Notes on operation of the ICOM IC M802:

- It has been noted that the ICOM IC M802 does not like to send DSC messages in low power. For some reason the Antenna tuner cannot tune and results in High reflected RF waves (SWR). This results in improper transmission of the digital calling message. No similar problem has been noted when the radio is set to medium or high power.
- 2. Since there is no option to press the tune button when sending a DSC message. You should always remain in Auto tuning as a result. If your radio continues to have problems tuning the 2177.0 KHz during a DSC message, try programming 2177.0 KHz in normal mode and press the tune button before going to DSC. The tuner should be sitting where it needs to be for the 2177.0 KHz and may function better.
- 3. All of the DSC calling frequencies are duplex except 2177.0KHz ("Ship"). That means that if you were to try to call another vessel on other than 2177.0 KHz, on a duplex frequency, the other shipboard radio is listening on a different frequency. If you need a longer range frequency than 2177.0KHz, you will have to program a higher frequency to be simplex on all radios you plan to make DSC calls with. By inspection of the programmed DSC programmed Call frequencies you will see that there are 25 international Call frequencies and one ship frequency pre=programmed. The 802 is capable of only scanning 6 of those frequencies. Factory programmed DSC Scanned Frequencies include:

Т 2177.0	Т 6312.5	T 12577.5
R 2177.0*	R 6331.5*	R 12657.0*
Т 4208.о	T 8415.0	T 16805.0
R 4219.0*	R 8436.5*	R 16903.0*

* Scanned by receiver for calls. Ship to ship on Duplex frequencies will not hear the Transmitted frequency except on 2177.0KHz.

I have re-programmed my M-802 for simplex channels 2177.0, 4208.0, 6312.5, 8415.0, 12577.5, and 16805.0 khz, for DSC Scan frequencies, and programmed "Call Frequencies", (both transmit and receive frequencies for simplex channels). That means that when using DSC Watch Mode, I'm scanning those frequencies listening for "Routine" DSC calls from other boaters on higher frequencies than the 2177.0. This will extend the capability of using DSC calling various times of the day when 2177.0 will not reach the other boats. The downside is unless other boaters re-program their radios, I will only receive ship to ship calls on 2177.0 KHz.

ICOM IC – M802 Additions and Changes Planned for REV 2

Page 37 at end of section – If the channel being programmed is for receiving only (no transmitting allowed) program the transmitter frequency as follows:

- Press the [FREQ/CH] button until two frequencies are shown, one above the other. At this point they may or may not be the same frequency. The upper is the receive Frequency and the lower is the transmit frequency. Press the [TXF/TX] button.
- 2. Note: The <u>TX</u> in the middle left side of the [Function Display] will flash on and off.
- 3. Using the key pad, press [0]
- 4. The [Function Display] lower (smaller) number should now display **0**
- 5. Press and Hold the [ENT] button until the **<u>TX</u>** in the middle left side is removed.
- 6. The channel is now programmed for no transmit frequency.
- 7. Note in the upper part of the [Function Display] the <u>SIMP</u> and <u>DUP</u> Indications have been removed.

Page 39 at end of section:

Appendix I

HF Marine Operators (WLO Radio)

WLO Radio has taken over all US HF based Marine Operators and is available on many frequencies. To sign up with them call 334-665-5110. Give them a credit card number to keep on file so that if in an emergency you need to make a call you do not have to broadcast your credit card number around the world. They have had my card on file for years and will not charge you for anything but calls made.

WLO ITU CHANNELS

Channel Number	RX Frequency	TX Frequency
405	4369.0	4077.0
414	4396.0	4104.0
419	4411.0	4119.0
607	6519.0	6218.0
824		8264.0
829		8279.0
830		8282.0
1212	13110.0	12263.0
1225	13149.0	12302.0
1226	13152.0	12305.0
1607	17260.0	16378.0
1641	17362.0	16480.0
1647	17380.0	16498.0
2237	22804.0	22108.0

Contact Rene Stiegler of WLO radio for information and frequency information packs. WLO Radio also owns KLB radio in the Northwest.

