



ARASWF

Newsletter



Vol. MMXI No. 5 The Journal of the Amateur Radio Association of Southwest Florida
May 2011

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**Next Meeting will be held on May 24th
2011 at 7.00pm at the Red Cross, Naples!**

From the President's Shack

This will be our last meeting before Field day. This meeting is very important as we will make the last plans. We will have Field Day at the Red Cross building. Please sign up for Field Day at this meeting. If you can't make it and want to come, please let someone know. Frank is getting everything lined up for you when we get there. We will need people on Saturday morning for setup. Then during the day we will need operators to keep the stations on the air. We will need help for food to get ready. Then after Field Day we need people to tear down. If we get enough people it will take one hour. Please come out and help.

We are getting equipment together so we can put up a tower at the Red Cross building. Things are going along well, but when we put the tower up we will need help. Let Peter know if you can help.

The Florida QSO Party went off and AD and myself did well. We had over 900 contacts and we expect that we will be in the running for Multi/Single.

The Club has to talk about the Island day. Let Peter know who can or wants to go. Last year we had a very good time.

73 CU at the meeting.

George

Meeting Minutes

Amateur Radio Association of Southwest Florida

Regular Monthly Business Meeting held at the American Red Cross, Naples, Florida, on Tuesday, April 26th, 2011

Officers and

Directors Present:

George Tomlinson, AA4GT - President

Karl Geng, N1DL – Vice President

Bob Graf, W2HI - Secretary
Uli Altvater, AGØX – Director

Apologies:

David Schaare, W4SFR – Past President
Joe Goggin, K9KNW – Treasurer
Peter Gaddy, KK4PG – Director
Frank Halas, W4RBW – Director

MEETING MINUTES

Meeting Called To Order:

There being a quorum present with 30 members (including 4 officers and directors and 2 guests) in attendance, George AA4GT called the meeting to order at 7:00 pm with the Pledge of Allegiance

Introductions:

All attendees introduced themselves by name and call-sign for the benefit of the members and guests in attendance. Guest Joseph Cramer N2XYZ (featured speaker) and Bob Epstein N7EG introduced themselves.

Reading & Approval of Previous Minutes:

Reading of the Minutes of the previous meeting was dispensed with since they were published previously in the ARASWF Newsletter.

Treasurer's Report:

There was no treasurer's report given at the meeting due to the absence of Treasurer Joe Goggin K9KNW.

Officers' Reports:

Wednesday night net: George AA4GT reported that the Wednesday night net has been suspended indefinitely until membership interest in reviving it is demonstrated.

WB2QLP Repeater: George AA4GT reported that the 146.67 repeater is off the air for unknown reasons, and Peter KK4PG will visit the site on Wednesday, 4/27, to get it back into operation.

Tower at Village Plaza: George AA4GT reported that he was informed that, despite our previous requests to use this abandoned tower and antenna system, the tower off Davis Blvd. would not be made available to the club for its use, and its owners were

considering taking it down. Then Tim KC4SSD reported that he observed that the antennas have recently been removed from the tower. It was agreed that this is a dead issue.

Tower at American Red Cross: George AA4GT reported that the ARC is wanting the club to install a tower and antenna at their building, and they were prepared to make an opening in the rear wall into an inside j-box for feed line termination and connections. Tim KC4SSD reported that he still has in his possession many of the parts from the previous tower, including base section, several long runs of coax feed line, etc. He also said there is plenty of Rohn 25 available to complete a 30' to 40' tower. Then Bill K2ZEL offered the club a 36' aluminum crank-up tower complete with arms and pulleys, which he described to be in good condition. After some discussion it was agreed to form a committee to oversee the installation of the tower, including a small tri-band antenna for HF and a vertical antenna for VHF. Volunteering to serve on this committee are Dave WB8VQU, Carl WA2ZIF, Rodney KI4DBI, Call KJ4YEL, Tim KC4SSD, Irv W1ERE, Bill N1MMQ, Gary K8YMN. Hopefully the antenna will be in place by June 1st, in plenty of time for Field Day.

