



ARASWF

NEWSLETTER



Vol. XXII No. 6 The Journal of the Amateur Radio Association of Southwest Florida June 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: KI4AIL
Carl Pacini
Secretary: W2HI
Bob Graf
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: AI4CZ
Carolyn Conklin
Newsletter: WD8RFL
Mike Welsh
Webmaster: KI4HEY
Eric Rice
Social Chair: W2JQ
Sigi Boernet

From the President's Shack:

Good news! Bob Graf, W2HI, has agreed to fill David Worboys, KG4ZLB, unexpired term as club secretary.

With Alberto crossing the State, now might be the time to think about ARRL insurance. The Following is from the Web page:

At a Glance:

If you've invested a great deal of money in the equipment you use in your profession, then it makes sense for you to invest in insurance to protect that equipment. You can't possibly predict a fire, flood or theft that would put an end to your equipment and make it impossible to do your job.

The All Risk Equipment Plan provides up to \$10,000 of protection for loss or damage to the equipment you rely on — like computer equipment, video gear or whatever the tools are you need to get the job done.

Benefit Features:

- Covers almost everything, including computers
- Protection up to \$10,000 for loss or damage due to theft, fire, storm or other natural calamity
- Coverage provided whether equipment is at home, in the office, in your car, or on location — 24 hours a day
- Low deductible

Why take an unnecessary risk when you don't have to? You rely on your equipment to do your job. The All-Risk Equipment Plan is the coverage you can rely on to protect that equipment.

73's, Peter, KK4PG

Minutes of the ARASWF Meeting, 23 May 2006:

The meeting was called to order by Bill, K2ZEL, acting as chair in the absence of Carl and Peter. Carolyn, AI4CZ, was appointed secretary pro-tem for the meeting. There were 24 members and guests present. Following introductions, Bill asked for approval of the last month minutes as presented in the newsletter. K3ISH made the motion to accept the minutes, seconded by KI4IMI and approved by the members present. The treasurer's report was presented and the motion to accept was made by WB2QLP, seconded by WB8VQU, and approved by vote of the membership. One new member at the meeting, N1DL, Karl, has returned to the area and lives now in Naples area. We are glad to have him back in SWF.

Bill reported that the update for Write Log has been obtained and has been given to Eric, KI4HEY, who will be setting up the computer logging network for Field Day. He is also in the process of becoming the new webmaster for the club.

Field Day plans were reviewed by chairman WB2QLP. There was a map leading you to the site. We will be out in the field this year at Joe Goggin's, K9KNW.

Old business included the introduction of Carolyn, AI4CZ, as the new VE coordinator for the club.

Rodney, KI4DBI, is looking for more people for tri-athlon relay next month. If you can work, call Rodney.

In New business, the club received a request for the scheduling of an exam session prior to 1 July when the question pool changes. The request came from the staff at EOC who will be holding a course for their people prior to the test date. The date suggested was 28 June 2006. This time is necessary to allow the ARRL to publish the date and to get the exam materials necessary for the session. RL, W4GP, will take the information to the EOC.

The work party to move the club files and equipment from the Red Cross was successful and much of the materials are stored at KC4SSD, Tim's warehouse. Jordan has the Icom 746 and Peter has the IC-211, 2m xcvr.

Bill indicated that there were still a few DVD's of the space station qso. If you wish one contact him. There was a short discussion about a possible 6m am net following the wed 2m net. It would be encouraged that persons use vintage 6 m gear.

The 50-50 drawing was won by K9KNW, who donated his proceeds to the club. Thanks Joe.

Submitted,
Carolyn Conklin, AI4CZ
Sec.pro-tem

FIELD DAY 2006

Field Day will be held beginning at 1800 UTC Saturday, June 24, 2006 and ending at 2100 UTC Sunday, June 25, 2006.

