

**Icom America**

04/27/07

# M802 Channels

## HF Marine Transceiver

Your new Icom M802 has 160 user programmable marine channels in addition to the ITU channels, most of which have been preprogrammed by Icom America. These channels have been programmed to best reflect the needs of boaters throughout the United States. These user channels can be reprogrammed by you, the user. A list of the preprogrammed channels is included. Also included is a procedure you can use to reprogram these channels to best reflect your operating needs, as well as an article explaining SSB channels and frequencies.

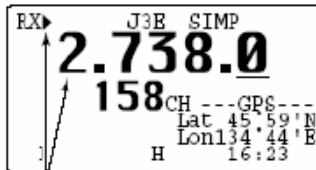


## IC-M802 Frequency Programming

### Frequency Selecting

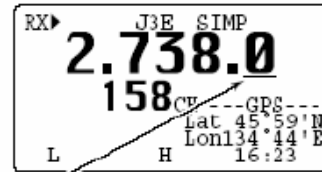
#### ◆ Using the channel selector

- ① Select a channel which is programmed near the frequency you want to receive.
- ② Push [RX CLAR] to select the frequency selection mode.  
•"▶" appears in the display.



"▶" and frequency show that the frequency can be changed.

- ③ Rotate [GRP] to select the digit for tuning.  
•Under-bar shows the selected digit.



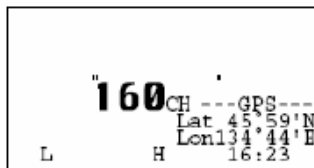
The under-bar is moved by rotating [GRP].

- ④ Rotate [CH] to tune the frequency.  
•Pushing [▲]/[▼] on the microphone also tunes the frequency.
- ⑤ Repeat steps ③ and ④ to complete the frequency selection.
- ⑥ To return to the previous frequency, push [RX CLAR].  
•"▶" disappears.

#### ◆ Using the keypad

**CAUTION:** A frequency can be programmed into a user channel by pushing and holding [ENT] for 1 sec. after entering a frequency. An ITU simplex frequency can only be programmed on a temporary basis. Keypad entry should be used only on spare (or blank) channels.

- ① Rotate [GRP] and [CH], or enter a 1 to 4 digit number via the keypad, then push [ENT] to select the memory channel to be used for general coverage use.



When a blank channel is selected, operating frequency, mode and channel name do not appear.

- ② Push [RX CLAR] to select the frequency selection mode.  
•"▶" appears in the display.
- ③ Enter 4 to 6 digits of the desired frequency via the keypad.
- ④ Push [ENT] momentarily to input the frequency.  
•DO NOT hold [ENT] for more than 1 sec., otherwise the frequency will be programmed into the channel.

#### [EXAMPLE]: Setting 12.3450 MHz

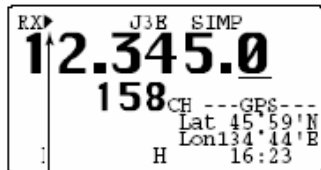
Select blank channel.	
Push [RX CLAR]	▶
[1 NR]	1
[2 SOL], [3 SCAN], [4 SP], [5 AGO]	1.234.5
[0 DIM]	12.345.0
[ENT]	RX▶ J3E SIMP 12.345.0 160 CH ---GPS--- Lat 45°59'N Lon 134°44'E 16:23

•The set frequency can be cleared when [RX CLAR] is pushed while setting.

## Programming a Frequency

### ◆ Receive frequency

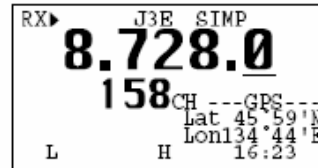
- ① Select the desired channel to be programmed.  
•Channel 1 to 160 (maximum) are programmable.
- ② Push [RX CLR] to select the frequency selection mode.



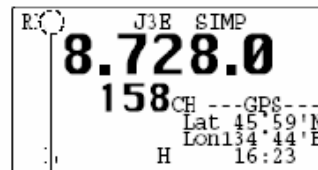
"RX" indicator appears.

