



ARASWF

NEWSLETTER



Vol. XXII No. 4 The Journal of the Amateur Radio Association of Southwest Florida April 2006

Club Information

Meeting Time:
4th Tuesday at 7:00 p.m.
Golden Gate Community
Center
4701 Golden Gate Parkway
Naples FL
Club Repeater:
K4YHB—146.670 (-600)
EOC Repeater:
WB2WPA—147.030 (+600)
Club Home Page
<http://www.araswf.org>
Club Officers/ Chairmen
President: KK4PG
Peter Gaddy
Vice President: KI4AI
Carl Pacini
Secretary: KG4ZLB
David Worboys
Treasurer: K2ZEL
Bill Reynolds
Past President: KB4ETT
Corey Mugaas
Technical Director: WB2QLP
Jordan Mash
Ops. Director: KI4DBI
Rodney Smith
Public Info. Officer: KI4HQP
Elio Hernandez
Awards Manager: KD4VRZ
Gary Randall
VE Liaison: KG4ZLB
David Worboys
Newsletter: WD8RFL
Mike Welsh
Webmaster: KI4AIM
Rik Conklin
Social Chair: W2JQ

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KG4ZLB

Jack B. Randolph, KF4AER, SK

Propagation Notes

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KI4AI

Station of the Month

Equipment "FOR SALE"

In the Next Issue:

Field Day Update

The continuing story on Peter Gaddy's (KK4PG) new
station.

Amateur Radio Association of South West Florida

Club Meeting held at the Golden Gate Community Center, Naples, FL on Tuesday March 28th 2006.

Present:

Peter Gaddy, KK4PG - President
G. William Reynolds, K2ZEL - Treasurer
David Worboys, KG4ZLB - Secretary
Jordan Mash, WB2QLP - Co-Technical Director

Apologies:

Corey Mugaas, KB4ETT- Past President
Carl Pacini, KI4AII - Vice President
Rodney Smith, KI4DBI - Operations Director
Tim Wallen, KC4SSD - Co-Technical Director

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MEETING MINUTES

Peter, KK4PG (President) acted as Chairman of the meeting and there being a quorum present, called the meeting to order at 7.26pm.

Introduction: As usual, attendees introduced themselves to the meeting for the benefit of new members and visitors. Peter also welcomed everyone to the first meeting to be held at the Golden Gate Community Center.

Treasurers Report: Bill, K2ZEL advised that after paying \$60 to the Golden Gate Community Center for the hire of the meeting room, the balance on hand stood at \$4760.25. As Peter had advised Bill at the preceding Board Meeting that as we were part of the EOC Emergency Preparedness procedures we now were not required to pay for the room, enquiries would be made as to the return of at least the April advance payment. A motion to accept the Treasurers report was made by Walt, KU1Q and seconded by George, N3ISH and the motion was carried.

Club Vests: Jordan advised that he had received a telephone call from the lady making the vests saying that they should have been completed by Monday March 27th! However, monies that were due from Members for their vests needed to be collected as Jordan was required to pay for them on delivery. Jordan requested that members see him immediately following the meeting to make payment.

Field Day: Jordan once again advised the members that the 2006 Field Day would be held outside at the property of Joe Goggins. The date for Field Day this year was June 24/25th and set up would be conducted the day earlier, Friday June 23rd. There followed a general discussion about the number of transmitters that the Club would be operating this year as well as the logistics of running the computers for logging purposes. Bill, K2ZEL who historically put together the computers for Field Day advised that he may not be able to attend this year and Eric, KI4HEY agreed to perform this task in Bill's absence. It was agreed that at the April Club Meeting, further discussions would be held to iron out any wrinkles that outside operating might throw at us, also careful consideration would be given to the

possibility of hiring a tent and portable toilets. Jordan also said that he intended to build a 40m loop antenna the plans for which he had found in a 1979 issue of QST.

Hamfest: Jordan reminded the meeting that a Hamfest/free flea would be held in Ft. Lauderdale this coming Saturday and that interested members should Google "W4MAQ" for address and driving directions as the venue had changed from the previous year.

Red Cross Building: Peter advised that a work party needed to be assembled to meet at the Red Cross for the purpose of removing Club equipment and repairing the damage to the wall left by the tower bracket that failed during last years Hurricane Wilma. After consulting with various dates it was suggested that April 29th be a good day to hold the work party and that volunteers would be sought at the April Club meeting to be held April 25th. If possible, some work would be done in advance so that the Club was not trying to complete the work just before its own imposed deadline. Peter KK4PG had already advised the Red Cross that the Club would vacate the premises by the end of April at the latest. It was suggested that the stock of old magazines could be donated to a local library for reference purposes rather than just throwing them away.