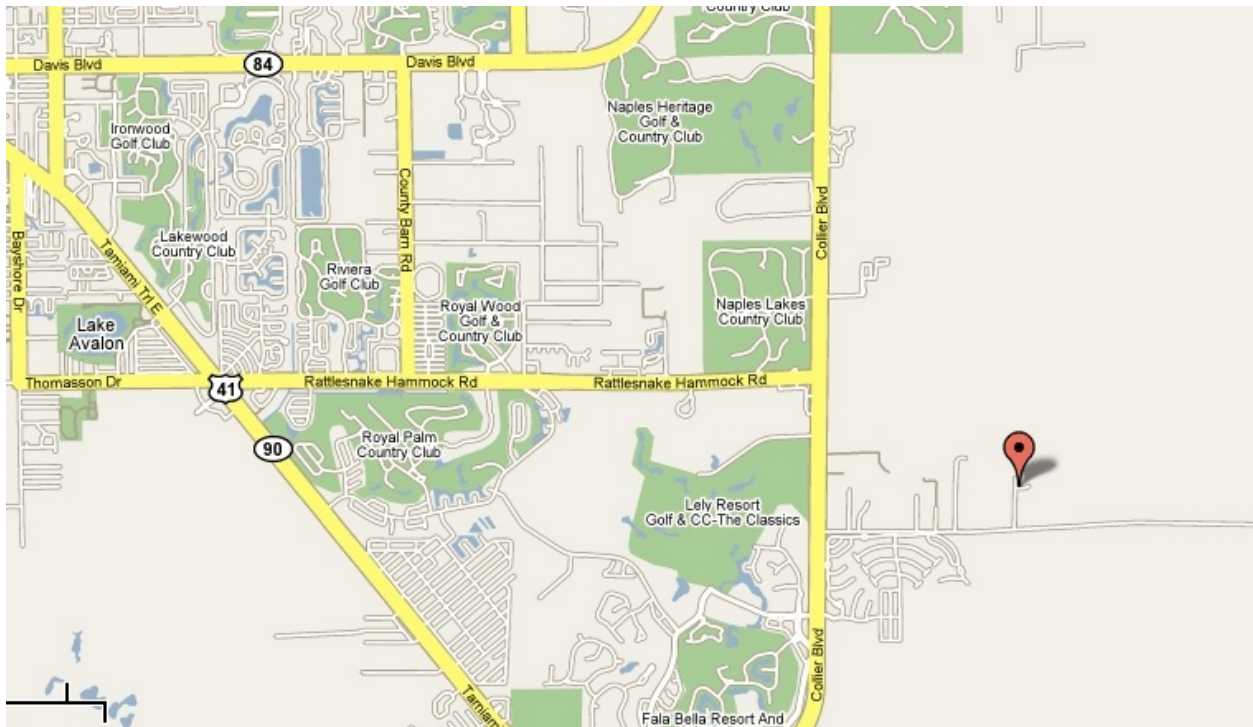
Location:

Joe Goggin's (K9KNW)
294 Brandy Lane
Naples, FL 34114

(DEC)	26.100558 N	-81.666448 W
(HMS)	26.03.26.61 N	81.38.32.44 W

Located off of SR951 (Collier Blvd) on Sabal Palm Road which is to the east of 951, north of the East Trail and south of Rattlesnake Hammock Road.

See Map Below:



AS USUAL, THERE WILL BE NO REGULAR MEETING IN JUNE DUE TO FIELD DAY

From Jordan Mash, WB2QLP:

2006 FIELD DAY OUTDOORS THIS YEAR

Due to our separation from the Red Cross HQ recently, the annual ARRL Field Day Event will be held outdoors, in the wide open spaces of Collier County on the weekend of June 24-25. No longer will the ARASWF club members enjoy the creature comforts that we have become accustomed to. Those are now memories of past contests.

Even though we have a GREAT location for this year's activity, the reality of heat, rain & mosquitoes will greet this year's participants. To many of the veteran radio operators that have experienced past Field Day Events and contesting before, know what to expect. We've done this sweaty 'outdoor thing' before, many times.

To those of you new to the hobby of Ham Radio, this year's event will welcome you to the real world..... operating radios in a simulated emergency environment in the heat & humidity of Southwest Florida in late June !

This light hearted article is not meant to bring you down about FD, its meant to stimulate you to come out to enjoy this hobby with fellow hams and friends and have FUN.....

But even if you don't have FUN out there, there's 2 things to remember:

1) there's gonna be lots of radios to play with and

2) WE CAN DRINK BEER --- C - C - Cold BEER !!!!! (we're on private property)

NUFF SAID 73's de WB2QLP..... c u there

2 element 40 meter Quad constructed

A Full Size 2 element 40 meter Quad Antenna has been constructed by ARASWF Club members N3ISH, KI4HEX, KK4PG, K9KNW and WB2QLP. This large antenna project was built up at the QTH of K9KNW, this year's Field Day location.

