
fwyf1*	M	FOWEY ROCK FL	25.59N	80.10W
gdil1*	M	GRAND ISLE LA	29.27N	89.96W
iosn3*	D	ISLE OF SHOALS	42.97N	70.62W
ktnf1*	M	KEATON BEACH FL	29.82N	83.59W
lkwf1*	M	LAKEWORTH FL	26.61N	80.03W
lonf1*	M	LONG KEY FL	24.84N	80.86W

lscm4	V	LAKE ST. CLAIR	42.47N	82.76W
mdrm1*	D	MT DESERT ROCK	43.97N	68.13W
mism1*	D	MATINICUS ROCK ME	43.78N	68.86W
mlrf1*	V	MOLASSES REEF FL	25.01N	80.38W
mrka2*	V	MIDDLE ROCK LIGHT	61.08N	146.66W
nwpo3*	D	NEWPORT OR	44.61N	124.07W
pila2*	M	PILOT ROCK AK	59.74N	149.47W
pilm4*	V	PASSAGE ISLAND MI	48.22N	88.37W
pota2*	V	POTATO POINT AK	61.06N	146.70W
ptac1*	M	POINT ARENA CA	38.96N	123.74W
ptat2*	M	PORT ARANSAS TX	27.83N	97.05W
ptgc1*	M	POINT ARGUELLO CA	34.58N	120.65W
roam4*	D	ROCK OF AGES	47.87N	89.31W
sanf1*	M	SAND KEY FL	24.46N	81.88W
sauf1*	V	ST. AUGUSTINE FL	29.86N	81.27W
sbio1*	M	SOUTH BASS ISLAND	41.63N	82.84W
sgnw3*	D	SHEBOYGAN WI	43.75N	87.69W
sgof1*	M	ST. GEORGE OFFSHORE	29.41N	84.86W
sisw1*	M	SMITH ISLAND WA	48.32N	122.84W
smkf1*	M	SOMBRERO KEY FL	24.63N	81.11W
spgf1*	M	SETTLEMENT PT GBI	26.70N	78.99W
srst2*	M	SABINE TX	29.67N	94.05W
stdm4*	D	STANNARD ROCK MI	47.18N	87.23W
supn6	V	SUPERIOR SHOALS NY	44.47N	75.80W
thin6	V	THOUSAND ISL. NY	44.30N	75.98W
tplm2*	M	THOMAS POINT MD	38.90N	76.44W
ttiw1*	D	TATOOSH ISLAND WA	48.39N	124.74W
venf1*	M	VENICE FL	27.07N	82.45W
wpow1*	V	WEST POINT WA	47.66N	122.44W

Total Base Funded Stations: 53
Total Other Stations : 04
Total Stations : 57
*Base funded station of National Weather Service (NWS);
however, all stations report data to NWS.

NDBC C-MAN STATION LEGEND:
Payload Types
A - ARES
D - DACT
M - MARS
V - VEEP

For current buoy status see: http://www.ndbc.noaa.gov/wstat.shtml

Further information see: http://www.nws.noaa.gov/om/marine/home.htm

Author: Timothy Rulon, Office of Marine and Coastal Services W/OS21,
National Weather Service
Last Modified Jun 18, 2004
Document URL: http://weather.noaa.gov/pub/fax/buoydata.txt
ftp://weather.noaa.gov/fax/buoydata.txt

National Hurricane Center Listserver

Tropical Cyclone text products released by the National Hurricane Center are available by email. Products from the Central Pacific Hurricane Center are not available using this Listserver (see FTPMAIL server below). This Listserver allows you to subscribe and unsubscribe to any of the six lists currently offered. The lists are arranged by region (Atlantic and E. Pacific), with the choice of receiving just the Public Advisories and any updates or position estimates, along with the Tropical Weather Outlook, just the Forecast/Advisories and any updates or position estimates, along with the Tropical Weather Outlook, or you can opt for the full suite of Tropical Cyclone advisories and the Tropical Weather Outlook.