Repairs at American Red Cross: George AA4GT reminded the membership that the ARC has requested the club's assistance in making some repairs at their building, including painting and electrical repairs. He will determine exactly what needs to be done, and then ask for volunteers to get this work done. This is something the club needs to take seriously, to show our appreciation for the ARC making their facilities available to us.

Tower at Immokalee: Thom N5KFR reported that there is a 205' tower at Immokalee that has been offered to ARASWF for use as a VHF repeater site. There is an existing VHF antenna at the top, but no feed line. Karl N1DL suggested that the matter be referred to the Executive Board for further consideration to determine if putting a repeater at this location will fit into the club's plans for future expansion, and whether it's projected use will justify the expense and effort involved. (What is needed is a 2nd VHF location in Golden Gate or thereabouts to link into the existing repeater in North Naples, and a UHF repeater location centrally located in Collier County.)

Committee Reports:

Field Day: George AA4GT reported that although Frank W4RBW was unable to attend this meeting, he seems to have Field Day plans under control. The club does need the assistance of the membership in setting-up, tearing down, and operating during the event, and he appealed to the membership for their participation. Field Day will be operated from the American Red Cross building, as it was done in the past. Including

the new tower/antennas to be installed at ARC, we will have three tri-banders and several verticals and wire antennas for use.

Old Business:

Keewaydin DXpedition: George AA4GT asked for a show of hands of members interested in participating in a Keewaydin Island outing, and 5 members so indicated. In addition it is known that KK4PG and K9KNW would participate, and there would probably be a few others. Discussion followed during which it was agreed to consider another island site to avoid the hassle and expenses involved with Keewaydin, perhaps Tigertail Beach on Marco Island. (Marco Island also has the IOTA designation NA-052 due to its inclusion in the Thousand Island chain.) Karl N1DL volunteered to investigate the possibility of setting up there. Then it was mentioned that the RSGB IOTA contest is scheduled for the weekend of July 30-31, and it was tentatively agreed that would be a good time for this event. Finally Karl N1DL mentioned that it might be possible to use the call-sign of the Marco Island Radio Club - K5MI. (Subsequent to this membership meeting, Ulrich N1UL gave his permission to use the K5MI call-sign for this "Island Event", and offered us the use of his guest house radio shack and antennas for the event.)

New Business:

Florida QSO Party: AD, K4ADR, reminded the membership that the Florida QSO Party will take place on the coming, April 30 – May 1, 2011. Operating times are Saturday from Noon EDT to 9:59pm EDT, and Sunday 8am EDT to 5:59pm EDT.

Special Program:

Joe N2XYZ presented a very interesting slide show of the amateur radio activities at the Battleship USS New Jersey, which operates under the call-sign NJ2BB. He encouraged members to participate in the annual Museum Ships Weekend Special Event, June 4-5, 2011. A special Certificate is offered to stations making contact with at least 15 of the ships participating in this event. A listing of ships and frequencies will appear be placed on the club web site. Additional information about this event, and the USS New Jersey, can be had at www.nj2bb.org.

50/50:

The 50/50 raffle was won by guest Bob Epstein N7EG, who immediately used the proceeds to join ARASWF.

Adjournment:

There being no further business, the meeting was adjourned by George AA4GT at 8:30 pm.

Bob Graf, W2HI
Secretary

New Members

None this month

News Items

From Bob (W2HI)

Following his excellent slide presentation at the ARASWF membership meeting on Tuesday, April 26th, 2011, Joe N2XYZ encouraged all ARASWF members to participate in the Museum Ships Weekend 2011, to be held June 4-5, 2011.

Details of this event are shown below, including identification of participating ships, hours of operation and operating frequencies. Please note that you must work at least 15 different participating ships to earn their unique Certificate.

Happy operating!!