I saw this antenna project in a back issue of QST magazine , May 1973, and thought it is a do-able antenna for Field Day this year, since we have a big enough area to build it in. The artist's drawing in the magazine article was a bit out of proportion and made the build look easy.

But in real life, trying to get 2 pieces of # 14 wire, 50 feet up, 150 feet long, and spread into diamond shaped elements was a little bit more difficult than first anticipated. With the use of my tower trailer fully extended up with an additional 10 ft mast , we reached the necessary 50 ft, height objective. While on the ground, before raising the tower, we put on an 18 ft aluminum 'boom' so as to spread the elements apart . The 2 pieces of # 14 solid copper wire used for the elements was not easy to measure out

and keep from kinking up and tangling with each other. It was fun trying to keep them separated in the 90 degree heat, but after about 2 hours in the HOT sun, we finally got them spread apart.

Attaching the wires to the boom was next. One wire was used as a driven element on one end of the boom and the other as a director element on the other end. This was done with an eye hook thru the boom and a plastic tie wrap to an insulator holding each wire. Once we got both wires hooked to the ends of the boom we raised the tower to its full height. White nylon ropes were used to pull the wires apart into its diamond shaped configuration. The ropes were then tied to supports out to the sides to keep the wires in the diamond shape.

AND VOILA ! a 2 element 40 meter Quad was born..... After hooking up the coax, checking the MFJ 259 SWR Analyzer and a bit of pruning of the wires for resonance, we achieved a low SWR and nearly 50ohms at the feed point .

Hooking the antenna to a TS-440 Xcvr, the 40m band came alive.....Running only 100watts output , we worked many states with a BIG signal during the middle of the day when 40m is supposed to be closed.....

I can't wait to try this on 40m SSb & CW on Field Day.....come on out to FD and see this BIG WIRE..... 73 de WB2QLP

Some Things to Remember:

This will be an OUTDOOR EVENT! Bring bug repellent. Long pants and a long sleeve shirt might help with the bugs in the evening.

A flashlight would also be a good idea for nighttime operations.

If staying for the entire event inside don't forget any medications you might need as well as personal hygiene items. A hat? Sunscreen? The list goes on... as we say in Boy Scouts: "Be Prepared".

Other Items Of General Interest

From John Simander, NS0I:

“Operational Exercise” that local hams can participate in. 9th AF ROVER Team Operation EAGLE RESCUE Support plan on July 10--17.

Anyone interested should get in contact with:

KF4MJJ, Fred Collier County EC

frededwards@colliergov.net

WB2QLP, Jordan Asst. Collier County EC

wb2qlp@aol.com

KG4WSG, Rick Collier County Emergency Coordinator

RichardZyvoloski@colliergov.net

From Jordan Mash, WB2QLP:

Grid Locator Intro

Home > Ham Maps > Grid Locator > Intro

. • This page introduces the world Grid Locator system, and discusses how to find out what your own Grid Locator is.



The IARU Grid Locator System. Grid Squares are being used more and more by Radio Amateurs throughout the world to identify the location of their stations. First proposed at a conference in Maidenhead, England in 1980 (and hence sometimes called Maidenhead Locators), grid squares allow three levels of precision (two, four or six character) to define a station's latitude and longitude. As will be seen by the world map on the next page, the world is divided into a grid of squares that are ten degrees of latitude high by twenty degrees of longitude wide. Each square is identified by a different two-letter code. For example, Ireland is in location IO.