Please Note: This is an experimental service. Interruptions or duplications in email deliveries while we test the system are to be expected. Notices will be sent if any extended interruptions are encountered. Although there is no charge for the service, users should be aware of the costs for operating their particular email system before attempting to use this Listserver, especially when using satellite communication systems.

Disclaimer: This server may not be available 24 hours a day, seven days a week. Timely delivery of data and products from this server through the Internet is not guaranteed. Please read the full Disclaimer (http://www.nws.noaa.gov/disclaimer1.html) for more information.

Privacy: You must submit a valid email address to subscribe to the service. The server will reply to the address given to verify that the address is valid. The email address is stored on the server only as long as you are subscribed to the service. Please read the NHC/TPC Privacy Statement (http://www.nhc.noaa.gov/privacy.html) for full details on information gathered by the website.

The following products are available via email for the indicated areas during the hurricane season (June 1 through November 30 for the Atlantic, May 15 through November 30 for the Eastern Pacific):

Tropical Weather Outlook*	(Atlantic and E Pacific 4 times a day)
Forecast/Advisory	(Atlantic and E Pacific)
Public Advisory	(Atlantic always, E Pacific only when land is threatened)
Discussion	(Atlantic and E Pacific)
Probabilities	(Atlantic only)
Update	(Atlantic and E Pacific...intermittent)
Position Estimate	(Atlantic and E Pacific...intermittent)
Special Tropical Disturbance Statement	(Atlantic and E Pacific...intermittent)

*The Tropical Weather Outlook is sent to all lists for each region.

Please note that there is overlap in the lists, so that, for example, subscribing to both the FULL and PUBLIC ADVISORIES ONLY lists for the same region will generate some duplicate email notices. It is suggested that you subscribe to only one list per region.

To subscribe or unsubscribe send an empty email to the following addresses as follows:

Subscription addresses:

Atlantic (Public Advisories and updates, morning Outlook)
mail-storm-atlan-subscribe@hogfish.nhc.noaa.gov

Atlantic Marine (Forecast/Advisories and updates, morning Outlook)
     mail-storm-atlan-marine-subscribe@hogfish.nhc.noaa.gov

Atlantic Full (All Advisories and updates, morning Outlook)
     mail-storm-atlan-full-subscribe@hogfish.nhc.noaa.gov

Atlantic Spanish (Spanish-language Public Advisory, morning Outlook)
     mail-atlan-outlook-sp-subscribe@hogfish.nhc.noaa.gov

Atlantic Outlooks (the rest of the Outlooks)
     mail-atlan-outlook-subscribe@hogfish.nhc.noaa.gov

Atlantic Outlooks Spanish (the rest of the Outlooks in Spanish)
     mail-atlan-outlook-sp-subscribe@hogfish.nhc.noaa.gov

East Pacific (Public Advisories and updates, morning Outlook)
     mail-storm-epac-subscribe@hogfish.nhc.noaa.gov

East Pacific Marine (Forecast/Advisories and updates, morning Outlook)
     mail-storm-epac-marine-subscribe@hogfish.nhc.noaa.gov

East Pacific Full (All Advisories and updates, morning Outlook)
     mail-storm-epac-full-subscribe@hogfish.nhc.noaa.gov

East Pacific Outlooks (the rest of the Outlooks)
     mail-epac-outlook-subscribe@hogfish.nhc.noaa.gov

Unsubscription addresses:

Atlantic
     mail-storm-atlan-unsubscribe@hogfish.nhc.noaa.gov

Atlantic Marine
     mail-storm-atlan-marine-unsubscribe@hogfish.nhc.noaa.gov

Atlantic Full
     mail-storm-atlan-full-unsubscribe@hogfish.nhc.noaa.gov

Atlantic Spanish
     mail-storm-atlan-sp-unsubscribe@hogfish.nhc.noaa.gov

Atlantic Outlooks
     mail-atlan-outlook-unsubscribe@hogfish.nhc.noaa.gov

Atlantic Outlooks Spanish
     mail-atlan-outlook-sp-unsubscribe@hogfish.nhc.noaa.gov