Bob W2HI

MUSEUM SHIPS WEEKEND EVENT

sponsored by
The Battleship New Jersey Amateur Radio Station

June 4 - 5, 2011
0000Z June 4, through 2359Z June 5, 2011

2011 CERTIFICATE INFORMATION

You must work at least 15 different participating ships

All stations that work at least 15 different ships of those participating (listed below) will receive a certificate if they send a copy of their log entries showing these contacts.

Working *the same ship on different frequencies DOES NOT count as 2 ships. Working a ship not listed will not count*

Certificate is 8.5 X 11. Please send \$3.00 to cover costs. *(The \$3 covers the postage, a large envelope and the certificate).* Certificates will not be folded.

2010 Top Operators

| | |
|-----------|-----------|
| W6JRY 39 | KJ4KVC 28 |
| N1LQ 37 | W9EVT 27 |
| K5FJM 37 | W4NHO 27 |
| K6YN36 | KD4QMY 27 |
| KE6V 33 | AK6S 27 |
| KF4NEF33 | KC9IGB 27 |
| KM4HI 32 | W8KA 26 |
| KD6CPA 32 | W7UT 26 |
| KD3CQ 32 | DK0MHD 26 |
| K6XN 32 | AB9V 26 |
| WA5DTK 31 | W5AZO 25 |
| NN7NN 31 | VE7CV 25 |
| W6RO 29 | K9WYB 25 |
| K5KG 29 | N8RAY 25 |
| N9HSB 28 | W8FQ 25 |
| KG8EF 28 | |

Ships wishing to participate should send a note to museum@nj2bb.org with the name of ship, call-sign, location and contact info for person responsible.

Please read the [rules for ships](#) wishing to participate before contacting us.

List of participants for 2011 Museum Ship Event
We will add ships to the list as they notify us of their participation.

*Ships with an asterisk are new to Museum Ships Weekend

SHIPS PARTICIPATING FOR 2011 -43 Ships
Please QSL each ship directly

| <u>NAME</u> | <u>TYPE OF SHIP</u> | <u>LOCATION</u> <u>CALLSIGN</u> |
|---|----------------------------|--|
| • USS Hornet | Aircraft Carrier | Alameda Point, CA NB6GC |
| • USS Midway | Aircraft Carrier | San Diego, CA NI6IW |
| • USS Lexington | Aircraft Carrier | Corpus Christi, TX W5LEX |
| • USS New Jersey | Battleship | Camden, New Jersey NJ2BB |
| • USS Wisconsin | Battleship | Norfolk, Virginia N4WIS |
| • USS North Carolina | Battleship | North Carolina NI4BK |
| • USS Missouri | Battleship | Pearl Harbor, HI KH6BB |
| • * USS Oklahoma Mast Memorial | Fire Control Mast Memorial | Muskogee, OK WW2OK |
| • SS Willis B Boyer | Bulk Carrier | Toledo, OH W8WBB |
| • MV Cap San Diego | Cargo Ship | Hamburg, Germany DL0MFH |
| • Ex MV Dresden | Cargo Ship | Rostock, Germany DL0MCM |
| • USS Potomac | CG Cutter/Pres. Yacht | Oakland, CA. NE6JP |
| • USS Indianapolis CA-35 Memorial | Cruiser | Indianapolis, IN WW2IND |
| • USS Olympia | Cruiser | Philadelphia, PA WA3BAT |
| • HMS Belfast | Cruiser | London, UK GB2RN |