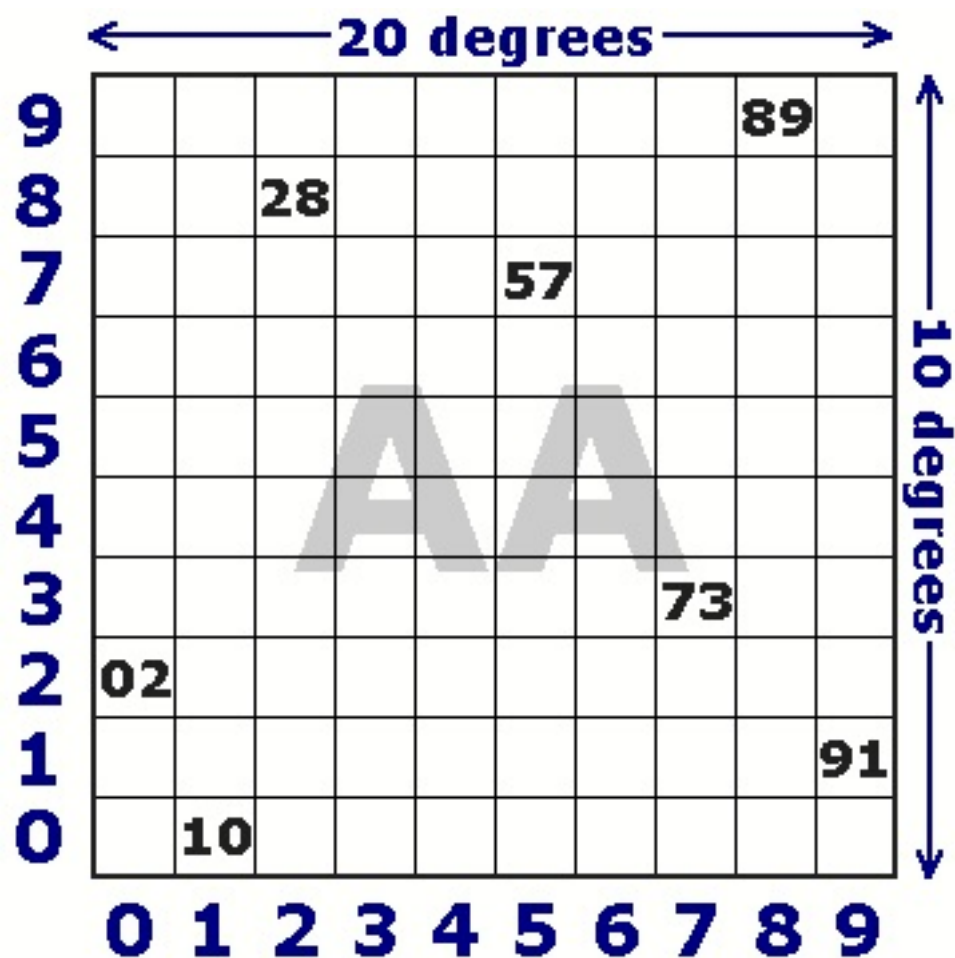


Fig 1: First Sub-Division

Each of these squares is further divided into 10 on each axis, giving 100 sub-squares, each of which is one degree of latitude high by two degrees of longitude wide. A diagram of this can be seen in Fig. 1. Each of these squares is identified by the two letters of the alphabet from the map above (generally shown in capitals), and two numeric characters. For example, Dublin is in location IO63.

For higher precision, each grid square may be further divided into 24 on each axis, giving 576 sub-squares, each of which is 2.5 minutes of latitude high by 5 minutes of longitude wide. A diagram of this can be seen in Fig. 2. Each of these sub-squares is identified by the two letters of the alphabet and two numeric characters as before, plus two lower-case alphabetical characters. Using this system, a station's location is thus identified to within better than 5.6 nautical miles anywhere on the surface of the Earth. For example, the centre of Dublin, at latitude 53d20m N and longitude 06d16m W, is in location IO63ui.