East Pacific
     mail-storm-epac-unsubscribe@hogfish.nhc.noaa.gov

East Pacific Marine
     mail-storm-epac-marine-unsubscribe@hogfish.nhc.noaa.gov

East Pacific Full
     mail-storm-epac-full-unsubscribe@hogfish.nhc.noaa.gov

East Pacific Outlooks
     mail-epac-outlook-unsubscribe@hogfish.nhc.noaa.gov

If you desire to receive hurricane advisories from the Central Pacific Hurricane Center, or other NWS forecast products only as requested, the NWS FTPMAIL server will be more appropriate for your needs.
To obtain the FTPMAIL "Help" file:

```
Send an e-mail to:      ftpmail@weather.noaa.gov
Subject Line:           Put anything you like
Body:                   help
```

Information on other e-mail "robots" may be found as follows:

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

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
```

A non-NWS FAQ webpage describing several public FTP-to-EMAIL and WWW-to-EMAIL servers may be found at:

http://www.faqs.org/faqs/internet-services/access-via-email/

Author: Timothy Rulon
National Weather Service
Last Modified July 20, 2004
Document URL: http://weather.noaa.gov/pub/fax/nhclist.txt
ftp://weather.noaa.gov/fax/nhclist.txt

University of Illinois Listserver for Marine Applications

Note: The following provided information does not imply any endorsement by the National Weather Service as to function or suitability for your purpose or environment.

These Lists provide an automated means to receive NWS hurricane forecast products via e-mail. However, performance may vary and receipt cannot be guaranteed by either UIUC or the National Weather Service

The University of Illinois at Urbana-Champaign (UIUC) 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 hurricane information via e-mail. Information on this system may be found at: http://www.lsoft.se/scripts/wl.exe?XH=LISTSERV.UIUC.EDU

Users should be aware of the costs for operating their particular e-mail system before attempting to use this List server, especially when using satellite communication systems. Although the service is free, the user is responsible for any charges associated with the communication system(s) used by their e-mail system. As this List server will send requested data on a continuous basis until service is successfully terminated, potential charges might be significant.

As a general guide, National Weather Service hurricane products average 1 Kbyte each in length. The tropical weather OUTLOOK is transmitted on a 6 hour cycle during the hurricane season. Other products are transmitted when active systems exist, on a 6 hour cycle (one series of products for each storm). Products may be transmitted more often as the systems approach landfall, to make corrections, etc. The Lists may contain products in addition to those produced by the National Weather Service.

This List server is not operated or maintained by the National Weather Service, please direct all questions to WX-ATLAN-request@LISTSERV.UIUC.EDU

National Weather Service hurricane products may also be found on the World Wide Web at links including:

http://www.nhc.noaa.gov
http://www.nws.noaa.gov/om/marine/forecast.htm

Below are an abbreviated set of instructions for the WX-ATLAN and WX-TROPL Lists on the UIUC List server.

****WX-ATLAN INFORMATION****

This list contains topical weather outlooks, hurricane position reports, etc. It is most active from June through December. Portions of the products on this list may be in abbreviated (coded) format.

To subscribe to WX-ATLAN send e-mail to LISTSERV@UIUC.EDU and include the following message:

sub wx-atlan YourFirstName YourLastName

To signoff WX-ATLAN send e-mail to LISTSERV@UIUC.EDU and
include the following message:

signoff wx-atlan

WX-ATLAN mailings are subdivided based on product category. There is
presently no way to restrict mailings to a specific storm. By default,
when you first subscribe, you will receive ONLY the brief outlook
(OUTLOOK)

! ! ! I M P O R T A N T N O T E ! ! !

YOU WILL ONLY RECEIVE THE TROPICAL WEATHER OUTLOOK WHEN YOU FIRST
SUBSCRIBE TO WX-ATLAN. THIS MEANS YOU WILL *NOT* RECEIVE ANY
