

The OVH ARC Newsletter
"OLE VIRGINIA HAMS" AMATEUR RADIO CLUB, INC.
Post Office Box 1255, Manassas, Va. 20108
Repeaters - W4OVH - 146.970- & 224.660- & 442.200+
OVH Nodes - Port 1: 145.030 Mhz; Port 3: 223.540 MHz;
Port 4: 440.925Mhz 9600 Baud backbone / N3OH (SYSOP--BILL)
<http://www.w4ovh.net>

OLE VIRGINIA TIMES

AUGUST 2007

Next Meeting: August 20, 2007

PRESIDENT'S LETTER:

Greetings to all, hope everyone is doing well and keep cool during the summer heat.

The next OVH meeting (Monday Aug 20th) will be of great interest to all. Thanks to John (KG4NXT), we'll have a interesting program by Sean Sheedy/AI4ID who provided spectrum analysis for VHF rigs at the OVH Hamfest in June. I don't know how many were able to see Sean's set up at the Hamfest, but you'll another opportunity at the meeting at which Sean will discuss and demonstrate his techniques and theory and answer questions. This should not be missed!



I would also like to begin discussion on several proposed changes for the 2008 OVH Hamfest. I believe an open forum discussion and brainstorming session for all ideas is the best way for us to insure we choose the best future fit for the OVH. I have some ideas, and I'm sure others do as well. Please be prepared to discuss them. If you want to part of the discussion and decision making processes, be sure to come to the meeting.

On Saturday, August 25th, the OVH will again be having a Special Events Day station operating to commemorate the Second Battle of Manassas which occurred 145 years ago - in August, 1862. AI/KB4BHB and others have again done a lot work to prepare for that. More details below.

Update on the CNC design competition won by Karl/W4KRL: we are trying to get the milling demonstration scheduled shortly. As soon as we have a date, we'll email everyone on the OVH reflector. Anyone interested in watching the CNC machine manufacture the panel will be welcome.

73 George K4GVT

Ole Virginia Hams Amateur Radio Club, Inc.

Post Office Box 1255
Manassas, Virginia 20108

OFFICERS

President:	George Tarnovsky	K4GVT	791-5956
Vice Pres:	Ruth Frock	KU4WH	331-1234
Secretary:	Wayne Phillips	N7QLK	393-8447
Treasurer:	Bill Ellis	WA4FIC	335-9935

DIRECTORS

Don (Butch) Blasdell	W4HJL	369-2877
Art Whittum	W1CRO	791-4330
Charlie Dale	WA4YGI	361-3091

WEEKLY NETS

Thursdays - 8:00 PM	JOHN H	257-3566
---------------------	--------	----------

HAMFEST 2007

Butch	W4HJL	369-2877
Charlie	WA4YGI	361-3091

FIELD DAY 2007

George T.	K4GVT	791-5956
Butch B.	W4HJL	369-2877

CLUB ROSTER

Blaine	KB4RKL	369-2877
--------	--------	----------

EDUCATION

Mark	WA4KFZ	818-8033
------	--------	----------

CLUB EMERGENCY COORDINATOR

David Meola	KI4AZX	393-6681
-------------	--------	----------

ARES AREA EMERGENCY COORDINATOR

David Lane	KG4GIY	361-3042
------------	--------	----------

F.A.R. REPS.

Ruth	KU4WH	331-1234
Mary Lu	KB4EFP	369-2877

FINANCE

Mary Lu	KB4EFP	369-2877
Bill	WA4FIC	335-9935
Ruth	KU4WH	331-1234

GENERATORS

Steve	N4OGR	361-0008
Keith	KM4AA	909-1512
Al	KB4BHB	368-4794

HISTORIAN

Theresa	KG4TVM	257-3566
---------	--------	----------

HOME PAGE

Bill	N3OH	590-9562
------	------	----------

JOTA

John H.	KG4NXT	257-3566
---------	--------	----------

LEGAL

Pete	KB4RME	369-2436
------	--------	----------

MEMBERSHIP CHAIRMAN

Joe Dobes	KI4OHR	369-2639
-----------	--------	----------

NEWSLETTER

Paul	W4ZB	754-0910
------	------	----------

NEWSLINE

Karl	W4KRL	802-1527
------	-------	----------

PACKET

Alan	KD4KBX	330-8844
Bill	N3OH	590-9562

PROGRAMS

TBA

PUBLICITY

Trisha Wells	KI4PCM	335-1096
--------------	--------	----------

QUARTERMASTER

Steve	N4OGR	361-0008
-------	-------	----------

REPEATER CONTROLLERS

Art	W1CRO	791-4330
Butch	W4HJL	369-2877
Milt	N4SN	369-7265
Steve	N4OGR	361-0008
Alan	KD4KBX	330-8844

REPEATER TRUSTEE

Art	W1CRO	791-4330
-----	-------	----------

SCHOLARSHIP

Jim	W4JTP	392-0150
-----	-------	----------

SUNSHINE

TBA

TECHNICAL COMMITTEE

Art	W1CRO	791-4330
Alan	KD4KBX	330-8844
Bill	N3OH	590-9562
Butch	W4HJL	369-2877
George	K4GVT	791-5956
Karl	W4KRL	802-1527
Bob	K4HJF	335-1939

All telephone numbers listed above are for Area Code 703 unless otherwise noted.