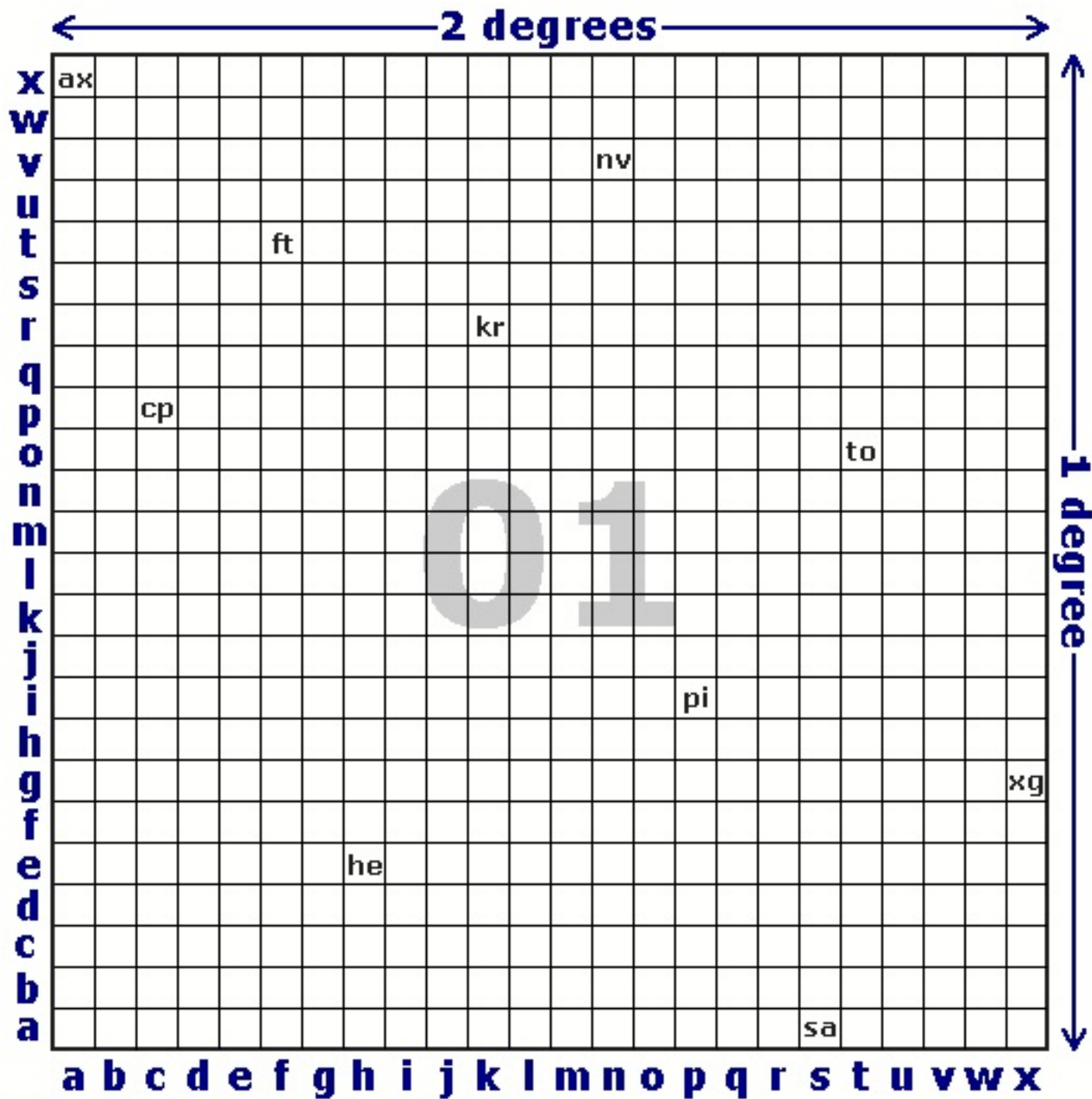


Fig 2: Second Sub-Division

The easiest way to find out your own Grid Locator is by using one of the following resources:

[Amsat Grid Conversion Page](#) An online resource on the Amsat website that will convert Latitude/Longitude to Grid, and from Grid back to Latitude/Longitude again.

[WinGrid Ver3.6](#) This program calculates grid squares from latitudes and longitudes, the reverse, and calculates distances and headings from two sets of lat/long or grid squares. The program saves your home QTH information, converts from miles to kilometers, and allows switching between "DD MM SS" and "DD.ddddd" formats. For a real time display of Grid Locators, visit my [Global Overlay Mapper](#). To see a World Grid Locator Map, click [Here](#).

Editors Note: Peculiarities in various internet browsers may cause improper display of some of the above referenced pages.

6M - The Magic Band

And so the magic starts...long ago...on a hot July afternoon back in 1938, as Harry - W6DNS, returns from work to his hillside home in San Diego. Before taking a short pre-dinner nap, Harry tunes across "five" and hears the usual hiss of a dead band. Wakening for dinner he checks the band again. Dinner will have to wait tonight. The band is full of signals...more than Harry has ever heard before! He later reports to RADIO magazine, "What a shock I got! The band sounded more like "ten" than "five". W1's, 2's, 3's, 5's, 6's, 7's, 8's and 9's were coming through. The QRM was terrific...."

Twenty-five hundred miles to the east, Nat - W1EYM, in Connecticut, is also carefully tuning "five", hearing mostly stations from the central states and the Great Lakes area. Digging a little deeper he is shocked to hear the S7 phone signal of W6DNS in QSO with a W7! Nat anxiously waits for the two stations to sign before calling the Californian and then holds his breath...he knows that if he hears a reply, things will never be quite the same for "five" again.