HURRICANE WATCHES, WARNINGS, OR ADVISORIES UNLESS YOU CHANGE YOUR
SUB-TOPIC PROFILE (SEE BELOW).

The available sub-topics are:

ALL = All sub-topics
OUTLOOK = Brief discussions concerning development trends [ABNT20]
TROPDISC = Detailed discussions concerning development trends [AXNT20]
FORECAST = Storm forecasts (wind and sea height estimates) [WTNT2x]
ADVISORY = Storm status reports (movement, wind speeds, etc) [WTNT3x]
STRMDISC = Discussion reports concerning a specific storm [WTNT4x]
POSITION = Position reports [WTNT5x]
UPDATE = Storm updates (they often cites recon reports) [WTNT6x]
STRIKE = Strike probabilities (landfall probabilities) [WTNT7x]
ALL = All sub-topics
RECON = URNT12 FOS header Vortex messages
SEAFCST = High Seas Forecast [FZNT01]
SUMMARY = Tropical Storm Summary Information
ESPANOL = Spanish-language bulletins [WTCA4x] [ACCA62]
MARINE = Products specifically of interest to maritime interests

To receive bulletins from just one specific product say the strike
probabilities, send e-mail to LISTSERV@UIUC.EDU
with the following:

SET WX-ATLAN TOPICS: STRIKE

You can also use combinations of the keywords for multiple products.
For example:

SET WX-ATLAN TOPICS: STRIKE,POSITION,TROPDISC

Notes: If you have previously specified a list of sub-topics and now
you want to add or delete specific sub-topics, prefix them
with a (+) or (-) respectively. For example, to add ADVISORY and
delete TROPDISC (while leaving any other sub-topics
alone) you would send the command:

SET WX-ATLAN TOPICS: +ADVISORY -TROPDISC

You *must* already be subscribed to WX-ATLAN in order to use the
sub-topic commands.

You can also use the web interface to control your subscription

once you are subscribed:

    http://listserv.uiuc.edu/wa.cgi?SUBED1=wx-atlan&A=1

Please address *ALL* questions concerning subscriptions to chris@siu.edu.

A Web Archive of WX-ATLAN may be found at:
http://listserv.uiuc.edu/archives/wx-atlan.html

****WX-TROPL TROPICAL INFORMATION****

This list contains topical weather outlooks, hurricane position reports, etc. Portions of the products on this list may be in abbreviated (coded) format. This list includes some NAVY as well as NWS products

NOTE: For Atlantic and Gulf of Mexico information see the WX-ATLAN list.

To subscribe to WX-TROPL send e-mail to LISTSERV@UIUC.EDU and include the following message:

sub wx-tropl YourFirstName YourLastName

To signoff WX-TROPL send e-mail to LISTSERV@UIUC.EDU and include the following message:

signoff wx-tropl

WX-TROPL mailings are subdivided into geographic regions. By default, new subscribers will receive ALL bulletins. We have set up sub-topic areas for a number of geographically related regions:

PACIFIC-EN = Pacific Ocean Eastern Northern region (90W to 140W)
PACIFIC-NC = Pacific Ocean North Central region (140W to 180W)
PACIFIC-NW = Pacific Ocean Northwest region (100E to 180E)
PACIFIC-SW = Pacific Ocean Southwest (120E to 180E south of Equator)
PACIFIC-SE = Pacific Ocean Southeast Region
INDIAN-N = Indian Ocean (North) (100E to 40E north of Equator)
INDIAN-S = Indian Ocean (South) (120E to 40E south of Equator)

To receive bulletins from just one specific region, say the northwest Pacific Ocean, send e-mail to
LISTSERV@UIUC.EDU with the following:

SET WX-TROPL TOPICS: PACIFIC-NW

You can also use combinations of the keywords for multiple areas. For example:

SET WX-TROPL TOPICS: PACIFIC-EN, PACIFIC-NW

Notes: If you have previously specified a list of sub-topics and now you want to add or delete specific sub-topics, prefix them with a (+) or (-) respectively. For example, to add PACIFIC-NW and delete INDIAN-N (while leaving any other sub-topics alone) you would send the command:

SET WX-TROPL TOPICS: +PACIFIC-NW -INDIAN-N

You *must* already be subscribed to WX-TROPL in order to use the sub-topic commands.

You can also use the web interface to control your subscription
once you are subscribed:

    http://listserv.uiuc.edu/wa.cgi?SUBED1=wx-tropl&A=1

Please address *ALL* questions concerning subscriptions to chris@siu.edu.

A Web Archive of WX-TROPL may be found at:
http://listserv.uiuc.edu/archives/wx-tropl.html