- ③ Enter 4 to 6 digits of the desired frequency via the keypad.  
•Or rotate [GRP] and [CH] to change the frequency.  
•Pushing [▲]/[▼] on the microphone also tunes the frequency.

- ④ Push [MODE SET] several times to select the desired operating mode (type of emission).



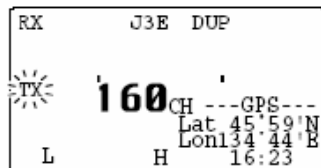
- ⑤ Push [ENT] for 1 sec. to program the user channel.  
•3 beeps sound and "RX" disappears.



"RX" indicator disappears when programming is completed.

### ◆ Transmit frequency

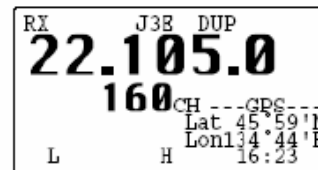
- ① Select the desired channel to be programmed.
- ② Push [TX TRF].



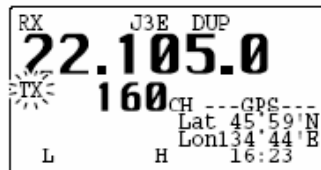
"TX" indicator blinks.

- ③ Enter the desired 5 or 6 digit frequency via the keypad.  
•[GRP] and [CH], as well as [▲]/[▼] on the microphone cannot be used.

- ④ Push [ENT] for 1 sec. to program the user channel.  
•3 beeps sound.



"TX" indicator disappears.



**Table A: User Channels**

Ch. N°.	Receive Freq.	Ship Transmit Freq.	MODE	Comment	Channel Name
1	2182.0	2182.0	USB	Distress	LOCAL DISTRESS (Intl Ch)
2	4125.0	4125.0	USB	SOS 4S	DISTRESS CALLS
3	6215.0	6215.0	USB	SOS 6S	DISTRESS CALLS
4	8291.0	8291.0	USB	SOS 8S	DISTRESS CALLS
5	12290.0	12290.0	USB	SOS 12S	DISTRESS CALLS
6	16420.0	16420.0	USB	SOS 16S	DISTRESS CALLS
7	2670.0	2670.0	USB	USCG LCL	USCG WX & Working
8	4426.0	4134.0	USB	USCG 424	USCG WX & Working
9	6501.0	6200.0	USB	USCG 601	USCG WX & Working
10	8764.0	8240.0	USB	USCG 816	USCG WX & Working
11	13089.0	12242.0	USB	USCG1205	USCG WX & Working
12	17314.0	16432.0	USB	USCG1625	USCG WX & Working
13	2500.0	Rx Only	AM	WWV 2	WWV Time/Noise Check RX
14	5000.0	Rx Only	AM	WWV 5	WWV Time/Noise Check RX
15	10000.0	Rx Only	AM	WWV 10	WWV Time/Noise Check RX
16	15000.0	Rx Only	AM	WWV 15	WWV Time/Noise Check RX
17	20000.0	Rx Only	AM	WWV 20	WWV Time/Noise Check RX
18	3330.0	Rx Only	USB	CHU 3	CHU Canada Time/Check RX
19	7335.0	Rx Only	USB	CHU 7	CHU Canada Time/Check RX
20	14670.0	Rx Only	USB	CHU 14	CHU Canada Time/Check RX
21	4369.0	4077.0	USB	WLO 405	Phone Service / Radio Check
22	8788.0	8264.0	USB	WLO 824	Phone Service / Radio Check
23	8806.0	8282.0	USB	WLO 830	Phone Service / Radio Check
24	13110.0	12263.0	USB	WLO 1212	Phone Service / Radio Check
25	13152.0	12305.0	USB	WLO 1226	Phone Service / Radio Check
26	17260.0	16378.0	USB	WLO 1607	Phone Service / Radio Check
27	17362.0	16480.0	USB	WLO 1641	Phone Service / Radio Check
28	19773.0	18798.0	USB	WLO 1807	Phone Service / Radio Check
29	22804.0	22108.0	USB	WLO 2237	Phone Service / Radio Check
30	26151.0	25076.0	USB	WLO 2503	Phone Service / Radio Check
31	4405.0	4113.0	USB	KLB 417	Phone Service / Radio Check
32	8731.0	8207.0	USB	KLB 805	Phone Service / Radio Check
33	13101.0	12254.0	USB	KLB 1209	Phone Service / Radio Check
34	17311.0	16429.0	USB	KLB 1624	Phone Service / Radio Check