"W1EYM this is W6DNS in California!" is heard through the QRM and at 1810 PDST the first confirmed trans-continental double-hop QSO on the "ultra highs" forever becomes part of history.

Up until this point, "five" had always been regarded as unpredictable with 'quirky' propagation. Amateurs had discovered that for some reason, the summer months would provide sporadic openings out to 800~1000 miles. There had been rumors of W1's hearing W6's and even reports of trans-Atlantic and trans-Pacific receptions...but always unconfirmed and often dismissed as "wishful thinking" or "bootleg" operators. But there was no mistaking what had happened on July 24, 1938!

Eventually amateurs would trade "five" for what would become known as today's "magic band"... but I think Harry and Nat had already discovered the magic, back on that warm summer evening, long, long ago.



W6DNS - Harry Hasenback of San Diego, CA. Harry used a National NC 1-10 super-regen receiver along with a homebrew HK54 parallel line grid circuit oscillator driving a pair of HK54s at 175W input. The power supply and transmitting gear were all located on the roof in a plywood box in order to reduce feedline losses. His antenna for the milestone QSO was a vertical collinear array consisting of 3 half-wave elements with directors on a 50' mast.

(QST Sept 1938)



W1EYM - Nathaniel Bishop of Fairfield, CT. His carefully assembled station consisted of a homebrew acorn tube converter feeding a Hammarlund Super Pro for receiving while the transmitter used the newly introduced 6L6 to drive a pair of 6L6's in the final. Nat also used a vertical array fed with a Johnson 'Q' match.

(QST Sept 1938)

6M from Western Canada

Six meters has been my favorite band for over thirty-five years. I first got on six back in the early 70's using a homebrew FET 'handbook' converter and a homebrew 6360 transverter at 8W output. I was hooked from the beginning, managing to work 32 states during that first summer on six. I learned very early that openings could easily be predicted by knowing when you were leaving the house as it seemed (and still does!) that the band was always open when you were not at home. Part of the challenge of six is just being able to be there when the band is open!

PROPAGATION - on six from southern VE7 land is probably about the poorest in North America, with the exception of points to the north (Alaska, northern BC, VE8). The major propagation mode on six is during the summer months and is via "SPORADIC-E" or "Es". Starting about mid-May through to mid-August, peaking around early July, the band can open at any time via this fascinating mode. Typically, Es will peak in the morning and in the late afternoon and evening hours. From south-west B.C., most Es openings are single-hop, and favor the south-western states from California to Colorado. Several times each summer, openings will extend out to the eastern states, eastern Canada and down to the southern states. There always seems to be at least one or two openings via multi-hop Es into the Caribbean each summer but these are usually early in the morning and short-lived.

These unpredictable openings are part of what makes six so interesting. Often, signals via Es will reach bone-crushing strength. Often the band will open in an instant, as if someone has just thrown a switch. Listening on the calling frequency (50.125), I have often heard stations suddenly appear in mid-sentence, as the band suddenly pops open for the evening! Since the main generator of Es is now thought to be related to high-speed wind shears, this 'sudden' open band concept is easier to understand.

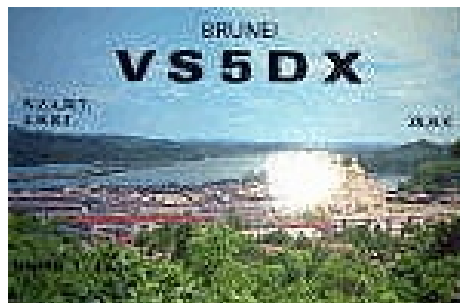
F2 - the real workhorse mode of the HF bands is much rarer on the magic band. Only during peak years of the solar cycle is six meters likely to support propagation via the F layer. We have been fortunate in that the last three cycles have been 'big' ones and have generated sufficiently high levels of solar flux to open six via the F layer. On the other hand, Cycle 20, peaking in the late 60s, was a very poor performer and only one QSO via F2 from western Canada is known to have taken place, when VE7XF worked several KH6s in March 1969 following a strong auroral event the previous day. During peak solar years, with sustained flux levels in the low to mid 200s, one should start watching for F2 openings starting in late October through to late March. Typical openings from VE7 land will start towards VE1/W1 and go from there. Normally the band will slowly shift towards the Caribbean and Central/South America and then out to the Pacific and Japan. On rare occasions, morning openings will take a more northerly direction providing a very rare polar path while afternoon openings might dip more southerly towards New Zealand and Australia. There is only one certainty....you just never know what the band might do!