****
If you wish to receive National Weather Service hurricane products
via e-mail only upon individual request , the NWS FTPMAIL server
may be more appropriate for your needs.

NWS FTPMAIL SERVER
National Weather Service radiofax charts broadcast by U.S. Coast Guard
from Boston, New Orleans and Pt. Reyes, California are available via
e-mail. Marine text products are also available. 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 three hours, 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 (8 Kbytes).

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

or available at: http://weather.noaa.gov/pub/fax/ftpmail.txt

also please visit:
http://www.nws.noaa.gov/om/marine/home.htm

*****
National Weather Service, NOAA
1325 East West Highway
Silver Spring, MD 20910

Webpage Content: Tim Rulon,
                  NWS Office of Marine and Coastal Services W/OS21
Last Modified: March 26, 2003
Document URL: http://weather.noaa.gov/pub/fax/uiuclist.txt
              ftp://weather.noaa.gov/fax/uiuclist.txt

Marine Forecasts 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:

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

FTPMAIL

National Weather Service marine text forecasts, radiofax charts and buoy observations are available via e-mail via an FTPMAIL server. Further, FTPMAIL may be used to acquire any file on a *.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

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

National Hurricane Center Listserver

The National Weather Service's National Hurricane Center operates an e-mail listserver which is special interest to mariners who do not have direct access to the World Wide Web but who are equipped with an e-mail system. This listserver provides an automated means to receive NWS hurricane forecast products via e-mail. However, performance may vary and receipt cannot be guaranteed. This is an experimental service. Interruptions or duplications in e-mail deliveries while we test the system are to be expected. To get started in using the National Hurricane Center Listserver, follow these simple directions for more information, or see: http://www.nhc.noaa.gov/signup.shtml

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

University of Illinois Listserver
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://www.lsoft.se/scripts/wl.exe?XH=LISTSERV.UIUC.EDU

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

Hurricane Watch Net YahooGroup Listserver
The Amateur Radio "HAM" Hurricane Watch Net manages two YahooGroup Lists, HWN, and hwn_epac , which 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 forecast products via e-mail. However, performance may vary and receipt cannot be guaranteed. Due to a system limitation, duplicate e-mails are likely. To get started in using the HWN/hwn_epac YahooGroup Listserver, follow these simple directions to obtain further information, or see: http://www.hwn.org/, http://groups.yahoo.com/group/HWN and http://groups.yahoo.com/group/hwn_epac

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

NEMOC Automated Chart System
The U.S. Naval European Meteorology and Oceanography Command (NEMOC) has developed a method of weather chart/warning delivery via e-mail for forecasts of the Eastern Atlantic and Mediterranean. For questions or comments on NEMOC's products and services contact the 24x7 Command Duty Officer at cdo@nemoc.navy.mil, or call 011-34-945-82-2410. To receive the NEMOC Automated Chart System "help" file:

Send an e-mail to: products@nemoc.navy.mil
Subject line: Put anything you like
Body: Put anything you like

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

NAVIMAIL
Météo-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/meteonet/services/navimail/navimail.htm

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

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/lnm/listserver.htm

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.

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

Author: Timothy Rulon   timothy.rulon@noaa.gov
Marine and Coastal Weather Services Branch W/OS21
National Weather Service
Last Modified Jul 06, 2004
Document URL: http://weather.noaa.gov/pub/fax/robots.txt