Ch. N°.	Receive Freq.	Ship Transmit Freq.	MODE	Comment	Channel Name
35	2054.0	Weather Charts	USB	WXFX AK	Weather Fax Kodiak, Alaska
36	4298.0	Weather Charts	USB	WXFX AK	Weather Fax Kodiak, Alaska
37	8459.0	Weather Charts	USB	WXFX AK	Weather Fax Kodiak, Alaska
38	12412.5	Weather Charts	USB	WXFX AK	Weather Fax Kodiak, Alaska
39	4344.1	Weather Charts	USB	WXFX PAC	Weather Fax Pt. Reyes, CA
40	6451.1	Weather Charts	USB	WXFX PAC	Weather Fax Pacific
41	8680.1	Weather Charts	USB	WXFX PAC	Weather Fax Pt. Reyes, CA
42	12784.1	Weather Charts	USB	WXFX PAC	Weather Fax Pt. Reyes, CA
43	17149.3	Weather Charts	USB	WXFX PAC	Weather Fax Pt. Reyes, CA
44	22525.1	Weather Charts	USB	WXFX PAC	Weather Fax Pt. Reyes, CA
45	9980.6	Weather Charts	USB	WXFX HI	Weather Fax Honolulu, HI
46	11088.1	Weather Charts	USB	WXFX HI	Weather Fax Honolulu, HI
47	16133.1	Weather Charts	USB	WXFX HI	Weather Fax Honolulu, HI
48	4235.0	Weather Charts	USB	WXFX ATL	Weather Fax Boston, MA
49	6338.6	Weather Charts	USB	WXFX ATL	Weather Fax Boston, MA
50	9108.1	Weather Charts	USB	WXFX ATL	Weather Fax Boston, MA
51	12748.1	Weather Charts	USB	WXFX ATL	Weather Fax Boston, MA
52	19534.1	Weather Charts	USB	WXFX ATL	Weather Fax Atlantic
53	13503.1	Weather Charts	USB	WXFX ATL	Weather Fax Atlantic
54	4316.0	Weather Charts	USB	WXFX GLF	Weather Fax New Orleans
55	8502.0	Weather Charts	USB	WXFX GLF	Weather Fax New Orleans
56	12788.0	Weather Charts	USB	WXFX GLF	Weather Fax New Orleans
57	17144.1	Weather Charts	USB	WXFX GLF	Weather Fax New Orleans
58	11120.1	Weather Charts	USB	WXFX UAF	Weather Fax US Air Force
59	10553.1	Weather Charts	USB	WXFX AUS	Weather Fax Australia
60	11028.0	Weather Charts	USB	WXFX AUS	Weather Fax Australia
61	13548.2	Weather Charts	USB	WXFX NZL	Weather Fax New Zealand