One of the most fascinating activities associated with 'solar high' winters is to watch the m.u.f. rise from 10m to 6m by slowly following all of the commercial FM activity in the 30-50MHz range. Paramedics, fire crews and police services can be easily heard, often with sirens blazing in the background, as the m.u.f. climbs towards 6m. New York or Boston accents will usually indicate that six will open to the east coast on the northerly path, while southern drawls should alert you to possible Caribbean signals about to reach 6m. Each morning will be different, with the m.u.f. rising slowly over one to two hours while other mornings it can shoot up like a rocket in a matter of one or two minutes. Often, the m.u.f. will climb to 47 or 48MHz and stop, then slowly drop which means no 6m DX on those days!

Magic or Not? - You Decide

During Cycle 21, I operated 6m from a suburb about 25 miles N-E of Vancouver. My station consisted of a little Yaesu FT-620 transceiver (10W) driving a homebrew 5894 amplifier at about 100W output. My antenna was also homebrew - a 5 element 'W1HDQ' yagi on a 12' boom at 55'. There were many 'magic moments' during Cycle 21, as it was my first exposure to F layer propagation on "six".

One of the more interesting contacts of Cycle 21 was on November 10, 1981. The band had opened to JA in the afternoon and I had worked a number of JA's until the band closed at around 1600 local time. Needing to do a little repair work on the antenna changeover relay on my amplifier, I decided that it was safe to take the amplifier apart, repair it, and be ready for anything that might happen the next day. I disconnected the amplifier and started the repair work, having plugged the antenna into the transceiver to monitor the calling frequency (50.110 in those days). At around 1715 I went upstairs for dinner but no sooner had I arrived upstairs when I heard an SSB signal on the calling frequency. Knowing that the band was 'dead', I ignored it until I heard it a few more times, coming from the basement shack. Going back to the shack, I was shocked to hear VS5DX in Brunei calling CQ! With my amplifier torn apart on the bench, my heart sunk as I realized that my 10W transceiver would never be enough to make the QSO...but wait...wasn't this the magic band? Somehow my lowly ten watts found its way to Brunei with no problem (7300+ miles) and VS5DX was worked at 1730 local time, over forty minutes after sunset.



One of the most exciting days ever, occurred on June 10, 2001, in the middle of the ARRL summer VHF contest. The band had been very quiet with little activity other than locals and the odd signal on scatter from the south. At around 1030 local time, Ralph (VE7XF), had been listening to K7RAT on CW tropo-scatter when he heard the Oregonian calling a European! Listening closer, it became apparent that Tree was running Europeans. Ralph quickly alerted myself and Jason (VE7AG) on two meters and all of us swung our beams towards Europe...and waited. About fifteen minutes later, ON4GG's 599 signal appeared out of nowhere and was quickly worked. This was not only my first European QSO on "six" but also the first ever "VE7-Europe" contact made on 50MHz since the band was established in 1946. Both Jason, Ralph and Gabor (VE7DXG) also hit pay-dirt that morning as we all worked a number of Europeans before the magic stopped, a few minutes later!



A memorable day from Cycle 23 was January 4th, 2002. The 'normal' opening to the east coast had failed to appear that day. What was really happening was that the skip was just longer than 'normal' as the first signal to appear was around 1015 in the morning. It was EH8BPX in the Canary Islands! I had only heard Africa once before (in Cycle 21) and had failed to work it. I was determined not to let my next chance at completing W.A.C. on "six" slip away! As it turned out I needn't have worried as the signal from Africa steadily got stronger and stronger and was in for well over an hour. Several other locals were fortunate enough to be around that morning as well to catch a very, very rare opening from VE7 to Africa on "six". Nothing was heard again until around 1330 local time when I began to hear the OX3 beacon from Greenland. A short CQ on 50.110 brought a thundering reply from OX3OX, running 100W to a dipole! Ole kept CQing for another fifteen minutes with no replies as apparently all of the locals had abandoned the band. For the next ninety minutes I periodically keyed up on .110 and asked, "Are you still there Ole?" and always got a response, as he was quite content to just monitor on .110 while doing other things in the shack. It was truly an interesting day on the magic band.