PH: (334)665-5110, FX:(334)666-8339, or wloemail@aol.com or rene@shipcom.com

Modifications

Delete published procedure for Group Calls starting On Page 94

Insert:

Group DSC Call Procedure:

- 1. Press [DSC] button to go to the **DSC WATCH** display.
- Press [SET/MODE] button to go to the <u>DSC MENU</u>.
- 3. **NOTE**: Press [SET/MODE] button at any time to cancel the procedure and [FREQ/CH] button to move back one menu screen.
- 4. Rotate [CH] knob to select Group
- 5. Press [ENT] button to display Group Group ID menu
- 6. Select what Group the message will be sent to or input a Group MMSI number.
 - a. Group Ids always start with a "0"
 - b. **IF** there are Group addresses preprogrammed into radio
 - i. Rotate the [CH] knob to select the recipients Group MMSI.



>Manual Set

s/v Group m/v Group

Group – 3 Group – 4

****** Group ******* ----- Group ID ------

023456789

023456798

023456797

023456796

- ii. Press [ENT] button to continue to the **<u>Group</u> <u>Traffic frequency</u>** menu.
- c. **IF** no ID numbers are programmed or manual entry was selected
 - Manually enter the desired nine digit Group MMSI number via the numeric key pad starting with a "0".
 - ii. Press [ENT] button to continue to the
 <u>Group</u> <u>Traffic frequency</u> menu.

******* G	Group ******** Group ID
<u>0</u> _	
CH SEL	ENT OK

- 7. Rotate the [CH] knob to select the desired traffic frequency.
 - a. Press [ENT] button to continue to the <u>Group</u>
 <u>Call frequency</u> menu.
 - b. IF <u>Manual set</u> is selected, enter the nine digit Group ID.
 - Press [ENT] button to continue to the
 <u>Group</u> <u>Call frequency</u> menu.
- Rotate the [CH] knob to select the desired calling frequency and press [ENT] to display a summary of selected items.
 - a. IF Manual set was selected, enter the desired calling frequency and press [ENT] to display a summary of selected items on the Group Call menu.
- 9. The set up may now be saved by pressing [ENT] button or sent by pressing the [CANCEL/CALL] button.
- 10. Group <Calling> display.
- After the DSC message is sent, the display will shift to the <u><TRAFFIC></u> display with the traffic frequency displayed.
- 12. Voice communications may now commence.





RX	< Traffic > 4.146.0	J3E
	GPS 24 110	° 13' N ° 19'W
FREQ EXIT	16	5:23

Programming Change

The procedures in the book assume the channel is programmed so step 1, changing the mode does not work for a blank channel. The following procedure replaces step one and two and will work for both blank and programmed channel programming.

<u>Step 1 – Input the Receive Frequency & Mode of</u> <u>Operation</u>



The frequency is programmed in kHz for the IC – M802. That means if you are trying to program 15MHZ, you need to enter 15000.0.

- 1. Press the [CLAR/RX] button.
- 2. Note: The **b** in the upper left corner of the [Function Display].
 - a. IF ▶ is missing, use the transceiver is in closed mode. Use the Vulcan Mind Meld procedure on page 18 to change to open mode.
- 3. Using the key pad, press [1]; then [5]; then [0]; then [0]; then [0]; then [0].
- 4. The [Function Display] should display **<u>15.000.0</u>**
- 5. Press [ENT] momentarily. (If pressed to long and ▶ is removed, press [CLAR/RX] again.)
- 6. The mode of operation is displayed in the upper center of the [Function Display].
- 7. Press the [SET/MODE] button repeatedly until the desired mode is displayed. (WWV is AM, Marine band is USB, some HAM frequencies are LSB)
- Press and Hold the [ENT] button until the
 in the upper left corner of the [Function Display] is removed.
- 9. The channel is now programmed for 15000KHz (15MHz) frequency.

Now program another frequency for practice, 7233.5KHz.