- [USS Littlerock](#) Cruiser Buffalo, New York [W2PE](#)
- USS Turner Joy Destroyer Bremerton, WA [KA7UMR](#)
- *USS Orleck Destroyer Lake Charles, LA [KD5ULS](#)
- [HMCS Haida](#) Destroyer Hamilton, Ontario [VE3RCN](#)
- [USS Kidd](#) Destroyer Baton Rouge, La [W5KID](#)
- [USS Stewart](#) Destroyer Escort Galveston, TX [KK5W](#)
- *D. Fernando II e Glóira Frigate Cacilhas Dockyard Portugal [CS5DFG](#)
- *[Navio Hospital Gil Eannes](#) Hospital Ship Viana do Castelo, Portugal [CS1AAM](#)
- *[LS Nantucket](#) Lightship East Boston, MA [W1NLS](#)
- LS Columbia Lightship Astoria, Oregon [W7BU](#)
- *Carl D Bradley Limestone Carrier Rogers City, MI [W8CDB](#)
- [Silent Service Memorial](#) Marquette Maritime Museum Marquette, MI [KD8DKU](#)
- [MS Atlantis](#) Minesweeper Dresden, Germany [DK0MHD](#)
- *Skibladner Paddle Steamer Gjovik, Norway [LA1X](#)
- [SS Keewatin](#) Passenger Steamship Saugatuck, MI [K8CJQ](#)
- [RMS Queen Mary](#) Passengership Long Beach, CA [W6RO](#)
- [MS Finnmarken 56](#) Passengership StokmArknes, Norway [LA1HMU](#)
- [U-5075](#) Seehund Submarine Quincy, MA. [WW2MAN](#)
- [USS Silversides](#) Submarine Muskegon, MI [W9AB](#)

- [K24 \(U-461\) DM3G](#) Submarine Peenemuende, Germany
- [USS Cobia](#) Submarine Manitowoc, Wisconsin [NB9QV](#)
- [S637 Espadon](#) Submarine Saint-Nazaire France [F6KBG](#)
- [U-995](#) Submarine Laboe Germany [DL0DMB](#)
- [USS Batfish](#) Submarine Muskogee, OK [WW2SUB](#)
- [U3](#) Submarine Malmo, Sweden [SD7SUB](#)
- [USS Cavalla](#) Submarine Galveston, TX [KK5W](#)
- [U9](#) Submarine Speyer, Germany [DK0SP](#)
- [USS Becuna](#) Submarine Philadelphia, PA N3SUB

While operation on any amateur frequency is allowed, most ships will be operating in the General portion of the bands

| SSB | | CW |
|------------|--|------------|
| 3,860 KHz | | 3,539 KHz |
| 7,260 KHz | | 7,039 KHz |
| | | 10,109 KHz |
| 14,260 KHz | | 14,039 KHz |
| 18,160 KHz | | 18,079 KHz |
| 21,360 KHz | | 21,039 KHz |
| 24,960 KHz | | 24,899 KHz |
| 28,360 KHz | | 28,039 KHz |
| 50,160 KHz | | 50,109 KHz |

EVENT PSK 31 OPERATIONS
14.070 MHz 10.142 MHz 18.100 MHz 1.070 MHz 28.120 MHz

Some ships will also be on 3880 KHz - 3885 KHz and 7290 KHz Amplitude Modulation with either their ships original equipment or modern equipment.

While any operating mode can be used in this event and CW and SSB are the dominant modes, we are encouraging all the participating ships, that have the ability, to fire up their original equipment on

3885 KHz, 3600 & 3625 (in the UK),
3705 (W. Europe),
7290 KHz and 14.286 KHz in the AM mode.

from Don (K9ZKJ)

Across Alabama, emergency communications systems fell silent this week when tornadoes knocked down antennas and cell phone towers. Amateur radio operators are helping to restore emergency communication in some of the areas hardest hit by the storms. But those volunteers say their ability to provide that help is threatened by a new bill in Congress.

When Hurricane Katrina came ashore in 2005, it destroyed cell phone towers and electrical infrastructure. That left law enforcement and relief agencies without a viable way to communicate — until amateur radio operators stepped in.

Hundreds of amateur radio operators – or hams, as they call themselves – poured into Louisiana and Mississippi from all over the country, bringing their own portable antennas and amplifiers to temporarily replace what the storm had wiped out.



technology

**Ham Radio Growing
In The Age Of
Twitter**

"They set up communications for the agencies, both governmental and relief agencies that were trying to help people there," says Kay Craigie is the president of the [American Radio Relay League](#), an advocacy group that represents hams . "And they stayed there for weeks under very, very difficult conditions."