Ch. N°.	Receive Freq.	Ship Transmit Freq.	MODE	Comment	Channel Name
62	5975.0	Receive Only	AM	BBC 5	BBC World Service News
63	11835.0	Receive Only	AM	BBC 11	BBC World Service News
64	15190.0	Receive Only	AM	BBC 15	BBC World Service News
65	9755.0	Receive Only	AM	CBC NEWS	CBC Radio Canada News
66	15290.0	Receive Only	AM	V of A	Voice of America News
67	12133.5	Receive Only	USB	NPR INTL	NPR International
68	5547.0	Listen Only	USB	AIR EM 6	Airlines (Life / Death)
69	8843.0	Listen Only	USB	AIR EM 8	Airlines (Life / Death)
70	13300.0	Listen Only	USB	AIR EM13	Airlines (Life / Death)
71	10493.0	Listen Only	USB	FEMA	FEMA (Listen Only)
72	8971.0	Listen Only	USB	CGA 897	US Coast Guard Aircraft
73	8983.0	Listen Only	USB	CGA 898	US Coast Guard Aircraft
74	13270.0	Listen Only	USB	TWR WX E	East Coast Weather
75	13282.0	Listen Only	USB	TWR WX W	West Coast Weather
76	2638.0	2638.0	USB	S-S 2638	2 MHz Ship-to-Ship
77	4146.0	4146.0	USB	Ship 4A	Ship-to-Ship "4 Alpha"
78	4149.0	4149.0	USB	Ship 4B	Ship-to-Ship "4 Bravo"
79	4417.0	4417.0	USB	Ship 4C	Ship-to-Ship "4 Charlie"
80	4003.0	4003.0	USB	S-S 4003	4 MHz Ship-to-Ship
81	4006.0	4006.0	USB	S-S 4006	4 MHz Ship-to-Ship
82	4009.0	4009.0	USB	S-S 4009	4 MHz Ship-to-Ship
83	4012.0	4012.0	USB	S-S 4012	4 MHz Ship-to-Ship
84	4015.0	4015.0	USB	S-S 4015	4 MHz Ship-to-Ship
85	4018.0	4018.0	USB	S-S 4018	4 MHz Ship-to-Ship
86	4021.0	4021.0	USB	S-S 4021	4 MHz Ship-to-Ship
87	4024.0	4024.0	USB	S-S 4024	4 MHz Ship-to-Ship
88	4027.0	4027.0	USB	S-S 4027	4 MHz Ship-to-Ship
89	4030.0	4030.0	USB	S-S 4030	4 MHz Ship-to-Ship
90	4051.0	4051.0	USB	S-S 4051	4 MHz Ship-to-Ship
91	4060.0	4060.0	USB	S-S 4060	4 MHz Ship-to-Ship
92	6224.0	6224.0	USB	Ship 6A	Ship-to-Ship "6 Alpha"
93	6227.0	6227.0	USB	Ship 6B	Ship-to-Ship "6 Bravo"
94	6230.0	6230.0	USB	Ship 6C	Ship-to-Ship "6 Charlie"
95	6516.0	6516.0	USB	Ship 6D	Ship-to-Ship "6 Delta"
96	6212.0	6212.0	USB	S-S 6212	6 MHz Ship-to-Ship
97	8294.0	8294.0	USB	Ship 8A	Ship-to-Ship "8 Alpha"
98	8297.0	8297.0	USB	Ship 8B	Ship-to-Ship "8 Bravo"
99	8101.0	8101.0	USB	S-S 8101	8 MHz Ship-to-Ship
100	8104.0	8104.0	USB	S-S 8104	8 MHz Ship-to-Ship
101	8107.0	8107.0	USB	S-S 8107	8 MHz Ship-to-Ship
102	8110.0	8110.0	USB	S-S 8110	8 MHz Ship-to-Ship
103	8116.0	8116.0	USB	S-S 8116	8 MHz Ship-to-Ship
104	8119.0	8119.0	USB	S-S 8119	8 MHz Ship-to-Ship