- 1. Press the [CLAR/RX] button.
- 2. Note the ▶ in the upper left corner of the [Function Display].
- 3. Using the key pad, press [7]; then [2]; then [3]; then [3]; then [5]
- 4. The [Function Display] should show 7.233.5
- 5. Press [ENT] momentarily. (If pressed to long and ▶ is removed, press [CLAR/RX] again.)
- 6. The mode of operation is displayed in the upper center of the [Function Display].
- 7. Press the [SET/MODE] button repeatedly until LSB is displayed.
- Press and Hold the [ENT] button until the
 in the upper left corner of the [Function Display].
- 9. The channel is now programmed for Lower SideBand on frequency 7233.5KHz.

Step 2 – Input the Transmit Frequency

This step only needs to be completed if the transmit frequency is different than the receive frequency.

For many shore stations such as WLO radio, the marine telephone operator, the transmit frequency is different than the receive frequency. This is called duplex operation as opposed to simplex where the same transmit and receive frequency is used. One nice feature on the IC – M802 is that it automatically assumes transmit frequency is the same as the received frequency unless changed. On prior units to the IC – M802, transmit and receive must be programmed separately each time. (For the IC – M802, programming a simplex channel requires no further action than programming the receive frequency.)

Transmit programming example: For one WLO Radio channel, shipboards receive frequency is 8788.0KHz, and the transmit frequency is 8264.0kHz.

Note: The WLO radio frequencies are opposite of the ships frequencies. WLO's transmit frequency is 8788.0KHz, and their receive frequency is 8264.0kHz. This will allow us to hear them when they transmit and them to hear us when we transmit.

First program a Duplex channel to receive frequency to 8788.0KHz similar to above and then program the transmit frequency to 8264.0kHz:

 Press the [FREQ/CH] button until two frequencies are shown, one above the other. At this point they may or may not be the same frequency. (If the channel is blank, the proper display is the one with the channel number at the bottom of the display as opposed to the center.) The upper number is



Frequency Indication Display

- the receive Frequency and the lower, smaller number is the transmit frequency.
- 2. Press the [CLAR/RX] button.
- 3. Note: the ▶ in the upper left corner of the [Function Display].
- 4. Using the key pad, press [8]; then [7]; then [8]; then [8]; then [0]
- 5. The [Function Display] should show 8.788.0
- 6. Press [ENT] momentarily. (If pressed to long and ▶ is removed, press [CLAR/RX] again.)
- 7. The mode of operation is displayed in the upper center of the [Function Display].
- 8. Press the [SET/MODE] button repeatedly until the USB mode is displayed.
- 9. Press and Hold the [ENT] button until the ▶ in the upper left corner of the [Function Display] returns to only **RX** displayed.
- 10. The received channel is now programmed for 8788.0KHz frequency Upper SideBand mode simplex as noted at the upper right side of the [Function Display] with <u>SIMP</u>.

Now change the Transmit frequency to create a duplex Channel

8. Press the [TXF/TX] button.

- 9. Note: The <u>TX</u> in the middle left side of the [Function Display] will flash on and off.
- 10. Using the key pad, press [8]; then [2]; then [6]; then [4]; then [0]
- 11. The [Function Display] lower (smaller) number should now display 8.264.0
- 12. Press and Hold the [ENT] button until the **<u>TX</u>** in the middle left side is removed.
- 13. The channel is now programmed for 8264.0KHz frequency.
- 14. Note in the upper part of the [Function Display] the <u>SIMP</u> is now changed to <u>DUP</u> Indicating Duplex operation.

Another example of transmit frequency programming. Program: 8,798KHz.

- 1. Press the [TXF/TX] button.
- 2. Note the **TX** in the middle left side of the [Function Display] will flash on and off.
- 3. Using the key pad, press [8]; then [7]; then [9]; then [8]; then [0]
- 4. The [Function Display] lower (smaller) number should display 8.798.0
- 5. Press and Hold the [ENT] button until the **<u>TX</u>** in the middle left side is removed.
- 6. The channel is now programmed for 8798.0KHz frequency.
- 7. Note in the upper part of the [Function Display] the **<u>DUP</u>** Indicating Duplex Mode.