WAZ 33		CANARY ISLANDS - SPAIN		ITU 36			
EH8BPX							
CONFIRMING QSO WITH			GRID IL 18 SK				
RADIO	DATE			UTC	MHz	RST	MODE
	DAY	MONTH	YEAR				
VE7SL	4	1	0218	24	50	59	SSB
AVELINO MARTIN Chamano, 15 38370 La Matanza Tenerife - I. Canarias - España							
<input type="checkbox"/> PSE QSL <input checked="" type="checkbox"/> TNX QSL							



Working Aurora on "six" is usually fairly predictable. With the beam pointed to the northern auroral zone, the geometry is such that signals from Washington, Oregon and Idaho are usually dominant. Occasionally, signals from further east such as VE5 and WØ will make it here as well. On the night of October 28th, 2000, as Cycle 23 was ramping up, the 'normal' aurora became something very different.

I had been listening to auroral CW signals from Washington and Alberta, with the occasional peep from VE5 when I heard something that sounded too strange to be true....a VK4 calling CQ! I quickly turned my beam towards Australia and listened intently but heard nothing. Bringing the beam back to the north produced the VK4 once

again, with a pure auroral "buzz" on his signal. Evidently the signal from down-under was propagating across the Pacific (still in daylight) via the F layer and arriving at just the right angle to reflect from the auroral curtain in northern BC or Alaska, as the signal peaked towards the N-W. Over the next hour, four VK4s were worked on CW, all with the beam pointed towards Alaska! They also reported that my signal had the tell-tale "buzz" of aurora. True to the words of Robert W. Service, "The Northern Lights have seen queer sights...", both the aurora and the magic were working overtime that night.



October 15, 2000 was another day that "six" chose to demonstrate its mysterious charms. A solar flare the day before had put most ops on high alert for anything unusual. There had been little activity on the band since mid September. At around 0850 local, PYØFF on Fernando de Noronha was heard and worked with weak signals both ways. No other signals were heard before or after his sudden appearance. The band remained quiet until a little after 1000 when LU5VV in southern Argentina made an equally sudden appearance. Located in grid square FE48 (a little over 7000 miles away) his signal was exceptionally strong, peaking 30-40 db over S9...almost as if he were in the next block. He explained to me that he had blown the final transistor in his transceiver and had to make a substitution with the only suitable one in his junk box. He was putting out about 8 watts. Pure magic!



Tuesday, July 8th, 2003 started out like any normal summer morning but would soon turn into the most exciting day I have seen in over 30 years of operating on "six". The band was already open when I got out to the shack at 0730. For the next hour the band bounced around between the Great Lakes states and Ontario with the odd W2 popping up now and again. The skip was decidedly east-west, favoring the border states. There had been massive Es openings all day in almost every part of Europe, with Es strong enough to get to 2m for much of the day. With the Es building quickly in North America,

it looked like things could get interesting.

At 0845 the band suddenly went quiet and nothing was heard for about 30 minutes when the 5x9 signal of VE1YX was heard. The appearance of VE1 via Es is very rare. As he faded out, K1TOL in Maine took over, his 5x9 signal being the only one heard on the band. About ten minutes later, Lefty faded out and VE9DX appeared! It had been an interesting morning but the best was yet to come. As Andy's signal faded away, the band apparently went dead...or had the skip just shifted further to the north? No beacons were heard but a quick check of the 48.250 western European video channel showed a strong signal. The video buzz was continuing to build in strength when suddenly IK2ECC (599) appeared on the band calling CQ! Two more Italian stations were worked before the band shifted to Germany and then to the Netherlands. This amazing propagation lasted for an unbelievable two and a half hours with 44 different European stations worked as the spotlight shifted around Europe from the UK, the Baltics and Italy. Evidently the widespread Es generators in Europe as well as in North America were accompanied with intense Es over the north Atlantic and the polar regions. A later check of the geomagnetic polar activity showed almost nothing happening in the auroral zone - the day was the quietest in several months. I suspect the almost total absence of geomagnetic activity played a large part in the stability and generation of the global Es that developed that day. It was surely a day to remember on the magic band and probably one, not likely to ever be repeated!

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FOR SALE



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

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