Ch. N°.	Receive Freq.	Ship Transmit Freq.	MODE	Comment	Channel Name
105	8122.0	8122.0	USB	AMIGO	Amigo Net (Don's Wx)
106	8125.0	8125.0	USB	S-S 8125	8 MHz Ship-to-Ship
107	8131.0	8131.0	USB	S-S 8131	8 MHz Ship-to-Ship
108	8137.0	8137.0	USB	CARIB WX	Caribbean WX Center Net
109	8152.0	8152.0	USB	CRUZHIMR	Cruzheimers Net Summer
110	8146.0	8146.0	USB	CRUZ ALT	Cruzheimers Net Alt Summer
111	8164.0	8164.0	USB	CRUZ ALT	Cruzheimers Net Alt Summer
112	6227.0	6227.0	USB	CRUZHIMR	Cruzheimers Net Winter
113	6224.0	6224.0	USB	CRUZ ALT	Cruzheimers Net Alt Winter
114	6230.0	6230.0	USB	CRUZ ALT	Cruzheimers Net Alt Winter
115	8167.0	8167.0	USB	PANAMA	Panama Net
116	8188.0	8188.0	USB	NW CARIB	NW Caribbean Net
117	12353.0	12353.0	USB	SHIP 12A	Ship-to-Ship "12 Alpha"
118	12356.0	12356.0	USB	SHIP 12B	Ship-to-Ship "12 Bravo"
119	12359.0	12359.0	USB	SHIP 12C	"12 Charlie" (Herb's Wx)
120	16528.0	16528.0	USB	SHIP 16A	Ship-to-Ship "16 Alpha"
121	16531.0	16531.0	USB	SHIP 16B	Ship-to-Ship "16 Bravo"
122	16534.0	16534.0	USB	SHIP 16C	Ship-to-Ship "16 Charlie"
123	18825.0	18825.0	USB	SHIP 18A	Ship-to-Ship "18 Alpha"
124	18828.0	18828.0	USB	SHIP 18B	Ship-to-Ship "18 Bravo"
125	22159.0	22159.0	USB	SHIP 22A	Ship-to-Ship "22 Alpha"
126	22162.0	22162.0	USB	SHIP 22B	Ship-to-Ship "22 Bravo"
127	25100.0	25100.0	USB	SHIP 25A	Ship-to-Ship "25 Alpha"
128	25103.0	25103.0	USB	SHIP 25B	Ship-to-Ship "25 Bravo"
129	3696.0	3696.0	LSB	BAHAMAS	Bahamas Wx Net Ham
130	3815.0	3815.0	LSB	W CARIB	WX Caribbean Net Ham
131	3820.0	3820.0	LSB	BAYof IS	Bay of Islands Net Ham
132	3856.0	3856.0	LSB	TACO 385	Taco Net Ham
133	3930.0	3930.0	LSB	PR/VI WX	PR / VI Wx Net Ham
134	3964.0	3964.0	LSB	EC WW 39	EC Waterway Net Ham
135	3968.0	3968.0	LSB	SONRISA	Sonrisa Net Ham
136	7158.0	7158.0	LSB	CARIBNET	Caribbean Net Ham
137	7163.0	7163.0	LSB	CARIB WX	Caribbean WX Net Ham
138	7185.0	7185.0	LSB	BARBADOS	Barbados Net Ham
139	7197.0	7197.0	LSB	SPACIFIC	South Pacific Net Ham
140	7200.0	7200.0	LSB	TACO 720	Taco Net Ham

Ch. N°.	Receive Freq.	Ship Transmit Freq.	MODE	Comment	Channel Name	
141	7238.0	7238.0	LSB	BAJA 723	Baja Calif. Net	Ham
142	7250.0	7250.0	LSB	GORDO	Gordo Net	Ham
143	7260.0	7260.0	LSB	BAJA 723	Baja Calif. Net	Ham
144	7268.0	7268.0	LSB	EC WW 72	EC Waterway Net	Ham
145	7270.0	7270.0	LSB	S ATLNTC	South Atlantic Net	Ham
146	7285.0	7285.0	LSB	HAWAII A	Hawaii AM Net	Ham
147	7290.0	7290.0	LSB	HAWAII P	Hawaii PM Net	Ham
148	7292.0	7292.0	LSB	FLORIDA	Florida Net	Ham
149	7294.0	7294.0	LSB	CHUBASCO	Chubasco Net	Ham
150	14285.0	14285.0	USB	CA S PAC	CA - S Pacific Net	Ham
151	14300.0	14300.0	USB	HAM 1430	Ham Nets	Ham
152	14303.0	14303.0	USB	CA HI	CA - Hawaii Net	Ham
153	14313.0	14313.0	USB	HAM SHIP	Hams on Ships	Ham
154	14325.0	14325.0	USB	HUR'CANE	Hurricane Net	Ham
155	14330.0	14330.0	USB	GUNKHOLE	Gunkholers Net	Ham
156	14340.0	14340.0	USB	MANANA	Mañana Net	Ham
157	21325.0	21325.0	USB	ATLANTIC	Atlantic Net	Ham
158	21390.0	21390.0	USB	HALO	Halo Net	Ham
159	21402.0	21402.0	USB	PACIFIC	Pacific Net	Ham
160	28400.0	28400.0	USB	HAM 2840	Ham Net	Ham

Note: Ham channels are listen-only without the proper class FCC Amateur Radio Service license.