NOTE: Always Press the [THRU/TUNE] button before transmitting.

Step 3 – Input the Channel Label

A very nice feature the IC – M802 has is the ability to label your stations so they are easily recognizable as you dial through the frequencies. For example next month you may not remember that 15000.0 and 7.2233.5 are WWV and the Baja net respectively.

- 1. There are two displays
 - a. The Frequency Indication display has the receive frequency in large numbers in the middle of the display and the transmit frequency below the receive frequency. For Simplex operation the two frequencies will be the same while for duplex they will be different.



- b. The Channel Indication display shows the label with the channel number below. If no label has been entered, the Receive Frequency with the channel number below will be displayed.
- 2. Press the [FREQ/CH] button to display the label display if not shown.
- 3. Press [F] button.
- 4. Note: <u>F</u> in the upper right side of the [Function Display]
- Press [FREQ/CH] button to display the label input. The underscore/digit at the left most letter or blank will blinking. e.g. <u>W</u>WVH 25
- 6. The keypad may be used to enter the label.
- 7. Each number also creates letters. For example the 2 key if pressed once will insert a 2 on the display. Pressing again will display a capital A, again B, Again C, Again a, again b, again c, again 2.
- 8. **IF** the next letter you wish to enter is on a different key, you may start pressing that key after the first letter has been displayed.
- 9. **IF** the next letter is on the same key, e.g. A then B, you must move the flashing underscore over to the next letter with the [CH] knob before proceeding.

Examples:

Enter a label for the time standard WWVH that is an AM station transmitting on 25,000kHz.

For practice, enter WWVH 25M as that combination results in using all the techniques to enter the label. Label to enter: WWVH 25M

- 1. Press the [FREQ/CH] button to display the label display.
- 2. Press the [F] and then [FREQ/CH] button to edit the label.
- 3. Note: the flashing underscore/digit on the left side of the display.
- 4. Press keys [9], then [9] to display <u>W</u> on the [Function Display]
- 5. Rotate Clockwise the [CH] knob one click to move the cursor to the right one letter on the [Function Display]
- 6. Press keys [9], then [9] then to display the second <u>W</u>on the [Function Display]
- 7. Press keys [8], then [8], then [8], then [8] to display <u>V</u> on the [Function Display]
- 8. Press keys [4], then [4], then [4] to display <u>H</u> on the [Function Display]
- 9. Rotate clockwise the [CH] knob one click to move the cursor to the right one letter on the [Function Display]
- 10. IF there is already a letter in that position Press [1] key 6 time to show a blank [_].



1 Q Z q z (SPACE)

2 A B C a b c

3 D E F d e f

4GHIghi

5JKLjkl

6 M N O m n o

QZ

ABC

3SCAN Def

4 SP* GHI

5AGC*

GHI

6<mark>RF-G</mark> MNO



GRP CH

- 11. **IF** it is already a blank, rotate clockwise the [CH] knob one click to move the cursor to the right one additional letter on the [Function Display]
- 12. Press the [2] key to display a <u>2</u> on the [Function Display].
- 13. Press the [5] key to display a <u>5</u> on the [Function Display].
- 14. Press the keys [6], then [6] to display an <u>M</u> on the [Function Display].
- 15. Verify the display should read WWVH 25.
 - a. To change a wrong letter or number, use the [CH] knob to move to that digit again and re-enter the number.
- 16. Press and hold the [ENT] button until the flashing cursor disappears.

Special User Channel Programming Options

How to Clear a Channel

When you want to clear a channel from Memory, program the receive frequency of "0".

How to Create a Receive only Channel

When programming a "receive only" frequency such as WWV, radio stations etc. program the transmit frequency for "0".

DSC Calling



Trouble with email?

It seems like a lot of folks have issues with email. Email on HF is not as clean as when you are connected to the internet. Here are a few tips to help you get started for both sail Mail and Winlink.