Auction: Following a very generous donation of an "as-new" 2001 Yaesu FT2800M 2m mobile radio, an auction was held to benefit Club funds. The successful bidder was George, N3ISH for the sum of \$115.

Demonstration: Bruce, K9PWQ gave a demonstration of Fast Scan TV in the 900 MHz amateur frequency to the meeting. The Club wishes to thank Bruce for his time and effort in providing this enjoyable demonstration of a facet of amateur radio not really well practised in this area.

50/50: The 50/50 raffle was drawn by Bob, WO0B and won by Alan, KI4IMA who generously donated his winnings back to Club funds.

ISS Contact: Bob, WO0B wished to publicly thank those members who gave freely of their time and efforts in ensuring that the recent ISS School contact proceeded flawlessly. He felt that the whole project had shown amateur radio in a very positive light whilst also providing invaluable publicity and public awareness.

There being no further business, the meeting was adjourned at 8.30pm.

David A. Worboys
KG4ZLB
Secretary

Jack B. Randolph, KF4AER, SK:

Jack B. Randolph, 69, of Naples, died April 9, 2006. Mr. Randolph had lived in Lansing, MI before moving to Naples 26 years ago. Jack has worked as an electrician most of his life last working for Collier County retiring in 1999 after 11 years. Jack was the Channel 5 weather reporter for the Golden Gate area.

He is survived by his wife JoAnn; three daughters, Julie (Doug) Triplitt of Greenville, SC, Jodie (Tommy) Bertges of Golden Gate Estates and Jamie Marr of Golden Gate Estates; five grandchildren, Robbie, Zack, Matthew, Daniel Amber; a brother, David (Barbara) Randolph of Climax, MI; and a sister, Diane (Bob) Haidel of Colon, MI.

From Jordan Mash, WB2QLP:

PROPAGATION ON THE "MAGIC BAND"

By Robert Magnani K6QXY

6 meters is a very unique amateur band. Every mode of propagation known to exist can be found here. In fact, the 6 meter amateur band was actually an FCC compromise that recognized the importance of this block of frequencies. Originally the Commission was going to give amateurs a band between 44 and 48 mhz. Intense lobbying by the ARRL convinced the FCC there were enough "unique propagation attractions" to assign the 6 meter band to 50-54 mhz.

There are three major forms of propagation that can cause real excitement on the "Magic Band".

F-Layer Propagation

Approximately every 11 years the sun explodes into violent solar storms. These solar storms produce sufficient amounts of radiation to excite the F-layer producing a very radio reflective surface. A smoothed sun spot number of at least 120 is needed for the M.U.F. (maximum useable frequency) to reach 50 mhz. When this occurs, 50 mhz. signals can be propagated to distances exceeding 10,000 miles!!!!

The height of the ionized F2 layer reflections produce single hop distances approaching 2,500 miles. With the sun rotating on its axis every 27-28 days, a sun spot or complex group of spots, will again face the earth and a particular series of events will often repeat itself every 27-28 days.

Transequitorial Propagations

One of the most exciting propagation modes is transequitorial propagation or "TEP". TEP is really the scattering from ionospheric irregularities at very high altitudes. Actually TEP was discovered by amateurs during the late 1950's. They called the new mode "Transequitorial Field Aligned Irregularities".

TEP forms across the "Geomagnetic Equator", with stations ideally situated on a north south axis at equal distances either side of the "Geomagnetic Equator". Occurring near the two solar equinoxes in March and September, TEP occurs in the late afternoon and early evening. There is a strong positive correlation with the solar cycle peak. M.U.F.'s of TEP signals can often exceed 400 mhz. There is a strong correlation between the formation of TEP and auroral events. TEP signals often exhibit the same "garbled" characteristics as that of auroral scattered signals.

Sporadic E

One of the most misunderstood VHF propagations modes is "Sporadic E". Sporadic E normally displays a major peak during the summer months of May through August, and then again with a minor peak in the winter months of November and December.