## **UNDERSTANDING YOUR SSB CHANNELS AND FREQUENCIES**

By Gordon West, CMET

Of the nearly 1000 SSB channels pre-stored in your SSB radio, only a hundred or so can actually lead to meaningful reception. Those “hot 100” channels are likely pre-loaded in user programmable memory (UPM), and Gordo explains how to dial in these most-important frequencies....

### **NAVIGATING YOUR SSB**

Your marine single sideband transceiver (transmitter and receiver combined in one unit) operates on frequencies in the shortwave spectrum between 2 MHz and 26 MHz. These short wavelength frequencies refract radio signals off the ionosphere, reflect off sea water, and may easily skip hundreds and thousands of miles around the earth.

Marine single sideband channels and frequencies are managed by the International Telecommunications Union (ITU). Included among these are all the emergency distress channels for the Global Maritime Distress Safety System (GMDSS). ITU’s stewardship of these channels ensures that a marine SSB radio purchased anywhere in the world will have the same international safety and distress channels as all other SSB’s. As a result, all SSB radios can be used anywhere in the world, from the Med, the Caribbean, or the South Seas to the Bering Strait.

Here is a simple formula to figure an approximate range of reception.

MHz x 100 = expected minimum range

MHz x 200 = expected maximum range

Marine SSB channels, and their approximate range, are listed here:

2 MHz	0-200 miles	very short range, local
4 MHz	400-800 miles	popular race and regatta channels
6 MHz	600-1200 miles	excellent skywave, short range
8 MHz	800-1600 miles	medium range, day and night
12 MHz	1200-2400+ miles	long range "high seas", days and evenings
16 MHz	1600-3200+ miles	long range "high seas", days
22 MHz	2200+ miles	very long range, days
26 MHz	2600 + miles	few skywaves until 2009

Most marine SSB transceivers are loaded with all worldwide ITU channels, identified with 3 or 4 digit designators beginning at 401, and ending at 2510. RARELY will you hear anything but static. But within each ITU BAND are specific marine SSB channels. While some are simple "talk or listen" (SIMPLEX) channels sharing a single frequency, most are simultaneous "talk and listen" (DUPLEX) channels made up of closely spaced but separate transmit and receive frequencies.

Most DUPLEX ITU channels, such as ITU no. 411 and ITU no. 2203, are associated with major shore stations and telephone interconnect facilities. Domestic and international GMDSS rescue agencies, including the US Coast Guard, use a duplex channel in each band for weather broadcasting and routine communications. While competition with global sat phone networks has pushed most of the telephone interconnect stations off the air, we still have one powerful USA Public correspondence station, WLO, in Mobile, Alabama with companion

transmission and reception near Seattle (KLB), that can receive SSB transmissions from subscribers sailing the Atlantic and Pacific Oceans north of the equator and connect them with any telephone in the world.

SIMPLEX ITU channels have been "split" to offer ship-to-ship and ship-to-shore communications. The US Coast Guard and other rescue agencies throughout the world listen for transmissions on those ITU simplex channels that end with "50".

ITU 450

ITU 650

ITU 850

ITU 1250

ITU 1650

Ship-to-ship simplex channels end with ITU numbers like "51", "52", and "53", i.e. 451, 851, and 1252. But then again, ship-to-ship channels may also be listed by frequency in kilohertz, and then AGAIN, with a designator, like "4 ALPHA", and then again, "4-1".