ftp://weather.noaa.gov/fax/robots.txt

AMVER/SEAS

In Pursuit of Safety At Sea

Under a cooperative agreement between the National Oceanic and Atmospheric Administration (NOAA) and the U. S. Coast Guard (USCG), software has been created to assist Volunteer Observing Ships (VOS) in submitting marine weather reports and participating in the Automated Mutual-assistance VEssel Rescue system (AMVER). The VOS program allows ships to report marine weather to the National Weather Service (NWS) so that high seas forecasts will be as timely and accurate as possible. The AMVER system allows ships to report their intended track so that in the event of an emergency all available resources may be focused on aiding ships in distress. Both of these systems are voluntary and are intended to aid all mariners on the high seas. All transmission costs are paid by the U.S. Coast Guard and NOAA. The ship is not responsible for any transmission costs, provided messages are sent to the address specified in the user's guide.

NOAA's SEAS (Shipboard Environmental data Acquisition System) program relies on volunteer observers to report weather at least four times per day at 00Z, 06Z, 12Z, and 18Z. Ships are encouraged to also submit reports at 03Z, 09Z, 15Z and 21Z. In addition, a very limited number of ships are asked to collect oceanographic data. For these ships, a SEAS field representative installs the extra hardware needed and trains the crew in collecting and transmitting the data. Portions of the software needed for these observations are password protected to eliminate confusion.

AMVER reports allow the U. S. Coast Guard to track a vessel's position. The AMVER program relies on ships to submit four types of reports: (1) Sail Plans; (2) Position Reports; (3) Arrival Reports and (4) Deviation Reports, when necessary. The U. S. Coast Guard updates their database with the position information from these reports, which allows them to identify vessels in the vicinity of a ship in distress.

Ships may participate in either the AMVER or SEAS program, but there are benefits to participating in both. A ship can reduce reporting requirements, since AMVER position reports are created from every weather message and automatically forwarded to the U.S. Coast Guard.

A typical voyage would require the submission of an AMVER Sail Plan before departure, submissions of weather reports four times per day and the submission of an Arrival Report upon arrival. A Deviation Report is only submitted if the ship deviates from its original plan. Ships that follow the same routes repeatedly get an additional benefit since Sail Plans can be stored in the system and recalled and modified rather than creating new ones.

The AMVER/SEAS PC software was developed for use with INMARSAT C transceivers. For those ships already participating in the SEAS program, GOES transmitters will continue to work for the transmission of SEAS observations. To participate in the AMVER program the ship must possess an INMARSAT C transmitter with a floppy drive and the ability to send messages in binary format, and a 286 (or better) IBM compatible PC.

A Windows 95/98/00/ME/NT/XP version of AMVER/SEAS is now available.

For Information on SEAS contact:

Your nearest U.S. Port Meteorological Officer or SEAS representative listed in the Appendix.

For Information on AMVER contact:

Rick Kenney 1-212-668-7762
e-mail: rkenney@batteryny.uscg.mil

or visit the SEAS website at:
http://seas.amverseas.noaa.gov/seas/

MAROB

An Experimental Voluntary Marine Observation Program

All Information with Respect to the MAROB Program Are Preliminary and Subject to Revision

The MAROB Program is an experimental voluntary marine observation program of the National Weather Service in the early stages of development. It seeks the participation of all mariners, both commercial and recreational, which are not part of the more in-depth VOS program. It is the goal of the program to collect as many marine observations as practicable, to improve the accuracy of coastal, offshore and high seas forecasts, by taking advantage of technological advancements in marine communications and the proliferation of the Internet.