Sporadic E appears to be reflections from dense patches of ionization that form at E-layer heights. The height of the E-Layer reflections produce single hop distances on the order of 1,200 miles. One, two, three and even four hop sporadic E has occurred with distances exceeding 5,000 miles. Whether they are actually hops that touch the earth or “Chordial Hops” that just graze the earth or even “cloud to cloud reflections” is not clear. The actual cause of sporadic E is unknown. Theories include high altitude wind shear and the generation of strong electron fields associated with high altitude thunder storms. Research now indicates that certain “multi-hop Sporadic E” paths, especially those that cross the “Auroral E Zone” and the “Equatorial E Zone” exhibit strong “diurnal” characteristics. These paths show a remarkable consistency in time of day, month and year repeatability.

There does not seem to be any correlation with the 11 year solar cycle, but data seems to suggest a 5-7 year cycle with a 5-7 day underlying cycle.

Other forms of propagation on the “Magic Band” include “meteor scatter”, “aurora” and “Auroral E’s” plus the various scatter modes. All of these in combinations with the above mentioned major modes contribute to exciting times on 6 meters.

A “must” reading for all “Magic Band” enthusiasts is the ARRL publication Beyond Line of Sight by Emil Pocock W3EP. Emil brings together articles and papers on VHF propagation from the pages of QST. Another fine source of 6 meter propagation data can be found on Bob Mobile’s (K1SIX) site at http://personalpages.mcttelecom.com/~b_mobile

[SOLAR MINIMUM has Arrived... Click Here for more Information](#)



The Sun on February 10, 2006 - Look Ma, No Sunspots !

A Bill Before Congress:

H.R. 3876, the "Amateur Radio Emergency Communications Consistency Act" , a House Bill, was submitted on September 22, 2005. As of October 7, 2005, it was referred to the Subcommittee on Telecommunications and the Internet.

Amateur Radio Emergency Communications Consistency Act (Introduced in House)

1. HR 3876 IH

109th CONGRESS

1st Session

H. R. 3876

To provide that private land use rules be treated as State or local regulation for purposes of certain Federal Communications Commission regulations.

IN THE HOUSE OF REPRESENTATIVES

September 22, 2005

Mr. ISRAEL (for himself and Mr. ROSS) introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To provide that private land use rules be treated as State or local regulation for purposes of certain Federal Communications Commission regulations.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the `Amateur Radio Emergency Communications Consistency Act'.

SEC. 2. TREATMENT OF PRIVATE LAND USE RULES AS LOCAL REGULATION.

For purposes of the Federal Communications Commission's regulation relating to station antenna structures in the amateur radio services (47 CFR 97.15), any private land use rules applicable to such structures shall be treated as a State or local regulation and shall be subject to the same requirements and limitations as a State or local regulation.

Consider contacting your Congressional Representative and encourage him or her to support this Bill.

Dxpedition to Key Island

April 8, 2008

The Dxpeditioners:



Standing (L to R): Mike Welsh WD8RFL, Rodney Smith KI4DBI, Roy Jackson N9RG , Luna Smith KI4HEW , Cindy Quinn KI4NWU , Bob Quinn KI4LUD, Jordan Mash WB2QLP, Carl Pacini KI4All, Peter Gaddy KK4PG, Jesse Wallen KI4HEU

Kneeling (L to R) : Tom Shuster KI4HEX, Dave Ducett WB8VQU

Report, by Carl Pacini, KI4All:

On April 8, Saturday, twelve ARASWF club members went on a DXpedition to Keewaydin Island, Collier County, Florida. Food, drink, chairs, coolers, and radio equipment were transported to the island in two rented motor boats. Once ashore, club members set up a station on 40 meters and an HF station for QSOs on 10 through 20 meters. Several club members also brought HTs to work 2 meters. By the end of the day, ARASWF members had QSOs on 2, 17, 20 and 40 meters.

HF station equipment consisted of an ICOM 706 Mark II G, an MFJ 945-E mobile tuner, an Ameritron ALS-500M amplifier, two deep-cycle marine 12-volt batteries, a voltage regulator, an external speaker, a Heil headset, an Alpha Delta outpost tripod, and 15, 17, and 20 meter Lakeview hamsticks. Using 300 watts, club members had about 30 contacts with radio operators in 12 countries on 5 continents. Also a Yaesu FT-100 was used on 40m. Rodney, KI4DBI and Mike, WD8RFL used their HT's to make some 2m contacts into Naples. In fact, ARASWF operations were noted on the DX cluster for both 17 and 20 meters. DX contacts were as follows:

17 meters--Sweden, Germany, Belgium, Columbia, England, Sri Lanka (4S7), Mali (TZ), and Italy

20 meters--Canada, England, France, Poland and the Netherlands

Interestingly, the signal reports for the Sri Lanka contact were 57 both ways. Most HF contacts were by phone. Jordan Mash, WB2QLP, however, worked some CW using a straight paddle.