CONFUSED WITH ALL THESE NUMBERS? You go to the instruction manual, and nearly go over the edge when popular ship-to-ship channel "4 ALPHA", regularly used by race committees, is listed as "bus and op" (Business and Operational). Say what?

## **LOGICAL USER CHANNELS**

SSB Manufacturer ICOM, with their flagship radios the M-802 and M-710, realized the frustrating confusion arising from the huge number of channels available, where they all fit, and who needs which frequencies when cruising to far off places. A list of the top 160 USER CHANNELS was recently developed by marine radio experts coast-to-coast, and compiled by Rick Waedekin, Sr., ICOM America technical specialist for SSB installations. This list prioritizes and makes sense out of those channels that will regularly lead to meaningful radio reception, with instant access to ship-to-ship and ship to Coast Guard channels in case of an emergency. The national Marine Electronics Association (NMEA) recently published this list of 160 important SSB frequencies in an effort to standardize a "user programmable load" for use in any manufacturer's model of marine SSB equipment.

The user programmable load normally begins at "user channel" 1, and may end at "user channel" 100 or "user channel" 160. The user channel "load" is normally stored after the succession of ITU channels 4 MHz through 26 MHz duplex.

## **THE NEW "USER CHANNEL" LINEUP**

Refer to table "A" 1-160 channels and their associated frequencies, in this article. Cross reference YOUR user memory programmable load with THIS to better understand how you may already have an excellent frequency lineup but in a slightly different order than what appears here.

**Channel 1:** 2182 kHz This is an ultra short range distress channel likely to have no further range than VHF Channel 16.

**Channels 2-6:** These are simplex distress channels monitored continuously by our US Coast Guard at various locations throughout the country. Medium range frequency 8291 kHz, and longer range frequency 12,290 kHz, are best when cruising well offshore.

**Channels 8-12:** Here is where you can tune in US Coast Guard automated weather broadcasts. These are not continuous, so dial around on the hour and half-hour until you pick up a local or distant weather report.

**Channel 13-20:** These are American and Canadian powerful time signal frequencies. This is a good way to check your antenna's reception capability. 10,000 kHz (10 MHz) and 15,000 kHz (15 MHz) time signals from WWV should come in relatively loud and clear throughout the USA during the day and evening. Cycle off refrigeration, battery charger, florescent lights, and small motors to see how reception can improve with noise makers shut down!

**Channels 21-34:** This is the last remaining high seas voice long range telephone service on the air in the United States. Station WLO transmits centrally from Mobile, Alabama serving the Atlantic and Caribbean areas and station KLB transmits from the Northwest to extend reception out into the Pacific. For more information on their regular weather forecasts on these channels, go to

[www.WLORadio.com](http://www.WLORadio.com) WLO welcomes radio checks.

**Channels 35-61:** These are your weather facsimile frequencies. "PAC" is for Pacific coverage, "ATL" for the Atlantic, "GUL" for the Gulf. Alaska is "AK" and Hawaii is "HI". These are not continuous weather fax signals, but at least 4 times a day you should hear activity for up to an hour. Listen for twice a second rhythmic sweeping of the weather fax signal. A simple patch cable takes your SSB audio output to your laptop's sound card INPUT, and running a program like MSCAN ([www.MSCAN.com](http://www.MSCAN.com)) makes that twice a second sound turn into lines of weather fax imagery! Your laptop does all the work without the need of an expensive "black box" between your computer and your SSB's audio output.

**Channels 62-67:** These channels contain randomly selected international shortwave broadcast stations, many using the English language. Your SSB can also change to other global broadcasters in case you want to listen to other programming coming in from around the world. These channels are a great way to stay up-to-date on current events when you're far from home.

**Channel 68-75:** These are fascinating aeronautical channels that receive broadcasts from airplanes, local and thousands of miles away. Many times they will transmit observed weather, so you have a bird's eye view of what the pilots are seeing all around you.

**Channels 76-128:** These are ship-to-ship marine SSB channels. Authorized shore stations may also use these channels as well. This

could allow you to talk thousands of miles away at sea to other boats, or to your local yacht club if they have the marine SSB station license.