Craigie says Hurricane Katrina is just one example of how volunteer ham operators have responded to emergencies all over

the country. But she says their ability to provide that help is being inadvertently threatened – in the name of improved emergency communication.

Peter King is a Republican congressman from New York, and the chairman of the House Homeland Security Committee. At a hearing in March, King lamented that police, firefighters and other first responders have trouble talking to each other during emergencies.

"As we approach the 10th anniversary of September 11th, public safety must be allocated sufficient spectrum so that a national, interoperable public safety wireless broadband network can finally be built," he said.

King is sponsoring a bill called the Broadband [for First Responders Act of 2011](#). The measure would take some of the broadcast spectrum that was freed up by the transition to digital television and set it aside to build a new emergency communications system. That idea has wide support in both parties, and both houses of Congress. To pay for it, King's bill proposes auctioning off another band of broadcast frequencies that are sometimes used by first responders. The problem is, those same frequencies are used by ham radio operators, too.

Joseph Taylor lives in Princeton, N.J. His house isn't hard to find: It's the only one on the block with a giant radio tower in the backyard.

"Ham radio operators have a long history of being very useful in emergency situations," Taylor says. "The training of amateurs has been a national resource for many decades now."

Taylor says his early radio training led him to a career in physics, and eventually, a Nobel Prize. There are other frequencies besides those targeted by the House bill that hams can use. But amateur radio advocates worry that this bill could be just the first step.

"They start taking these frequencies away now, and then down they take a few more. And pretty quick, it becomes a major problem instead of just a minor issue," says Vince Kolar, the emergency manager for Cascade County, Montana. He says hams routinely help the county with traffic control, and with its emergency response in case of wildfires and severe weather.

"Those people are all volunteers," he says. "They all volunteer their time and their equipment, mostly. If it makes it harder for them to do what they need to do, then I'm certainly opposed to it."

Across the country in Virginia, state emergency coordinator Michael Cline doesn't dispute the importance of hams. But he thinks the House bill can be changed.

"They really are an integral part of emergency management and public safety," Cline says. "But I think now that a lot of folks are realizing that there is a potential harm to the amateurs that we'll be able to make accommodations for them."

King, the author of the House bill, declined requests for an interview. In a written statement, King says he's working to address the concerns of the amateur radio community, while still moving forward with a new public safety network. And when a future disaster knocks that network offline, hams hope they'll still be in a position to help

from Bill (K2ZEL)



Building and Testing

"The Cube"

A SDR - RX/TX Kit

By Dr. G. Wm. Reynolds, K2ZEL

In November 2010 after the announcement of the projected availability of the kit for "The Cube, SDR RX/TX", a software defined radio with an integral micro controller including digital signal processing, the author ordered a complete set of printed circuit boards, components, and enclosure as a personal holiday gift and an educational project. Above is pictured the completed project with a set of amplified computer speakers attached. The kit of components was delivered in a priority mail box 7"x 7"x 6" in early February. The box contained 7 pcb's, 11 plastic bags of parts, 2 metal enclosures, and bags of assorted hardware. The instructions needed to be downloaded from the web site (www.sdr-cube.com). The web site has the complete specifications and documentation for the project including detailed building constructions. The **SDR Cube** is a totally self-contained, embedded SDR transceiver for CW & SSB using a Softrock for the RF front end and a pc board implementation of an HF modem. A PC is not needed for using the SDR Cube, as all DSP processing is accomplished by an embedded DSP processor on the three internal pc boards. The Cube is designed to fit into an optional 4" x 4" x 4" pre-cut black powder-coated aluminum enclosure containing all controls, a blue graphic display showing the transceiver settings and an exciting 8 kHz-wide band scope of spectrum signals, and the popular Softrock RXTX v6.3 board. The SDR Cube may also be used with any of the 11,000 other Softrocks in the field today! Sold as a kit or as a fully assembled & tested transceiver, Cube kits are currently available and fully assembled & tested Cubes will be ready for shipping by the end of January. We presented on the SDR Cube at TAPR's annual "Digital Communications Conference" in Portland, Oregon, and the DCC Proceedings containing our paper is available from TAPR. Many details are already presented here on this website, and active email discussion occurs in the [SDR-Cube Group in Yahoo Groups](#)