- Review the Sailmail Primer: <u>http://www.sailmail.com/smprimer.htm</u> There are some excellent application information in Sailmail Primer and may solve all your issues.
- Get the internet mode working first as that will make sure your account is set up and you are using the proper password. {Select **Module** then **Internet Access**}
- It is critical that you pick the appropriate site for getting your email. Don't forget that this is really radio communications, not wire. If you cannot send and receive to the site, you will not get email from the site.

	🗧 Interne	Telnet Settings	
	File Edit	Connection Properties	
		Remote Callsign: WRD719	▼ Settings Delete New
		Remote Host: pop3.sailmail.com	
SailMail ->		Port: 50	
		Timeout (sec) 120	
		Local Callsign WDA5497	
		Password	
		Protocol: @ B2 C B1	
	TyData	✓ Include in Auto-check	
	TAData	Cancel OK	0/0 bytes
	1		1
	-		
	🐨 Interne	Telnet Settings 🛛 🛛 🔀	
	File Edit	Connection Properties	
	0 💿 	Remote Callsign: WL2K	Settings Delete New
Winlink>		Remote Host: Server.winlink.org	
		Port 8772	
		1 2.0 0114	
		Timeout (sec) 120	
		Lineout (sec)	
		Local Callsign AD 7%L	
		Iimeout (sec) 120 Local Callsign AD7%L Password MMM elfer	
	To Data	Iimeout (sec) 120 Local Callsign AD7XL Password MMT (Met) Protocol: © B2 C B1	
	-Tx Data	Iimeout (sec) 120 Local Callsign AD7XL Password AMIN affects Protocol: © B2 © B1 Include in Auto-check	0/0 bytes

Make sure the system is working:

1. The complete software package should have included: Airmail, Airmail's "Viewfax" fax/grib viewer, "icepac" propagation program files, and possibly SCS firmware updates and drivers for the PTC-Ilusb modem if applicable.

- With your 802 on and your computer running, note the frequency your radio is on. (Press [FREQ/CH] if need be to obtain the frequency display. Receive Frequency over the Transmit Frequency.)
- 3. Open Airmail
- 4. Select Module, then HF Terminal.
- 5. Does your frequency change on the 802?
- 6. If so, the computer is directly or via the modem controlling the IC M802.
 - a. If not you need to figure out how to get the computer to control the radio.
 - b. IF the radio's frequency is being controlled go to the next step.
- 7. Press [F8] on your computer to display the frequency Propagation chart
 - a. or select View and then Propagation (F8) via the menu.
 - b. If Propagation does not work, you are missing at least the Icepac propagation program files. Icepac is very important. You may also be missing other modes so get a complete download and start over.



- 8. If the chart comes up, make sure the correct Latitude and Longitude are displayed in the <u>From</u> <u>our location</u> section.
- 9. The best stations for your location should be at the top of the list, but it may not be the best so you will have to do some looking at other locations to make sure you have the best frequency for your location.
- 10. Look for a frequency that is indicating 100% reliability for your UTC time. (The time is marked at the top in UTC with a dark blue coloring of the hour block.)
- 11. Note which frequencies are at 100% then change the display to SNR by clicking on <u>SNR</u> in the upper right corner of the display.
- 12. Note the frequencies that were 100% when you were in the <u>Reliability</u> display and has the largest number for SNR.

- You can use the pull down on the transmit control screen to select the station and the frequency or double click in the <u>Propagation</u> display on the frequency (on the left side of the propagation chart.)
- 14. Listen to see if you can hear others getting mail.
 - a. Don't start till it is clear.
 - b. Most stations monitor several frequencies, but only do email one at a time so it may say busy.
 - c. If you can hear others getting email, you should be able to get email when they are done.
- 15. Press the [THRU/TUNE] button on the IC M802.
- 16. Press the green button to start email retrieval.
 - a. The transmitter should be going back and forth between **<u>RX</u>** and **<u>TX</u>** during the process.
 - b. The frequency should be the one you selected based on the **Propagation** chart.
- 17. If no response, try another frequency and/or station.

The Propagation chart is a best guess and not the only story behind HF radio communications. There are always things going on here on earth that effect HF communications that the program can not be aware of to provide the best guess information. Things for example as the heavy solar flares, storms, high noise levels in your marina etc. The calculations for the best station are based on the distance between your station and the email station only. So be patient!