MAROB observations will be in coded form which can be better ingested, distributed and displayed by forecasters than observations in plain language. The MAROB report format will be identical to VOS coded reports, with the exception that "MAROB" will replace "BBXX". The MAROB program will differ from the VOS Program in at least several other aspects: Although MAROBs will be used by forecasters in forecast decision process, these data will likely not be used directly by computer models; Any communications charges and the cost of any observing equipment will not be reimbursed by the Weather Service; The observation elements collected will typically be a subset of those collected in the full VOS report.

The National Weather Service is in the process of developing cooperative arrangements with organizations such as the United States Power Squadrons, the Coast Guard Auxiliary, the WinLink 2000 Global Radio Network, the Maritime Mobile Service Network, CruiseEmail.com, Ocens, Sailmail, SkyMate, MarineNet Wireless, and the YOTREP Reporting System, to both train observers and forward observations to NWS. Technologies utilized may include cellular telephone, HF Marine radio, MF Marine radio, VHF Marine Radio, Ham Radio, Webforms and e-mail.

In several cases, MAROB reporting schemes will work in conjunction with vessel position reporting systems such as WinLink's Position Reporter, the Maritime Mobile Service Network's ShipTrak, and the YOTREPs Reporter, to enhance the safety of mariners.

At present, mariners may participate in the MAROB program in any of several ways.

For information on the MAROB Program see:

http://www.nws.noaa.gov/om/marine/marob.htm

Or contact::
timothy.rulon@noaa.gov
1-301-713-1677 x 128

For information on other marine observation programs of the National Weather Service see:

http://www.nws.noaa.gov/om/marine/voluntary.htm

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.

USEFUL MARINE WEATHER PUBLICATIONS

Marine Service Charts (MSC) - $1.25[1]

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 at: **http://www.nws.noaa.gov/om/marine/pub.htm**.

Location	Number
Eastport, ME to Montauk Point, NY	MSC-1
Montauk Point, NY to Manasquan, NJ	MSC-2
Manasquan, NJ to Cape Hatteras, NC	MSC-3
Cape Hatteras, NC to Savannah, GA	MSC-4
Savannah, GA to Apalachicola, FL	MSC-5
Apalachicola, FL to Morgan City, LA	MSC-6
Morgan City, LA to Brownsville, TX	MSC-7
Mexican Border to Point Conception, CA	MSC-8
Point Conception, CA to Point St George,CA	MSC-9
Point St George, CA to Canadian Border	MSC-10
Great Lakes	MSC-11/12
Hawaiian Waters	MSC-13
Puerto Rico and Virgin Islands	MSC-14
Alaskan Waters	MSC-15
Guam and the Northern Mariana Islands	MSC-16

OTHER PUBLICATIONS OF VALUE TO THE MARINER

Mariner's Weather Log Magazine - $13.00/2 issues/yr ($18.20 foreign)[3]
Selected Marine Worldwide Weather Broadcasts (9/92)[5]
Voluntary Observing Ship Program Brochure (1999) Free[6]
NWS Observing Handbook NO.1 (4/99)[6]
Worldwide Marine Radiofacsimile Broadcast Schedules (06/03)[4]
NOAA Weather Radio Brochure (NOAA/PA 94070, 3/97) Free[2]
NOAA Weather Radio Handout (NOAA/PA 94061, 3/97) Free[2]
A Mariners Guide to Marine Weather Services - Great Lakes (NOAA/PA 98053) Free[2]
A Mariners Guide to Marine Weather Services - Coastal, Offshore, and High Seas (NOAA/PA 98054) Free[2]
Safe Boating Weather Tips (NOAA/PA 94058, 6/98) Free[2]
World Meteorological Organization Publication 9 - Weather Reporting,
Volume D - Information for Shipping (Broadcast Schedules)[15]
National Ocean Service Coast Pilot, Volumes 1-9 [1]
NGA Publication 117 "Radio Navigational Aids" (2002)…Includes CD[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[14]
U.S. Notices to Mariners #1, Special Notice to Mariners Paragraphs[14]
Summary of Notice to Mariners Corrections [13]
The Future in Marine Radio Communications - GMDSS (1998) Free[9]
Maritime Navigational Safety Information Sources, (9/94) $8[7]
Maritime Radio Users Handbook (1992) $12[7]
The British Admiralty List of Radio Signals[8]
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