MAJOR FEATURES:

- _ Standalone SDR transceiver ...** No PC, portable, compact
- _ Self-contained single band ...** Based on the I/Q RF front end
- _ Softrock-compatible ...** Designed to interface with SR v6.3 RXTX, etc.
- _ Low Power ...** 90ma (Cube), plus 100 ma (Softrock Rx) or 300 ma (Software Tx)
- _ Add-on RF Amp & Attenuator ...** Good control of incoming RF, optimize some SR features.
- _ Quadrature Sampling Clocking options ...** DDS, Si570, or I2C to target Softrock
- _ Built-in Keyer ...** 1-100 wpm, Iambic A, B, or straight key
- _ Popular HF modes ...** SSB, CW, AM, Digital (with special interface to NUE-PSK for

digital modes)

- _ **Special interface to NUE-PSK Modem** ... Digital interface provides best quality
- _ **Graphic LCD Display** ... Provides clear indications of the many status and options
- _ **Bandscope** ... Provides +/- 4 kHz spectrum visibility for Rx, signal monitor for Tx
- _ **Audio filtering** ... Low corner 200Hz, high corners 700, 1500, 2400 or 3600Hz
- _ **Audio Output** ... Headphones or amplified speaker, bin-aural audio
- _ **Beeper** ... User interface clicks, code practice oscillator, and more
- _ **Frequency agile** ... Fast/Med/Slow tune, dual VFOs, memories, RIT/XIT
- _ **Menus** ... Calibration, all settings, system gain, side-tone frequency, etc.
- _ **Software Upgradeable** ... Boot-loader enables user to load new software versions
- _ **Open Source** ... Take the source code and add your own features

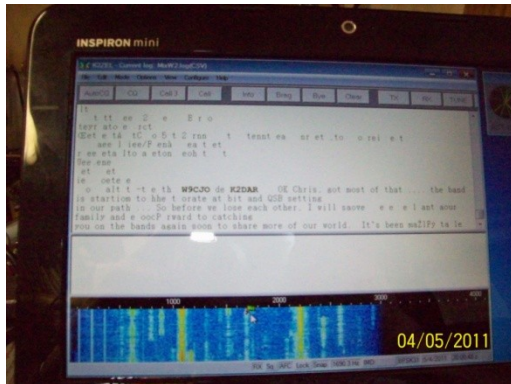


At the left are the boards assembled for testing prior to mounting in the enclosure. The lower module of three boards is the "SOFTROCK V6.3 RF deck. The RF deck has only a few surface mount devices, thus the construction uses the standard TTH techniques. The construction details for this portion are nearly 200 pages of details with testing procedures including voltage and current measurements. The author had no problems with the building and

testing except that initially he omitted 4 key biasing resistors (had extra parts in the bag and it took a while to figure where they went.).

The other three boards are populated with SMD, which can tax the builder's patience, and a few TTH devices (4 potentiometers, 4 push button switches, and the rotatory encoder). When moving from TTH devices to SMD the builder needs to modify his thinking and workspace/ tools to accommodate the change in size factor of the devices and in the lead spacing. At the left is the parts and board package for the DSP/MCU for the CUBE. The reader will note the two sheets of SMD to be mounted on the PC board (both top and bottom). One sheet is primarily capacitors and active devices. The other sheet is primarily resistors. The physical sizes of these devices are measured mm or thousandths of an inch. The passive devices are rectangular measuring .120" to .060" long and .100" to .030" wide. When working with these components you will need a magnifier, tweezers, and lots of light in order to place, hold, and solder the device. When you think solder think small diameter (.032 or .015 in). The soldering iron must be temperature controlled with suitably size and shaped tips (The author uses "Ungar"

irons with interchangeable tips that have been shaped w/ needle files and tinned.). The tips need to be kept clean and the use of lots of flux to get reliable connections. Of special note is the observation " If you squeeze too hard holding the part you will probably launch it into space and never see it again. Again PATIENCE IS THE KEY. It has taken the author three plus months to complete the project, operational on one band. The builder is continuing to assemble modules to cover all bands.