I have found that my HF email here in Mexico seems to work best early morning and in the evening. I have never connected midday. That does not mean others do not because being able to connect has many variables as discussed above.

If you cannot get your email working, send me a note. I can try to help you via Skype, if I am in port and on the boat. Otherwise check with another boat in your harbor to see how their email is working and what stations/frequency they are using successfully.

Appendix XII – Improving DSC Calling for Cruisers

Discussion

Factory programming only includes one usable calling frequency, 2177.0KHz, for cruiser to cruiser communications. This is because all the other frequencies are duplex frequency intended for calling shore stations. 2177.0KHz is not a long range communications frequency. While a higher frequency might get you to the US from Mexico, 2177.0 KHz, may not make it across the Sea of Cortez during part of the day or night.

I stumbled across an article in the forum, SSCA Discussion Board. Notes by a fellow cruiser, John, KA4WJA on s/v Annie Laurie, make a lot of sense and will allow for better DSC usage. If you would like to read all of John's notes on the subject, go to the forum at:

http://www.ssca.org/forum/phpBB3/viewtopic.php?f=5&t=12613&p=70145#p70145

The Plan

John has been kind enough to authorize my use of his recommendations for the benefit of all cruisers. As a result, this appendix will remain on my web site even after the second revision of "ICOM IC M802 Made Simple for Cruisers" is released (planned for) next summer. The following is a quote from John on the SCCA forum:

"So, in my M-802, I have 2177.0, 4208.0, 6312.5, 8415.0, 12577.5, and 16805.0 khz, programmed as my DSC Scan frequencies, and in addition to the GMDSS-DSC frequencies, also programmed these in as "Call Frequencies", both transmit and receive (simplex channels).....

And, that means that when using DSC Watch Mode, I'm scanning those frequencies listening for "Routine" DSC calls....."

If the IC M802 is scanning for 2177.0, 4208.0, 6312.5, 8415.0, 12577.5, and 16805.0 khz and we are calling and receiving/sending acknowledgment on those frequencies, it will be possible to significantly increase our calling distance with the IC M802 DSC capability.

Issues

In order to effectively utilize DSC calls to other cruisers using John's approach, we must re-program both the channels scanned by the IC M802 and the programmed calling frequencies. This process will take about 15 to 20 minutes. If you have not programmed anything into your radio, this may bring up many questions. Should you have questions, feel free to contact me at <u>p-t_on_sunyside@live.com</u>.

Re-Program the ICOM IC M802

Re-programming the IC M802 to utilize simplex calling channels is easy. Re-programming of the radio will change both the transmit and receive frequencies to those listed as the transmit frequencies in the table. The 2177.0 channel is already a simplex channel and will be retained. Both the Scan Frequencies and Call frequencies must be changed.

A custom procedure specific for this change to the radio is provided below.

Delete the old Scan Frequencies

The Scan Frequency memory is full as the IC M 802 will only scan six frequencies and has been programmed for six frequencies by ICOM. The first procedure is to delete all the scanned duplex channels to allow re-programming the radio for simplex channels.

- 1. In DSC Watch press [SET/MODE] to display the DSC MENU.
- 2. Rotate the [CH] knob to select <u>Set up</u> and press [ENT].
- 3. Rotate the [CH] knob to select **<u>Scan frequency</u>** and press [ENT]
- 4. Rotate the [CH] knob to select (each of the duplex frequencies one at a time) and press [ENT].
- 5. Press and hold the [CE] until two beeps are heard and that memory location will be clear.
- 6. Repeat this procedure for all except the 2177.0 frequency.