Ship-to-ship channels labeled with "A", "B", and "C" are primary racing channels, in regular use by long range cruising mariners, as well as race committees.

The FCC authorizes shared use of 4 MHz and 8 MHz radio channels -- these frequencies are spelled out in kHz. These ADDITIONAL ship-to-ship channels are popular in congested coastal and Caribbean radio-traffic areas where the "A", "B", "C" primary ship-to-ship channels are regularly tied up.

Remember the x100 rule about how far your radio signals will bounce:

4000 kHz = 4 MHz = 400 to 800 miles

8000 kHz = 8 MHz = 800 to 1600 miles

12000 kHz = 12 MHz = 1200 to 2400 miles

If you select a ship-to-ship or ship-to-shore channel too high in frequency for short and medium range communications, your signal will actually skip over the station you want to contact. 8 MHz and 12 MHz are the primary medium range and long range ship-to-ship channels. 4 MHz and 6 MHz are primarily the short to medium range ship-to-ship channels.

**Channels 129-160:** *DON'T TRANSMIT!* Unless it is a true life and death emergency, do not transmit on these HAM RADIO channels until you have passed your General Class license exam. No more Morse code test!

Ham radio channels, pre-loaded in your marine SSB allow you to LISTEN and glean valuable weather information. The powerful shore-side net control stations are easily heard over hundreds, perhaps thousands of miles, giving out great weather forecasts and taking reports from licensed ham operators from around the country -- sometimes from around the world.

You must be a General, Advanced, or Extra Class licensed ham radio operator to transmit on these frequencies. However, in an emergency, ham radio operators would always take your distress traffic if you simply say your vessel name and your FCC assigned ship station call letters.



## **WHERE ARE THESE CHANNELS?**

To take advantage of these pre-memorized user channels, you first need to find where the user channels have been stored in YOUR marine SSB. Try this: On your keypad, type **1-0-0 ENT**. You should be in the middle of the user channel set, at user channel 100. Next, verify that YOUR user channels are similar to those in table A. If they are abridged and completely different, your local marine electronics dealer needs to provide a computer upload.

If just a few channels are different, follow your SSB instruction book for writing over an existing memory channel frequency. Most likely, you will be adding 5-10 new channels discovered in Table A, and writing over, or correcting 5-10 existing channels not found in your memory.

USER CHANNELS are specifically field re-programmable, allowing you to add a custom lineup of popular SSB frequencies in order of their use. The 3 digit and 4 digit ITU channels are frozen, and you cannot alter them – only USER programmable channels may be written over.

Finally, tune in the time signals, channels 13-20, and check for reception. These signals are on the air 24 hours a day and provide a ready reference to make sure on board noise is not ruining reception. Be sure to turn off any Danfoss refrigeration controllers – they can block most strong signals with a Morse code type sound. Just be sure to turn the fridge back on afterward!

Enjoy user programmable memory on your SSB and keep this list handy. (See Table A, USER Channel list)

FCC Rule Part 80.13(b) requires all marine SSB installations to be licensed with call letters. Please contact Radio School at 714 549 5000 Monday to Thursday 10AM-4PM for info and/or assistance with licensing.

For ham radio licensing information please contact Radio School at 714 549 5000 Monday to Thursday 10AM-4PM.

For US Coast Guard Voice and Weather Fax schedule: go to <http://www.ominous-valve.com/uteworld.html> and look for a large text file called uscg-fax.txt.

### **HOW TO WRITE OVER ANY FREQUENCY**

If there is a special frequency that you would like to program in your user channel list, IT IS EASY!

First, dial up a channel you may never need, like channels 59, 60, and 61 (Australia weather fax). Or you can write over a weather fax channel on the opposite coast! You can always write-back any channel you wish to restore, too! There are no limits on write-over's.

Next, consult the section of this document on programming a new frequency in the user channel list. This will allow you to easily write over any of the 1-160 channels that may not be as important as that new frequency you wish stored in user memory! USER CHANNELS are YOUR channels of choice, for easy recall and easy storage. Follow the instructions to customize your user channel list of popular channels!