When the project is completed either interconnected on the bench or mounted in the enclosure, connected to an antenna, powered up and you hear and see signals, there is a rush of exhilaration of completing a working ADR RX/TX. At the right is a photo of the USB at 14.070 MHz showing the readable PSK31 signals 4 May 2011. Learning the functions of the CODEC chip that processes all audible I/O has been interesting.

Reviewing the source code for the DSP/MCU has provided the author with ideas for use with other MCU chips. The quadrature mixing/detection concepts and the application to direct conversion radios (RCVR/XMTR/XCVR) makes it possible for the individual to build a respectable RF deck usable in the HF environment. With an appropriate VHF/UHF converter/ transverter these concepts may be extended to all mode units usable on all bands. The author plans to take this unit and a net book computer when traveling next month. He will be able to operate on 40m and 20m with simple dipoles. Listen/ look for my call using PSK or maybe CW (10wpm)

From George (AA4GT)

Florida QSO Party – some pictures!



er May 2011



Trading Post

For Sale:

Kenwood TM-G707A



Newsletter May 2011

From the extra-large control panel — with the welcoming glow of its amber-colored LCD — to Kenwood's Easy Operation mode, the **TM-G707A** is extraordinarily user-friendly ... an important consideration for a mobile rig. This mobile transceiver provides 50 (50/10/5W) watts on 2 meters and 35 (35/10/5W) watts on 440 MHz. The TM-G707A offers features such as: memory name function (7 character), S-meter squelch, time-out timer, encode/decode, dimmer, auto power-off and supplied MC-53DM back lit DTMF hand mic. Non-simultaneous cross-band repeater access is supported. A 6 pin mini DIN connector for 1200/9600 bps packet is provided.

Receive coverage is 118-174 and 410-524 MHz F3E (FM) (double conversion superheterodyne). Transmit range is 144-148 and 430-450 MHz F3E (FM). Size: 5.5 x 1.7 x 7.4 inches 2.65 Lbs (140x40x190mm 1.2kg). Includes MC-53DM hand mic. Requires 13.8 VDC at 11 amps.

Features

- 180 Alpha Memories
- Big Display
- DTMF Hand Mic.
- Auto Repeater Offset
- Guide Function
- Dimmer
- Time Out Timer
- Remote Cable & Bracket
- Visual Scan
- Priority Scan
- Auto Simplex Checker
- DTSS Selective Call
- PL Decode/Encode
- Packet 1200/9600 Din
- Hi/Med/Lo RF Out
- Mounting Bracket

CONTACT: HARRY/KD4JMV @ 239-322-2586

AFTER 3 P.M. PRICE: \$225.00

Club Information

Meeting Time: 4th Tuesday 7:00pm

American Red Cross
2610 Northbrooke Plaza Drive
Naples FL

Club Repeater: WB2QLP
146.670 (-600) PL 136.5
EOC Repeater:WB2WPA
147.030 (+600)

Club Web Site:
<http://www.araswf.org>

President: AA4GT
George

Vice President: N1DL
Karl

Secretary: W2HI
Bob

Treasurer: K9KNW
Joe

Director: KK4PG
Peter

Director: AG0X
Uli

Director: W4RBW
Frank

Past President: W4SFR
Dave

Newsletter Editor: KG4ZLB
David

Webmaster: W2HI Bob

Visit
the



**Amateur Radio Association
of Southwest Florida, Inc.**

Web Site

www.araswf.org