Program the new simplex Scan frequencies

- 1. Rotate the [CH] knob to select <add> and press [ENT].
- 2. Using the Keypad, enter the desired label for the new frequency, e.g. 4MHz Ship, 6MHz Ship, 8MHz Ship etc.
- 3. Rotate the [CH] Knob to move to the TX:_____.KHz and enter the new frequency. {4MHz: 4,208.0; 6MHz: 6,312.5; 8MHz: 8,415.0; 12MHz: 12,577.5; 16MHz: 16,805.0}
- 4. Rotate the [CH] Knob to move to the RX: _ _ _ . _KHz and enter the same frequency.
- 5. Press [ENT] to save the scanned frequency.
- 6. Repeat this procedure for all five frequencies.
- 7. Note display should indicate <add> Memory full when all five scan frequencies have been added. (The six frequencies including the 2177.0 we did not erase.)
- 8. Press [SET/MODE] button to return to **DSC Watch.**

Delete the Duplex Calling Frequencies

Now re-program the calling frequencies the same way. While the Call frequency memory is not full, we would fill the memory before all the simplex channels are entered. So we will start by deleting the

INTER 4-1, 6-1, 8-1, 12-1 16-1 frequencies. Leaving the other frequencies programmed, e.g. INTER 4-2, 6-2, etc.

- 1. In DSC Watch press [SET/MODE] to display the DSC MENU.
- 2. Rotate the [CH] knob to select <u>Set up</u> and press [ENT].
- 3. Rotate the [CH] knob to select <u>Call frequency</u> and press [ENT]
- 4. Rotate the [CH] knob to select (INTER 4-1, 6-1, 8-1, 12-1 16-1 duplex frequencies one at a time for deletion) and press [ENT].
- 5. Press and hold the [CE] until two beeps are heard and that memory location will be clear.
- 6. Repeat this procedure for each of the INTER frequencies listed above.

Program the new Call frequencies.

- 2. Using the Keypad, enter the desired label for the new frequency, e.g. 4MHz Ship, 6MHz Ship, 8MHz Ship etc.
- 3. Rotate the [CH] Knob to move to the TX:_____.KHz and enter the new frequency. {4MHz: 4,208.0; 6MHz: 6,312.5; 8MHz: 8,415.0; 12MHz: 12,577.5; 16MHz: 16,805.0}
- 4. Rotate the [CH] Knob to move to the RX: _____. KHz and enter the same frequency.
- 5. Press [ENT] to save the scanned frequency.
- 6. Repeat this procedure for all five frequencies.
- 7. When completed, you may use any of the xxMHz frequencies to call other cruisers and the INTERxx-x are duplex for shore based calls should shore base stations.
- 8. Press [SET/MODE] button to return to DSC Watch.

When calling other cruisers now you will be able to try and call on any of these new calling frequencies. However, make sure your friends have re-programmed their radios as well or they will only be able to hear your call at short ranges on 2177.0 KHz. Be sure that if you call on a 6MHz channel, you also choose a 6MHz voice channel as the other boat may hear your call, but not you if you were to select say 2A or 4B.

SC Emergency ransmit	requencies e the same.		S S S S S S S S S S S S S S S S S S S	S
iver 1,207.5, D 8,414.5 T	6,804.5 F		As per XII IS0 mile 75 mile 70 mile 50 mile 50 mile	
DSC Rece 2,187.5, 4 6,312.0, 8	12,577.5, 10 kHz S		IC – M802 J Appendix Appendix 1000 miles night 1500 miles night 2000 miles night 3000 miles night 2000 miles days	worldwide
	an	Ship 3.0, 5.0	Voice) 5.0 1.0 (0.0 (6200.0 0/12,242.0 kHz 0/12,242.0 kHz APPROX R APPROX R APPROX R APPROX R 100 miles day 500 miles day 500 miles day 100 miles day 500 mi	Daytime only pand,
Emergency Reception nna (DERA)	DSC WATCH kHz Sc	All Simplex/Ship to 2,177.0 4,208 6,312.5 8,419 12,577.5 16,80	Emergency Traffic (IMPLEX 2,182.0, 4,12 6,215.0, 8,29 12,290.0, 16,42 UPLEX R/T ,426.0/4,134.0 6,501.0 ,764.0/8,240.0 13,089. VNEL MHZ VNEL MHZ 2 MHZ 6 MHZ 6 MHZ 8 MHZ 6 MHZ 8 MHZ 2 MHZ 6 MHZ 8 MHZ 2 MHZ 6 MHZ 8 MHZ 7 0,000 13,089. 2 0,000 13,080. 2 0,000 14,080. 2 0,0000 14,080. 2 0	ZHIMI 77
DSC	HF SSB	Antenna	2 XX 8 8 XX 12 XX 8 8 XX 12 XX	N 77