In sum, the ARASWF DXpedition involved some good radio contacts, good food, and good fellowship. The success of this DXpedition portends that it may become an annual event. A special note of thanks goes to Peter, KK4PG and Jordan, WB2QLP for their efforts at organizing this DXpedition.

Carl Pacini, KI4AI



Marine Mobile "DX1"



Marine Mobile "DX2"



What Did We Forget To Bring?



Setting Up The Station



Peter "Cookie" Gaddy, and the Kitchen



Carl, Intent on Making a Contact



The Station



Jordan "Sparks" Mash, on the Straight Key



Tom Giving Jordan and Jesse
Cast Net Instruction



40m Antenna



10-20m Antenna



Dave and Carl Contacting Sri Lanka
and Mali



Curious Double Halo Around the Sun

STATION OF THE MONTH

David Ducett - WB8VQU

This month, Dave Ducett, WB8VQU, has submitted some interesting photos from his station. How often does one hear: "Antenna here is downspout" ? Well, Dave has got the one of the most impressive "downspout" antennas ever. Check it out !

By David Ducett, WB8VQU:

Here is my humble Condo radio station. Can you find the Bobtail Curtain antenna on the side of the building? Well, maybe it's not a perfect Bobtail Curtain but on 40 meters it's real close. I describe it as an inverted W antenna. It is 40 feet high, 137 feet long, and tunes well on 80,40 and 20 meters, into my old Kenwood TS520S, using an MFJ-941 tuner. If you can't find the antenna in the full view of the building, the view looking up from the ground, and the one showing the coax connection might help. My neighbors think that my antenna is a rain trough. But then what do they know about antennas? Dave WB8VQU



The Antenna & Support



Close-Up of the Main Elements



Coax or Hose Fed?



The Shack

FOR SALE

Both units have been completely refurbished:

KENWOOD TS 440 WITH HAND MIC A/TUNER..... \$ 350.00



Repair Work performed on Kenwood TS-440SAT April 2, 2006

- (1) Potting material in VCO-5 has become conductive causing PLL to be temperature unstable. Potting material remove from board, Components cleaned. Reordered the complete VCO 5 area.
Replace two Capacitors
- (2) Potting Material in VCO on RF board becoming conductive, Removed Potting material and replace five capacitors. Resoldered entire VCO area.
- (3) Completely PLL realign to Kenwood Specs and thermal cycled tested for stability.
- (4) Receiver and transmit aligned
- (5) Resoldering of many additional suspect connections on boards
- (6) Replaced 20 Diodes in RX bandpass filters
- (7) FM Squelch Not functioning: Replaced diode
- (8) Enable 10 Hertz readout
- (9) All Band TX mars mod for new 60 meter band
- (10) Replaced meter Lamp
Power adjusted to 135 watts
Power meter calibrated
RIT Adjusted
IF shift Aligned

Carrier point (SSB) Adjusted
Lithium battery checked ..OK
ALC adjusted
Reference oscillator adjust to WWV
Antenna tuner checked out and working properly
Radio Cleaned

SB-200 AMP, Fresh painted (baked), NEW 572-B..... \$ 350.00



Repair Work performed on Heathkit SB-200 Linear Amplifier April 2, 2006:

Rebuilt Power Supply
Replaced HV Capacitors: 180UF @ 450V
Replaced HV Diodes: 1N5408
Repaired PC board
Rewired low voltage supply
Repaired Parasitic assembly
Replaced 33ohm Bias resistors
Replaced Meter Lamp
Replaced Green front panel lamp
Rewired 110V power cord assembly and added strain relief
Cleaned up dangerous wiring in various areas of amp
Burnished TR Relay and treated with Deoxit
Cleaned inside
Oil Fan Motor
Painted Cover

TUBES RELAY INSTALLED FOR 12 VOLTS FOR KEYING

Contact: GEORGE, N3ISH Phone 774-1759 Cell Phone 272-1759

Editor's Note:

Remember that you can “magnify” the view in Adobe Acrobat Reader, to see more detail in the photos. I am considering how to make the photos in the newsletter, available for downloading. Look for this feature sometime soon.

Visit our Club Web Site at: www.araswf.org

**NEXT MEETING - TUESDAY - APRIL 25, 2006
7:00 PM - GOLDEN GATE COMMUNITY CENTER**