Volume 4 Meteorological Observation Stations
Volume 5 Global Maritime Distress and Safety Systems
Volume 6 Pilot Services, Vessel Traffic Services & Port Operations (5 parts)

Canadian Coast Guard Radio Aids to Navigation - $18.95 Cdn [16]
Directory of Private Weather Services - Free[10]
TSUNAMI The Great Waves - Free [11]
International SafetyNET Manual, 1994; IMO-908E[12]
NAVTEX Manual, 1994; IMO-951E[12]
GMDSS Handbook, 1995 (Includes GMDSS Master Plan); IMO-970E[12]
SOLAS Consolidated Edition, 1997; IMO-110E[12]
Mariners Guide for Hurricane Awareness in the North Atlantic Basin (large file 2.3 MB PDF format)
(http://www.nhc.noaa.gov/marinersguide.pdf)
U.S. NAVY Hurricane Havens/Heavy Weather Handbooks
(https://www.cnmoc.navy.mil/nmosw/handbk.htm)
Radiofacsimile Charts User's Guide (large file 2.2 MB PDF format)
(http://www.mpc.ncep.noaa.gov/UsersGuide/UG.pdf)

1. FAA/National Aeronautical Charting Office
   Distribution Division, AVN-530
   6303 Ivy Lane, Suite 400
   Greenbelt, MD 20770
   (301) 436-8301
   (800) 638-8972 toll free, U.S. only
   (301) 436-6829 FAX
   Email: 9-AMC-chartsales@faa.gov
   http://chartmaker.ncd.noaa.gov
   or your local chart agent: http://chartmaker.ncd.noaa.gov/nsd/states.html

2. Available Internet: Via http://www.nws.noaa.gov/om/index.html
   Or from your local National Weather Service Forecast Office.

3. Superintendent of Documents
   P.O. Box 371954
   Pittsburgh, PA 15250-7954
   (202) 512-1800 (7:30am-4:30pm EST)
   (202) 512-2250 FAX
   http://www.gpo.gov
   http://www.nws.noaa.gov/om/mwl/mwl.htm
   (Distributed free to ships in VOS program)

4. (Printed copies available only to ships participating in U.S. VOS program)
   web version http://www.nws.noaa.gov/om/marine/home.htm
   National Weather Service
   Voluntary Observing Ship Technical Lead
   Robert “Luke” Luke
   NDBC Bldg #1100
   Stennis Space Center, MS 39529
   1-228-688-1457 1-228-688-3153 (fax)
   robert.luke@noaa.gov
   http://www.vos.noaa.gov

5. Joint Publication of National Weather Service and Naval Oceanography Command
Currently out of date, out of print, will no longer be available
Tim Rulon, NOAA
Marine Communications Program Manager
National Weather Service W/OS21
1325 East-West Highway
Silver Spring, MD 20910
1-301-713-1677 x128 1-301-713-1520 (fax)
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6. (Some publications available only to ships participating in U.S. VOS program)
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7. Radio Technical Commission for Maritime Services (RTCM)
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(703)-684-4481
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http://www.navcen.uscg.gov/marcomms/marcomms.htm

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http://www.nws.noaa.gov/pr/hq/itic.htm

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13. Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
(202) 512-1800 (7:30am-4:30pm EST)
(202) 512-2250 FAX
http://www.gpo.gov
(NIMA product distribution is presently in a transition process from National Ocean Service to GPO)

14. Defense Supply Center-Richmond, Customer Assistance
ATTN: Product Center 9
8000 Jefferson Davis Highway
Richmond, VA 23297-5337
1-800-826-0342
http://164.214.2.59:80/Navigation/ntm/index.cfm

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
http://www.wmo.ch/web/catalogue/

16. http://www.ccg-gcc.gc.ca/mcts-sctm/ramn_e.htm
RAMN's may be purchased at any Canadian Hydrographic Service Authorized Chart Dealer.

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(3) 162.475 mHz
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(5) 162.450 mHz
(6) 162.500 mHz
(7) 162.525 mHz

Channel numbers, e.g. (WX1, WX2) etc. have no special significance but are often designated this way in consumer equipment. Other channel numbering schemes are also prevalent.

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.

The NOAA Weather Radio network provides near continuous coverage of the coastal U.S, Great Lakes, Hawaii, and populated Alaska coastline. Typical coverage is 25 nautical miles offshore, but may extend much further in certain areas.