East Coast Nets

Atlantic, Bahamas, Bermuda, Caribbean, Mexico, & Panama Cruising Nets				
Eastern Standard Time Schedule (Winter Time)				
Ti	me	FREQ MHz	Upper /	
UTC	EST	Brimany / Secondary	Lower	Net Name
(GMT)	201	Fillinary / Secondary	Sideband	
10:00		6.215	USB	Caribbean (Uncontrolled 1000-1200)
10:30	5:30	3.855	LSB	Caribbean Weather - Eric Mackie 9Z4CP Net control
10:30	5:30	3.815	LSB	Caribbean Emergency & Weather
11:00	6:00	8.137	USB	Caribbean WX Center (Chris Parker)
11:30	6:30	4.045	USB	Caribbean WX Center (Chris Parker)
11:00	6:00	7.241	LSB	KP2G Caribbean MM Net (George)
11:30	6:30	7.086	LSB	KP2G Caribbean MM Net (George)
12:00	7:00	4.003	USB	BASRA Weather Net (Bahamas local weather)
12:20	7:20	7.096 / 3.696	LSB	Bahamas Weather
12:30	7:30	8.104	USB	Caribbean WX Center (Chris Parker)
12:45	7:45	7.268	LSB	Water Way / Cruising Club
12:45	7:45	14.121	USB	Mississauga
13:00	8:00	21.400	USB	Trans Atlantic
12:00	8.00	7 093	ICP	Central American Breakfast Club
13.00	0.00	1.005	LOD	Must be South of 20 deg. North to use this Freq.
42.20	0.20	6.516/6.224/6.227	USB	Cruiseheimers Winter
13:30	8:30	/ 6.230		(6.516 primary; 6.224 / 6.227 / 6.230 Secondary)
42.20	0.20	0 452/ 0 446 / 0 464		Cruiseheimers Summer
15.50	0.50	0.132/ 0.140 / 0.104	USB	(8.152 primary; 8.146 / 8.164 Secondary)
13:30	8:30	12.350	USB	Caribbean WX Center (Chris Parker)
13:30	8:30	2.582	USB	Bermuda Harbour
13:30	8:30	8.107 / 8167	USB	Panama Connection Net
14:00	9:00	6.221	USB	Caribbean WX Center (Chris Parker)
14:00	9:00	6.209 / 6.212 / 6.516	USB	NW Caribbean (6.209 Primary; 6.212./6.516 Secondary)
14:00	9:00	7.292	LSB	Florida Net
14:00	9:00	8.147 / 8.137	USB	Panama Pacific Net
15:00	10:00	14.173	USB	Chesapeake Nautical
20:00	15:00	12C (12.359)	USB	Southbound II - Herb's WX Net
20:30	15:30	7.086	LSB	Waterway Cocktail & Weather Net (George)
22:00	17:00	6516	USB	Doo-Dah Net
22:35	17:35	3.815	LSB	Caribbean Emergency & Weather Net
24/7/365	24/7/365	14.300	USB	24-hour Maritime Mobile Net
As Needed	As Needed	8.104	USB	Caribbean WX Center (Operates when Hurricanes threaten region)
As Needed	As Needed	3.935	LSB	Gulf Coast Hurricane
As Needed	As Needed	14.325 / 3.950	USB / LSB	Hurricane Watch *
Green Italic Bold = Marine SSB (Note: All Marine SSB nets are conducted on USB)				
Blue normal font = HAM (Note: USB is used on 14mHz {20M} & up; LSB is used on 7mHz {40M} & below)				
* Net activates whenever, a hurricane is within 300 miles of a populated area				

* Net activates whenever a hurricane is within 300 miles of a populated area.