The OVH Times is the official publication of the "Ole Virginia Hams" ARC, a non-profit organization, dedicated to the promotion and enhancement of Amateur Radio. This edition of the OVH Times is Copyright © 2007 by the Ole Virginia Hams Amateur Radio Club, Inc.

The OVH ARC meets at 7:30 p.m. local time every third Monday of the month at the NOVEC Tech Center on Wellington Road in Gainesville, Virginia. Prospective members or other interested persons are invited to attend. Local information can always be obtained, at any time, through the OVH's FM repeaters on 146.97 & 224.660 Mhz. All are welcome. Up to date information about OVH activities and meetings is also available on the OVH web site at <http://www.w4ovh.net>.

Permission is hereby granted for the reprinting of articles and quotations in this letter provided full credit is given to the OVH ARC and the author or other source of the article. Contribution of printed articles by both members and non-members is encouraged. The deadline for submissions is the 5th of each month. Submissions should be forwarded to OVH TIMES Editor: W4ZB@RLAW.COM.

Letters to the Editor and Classified Ads are accepted and welcome. Approx. Circulation - 170.

Last Rev: 07/09/2007

Sunshine Corner:

Happy Birthday to our friends and fellow Hams this month: D.C./WD4FOX, Jim/WD4OJY and Dale/N4EGE.

Welcome to three new OVH members: Gil/KE4SPQ, David/KI4HE and Bruce/AB8CI.

Best wishes to Gary/WG4ARC for a complete and successful recovery from his recent surgery.

This monthly Sunshine Corner column needs a new volunteer now that Jan/KE4TMW has stepped down after many years of service! Qualifications: someone with his or her ear to the ground who is somewhat active in the OVH Club and in touch with at least some of the other members regularly; minimal writing skills but must be able to send short email information tidbits to the editor for inclusion in the Newsletter. Someone please step forward and volunteer for the Sunshine Corner! Of course, anyone can send information to be included too.

Minutes of the Ole Virginia Hams Amateur Radio Club Meeting July 16, 2007:

George / K4GVT called meeting to order at 1930 Eastern Time.

Following the Pledge of Allegiance, all present stated their names and call signs. There were 21 OVH members present.

PROGRAM

Mark/WA4KFZ gave a presentation called "Digital CW: A Modest Proposal" which he gave at the Dayton Hamvention this year.

BUSINESS MEETING

The minutes of the June 2007 meeting were approved.

Treasury report: Balance is in good standing. Report approved.

Committee Reports:

Training: General class- Mark/WA4KFZ will start working on preparing a General Class program in the fall (10 sessions). Brain/WC4J is to work on preparing a Technician Class for the fall as well. Dates and locations for both classes will be announced soon.

Membership report: One person read-in: Phillip Simerly/KI4WCG. Three people voted in: Gil Archibald/KE4SPQ, David Leiss/KI4HE, and Bruce Bryant/AB8CI. We welcome these new members.

ARES: Steve/N4OGR - ARES training will be occurring on July 21st at the Prince William Emergency Operations Center. The Marine Corp Marathon will be held this year on October 28th. Prince William County National Night Out will be held August 4th at the McCourt Building. Be sure to check batteries and Emergency Power since hurricane season is approaching.

Old Business: August 25th - Special Event Day to be put on by the OVH as a commemoration for the Second Battle of Manassas, 145 years ago. Details are on the OVH website. Bill/N3OH

and AI/KB4BHB are working on this; OVH will set up in the parking lot behind Strayer University which is located right next to the Manassas National Battelfield Park.

Gary/WG4ARC is recovering from gall bladder surgery. We wish him a speedy recovery.

New Business:

Joe/KI4OHR received a thank you note from Cedar Point Elementary School thanking OVH for helping with the International Space Station contact that occurred at the school during their Space Week Activity. The school is interested in having OVH assist with future contacts.

Steve/N4OGR will investigate acquiring a new storage facility for the club due to increasing costs associated with the current facility.

50/50 for \$12: George/K4GVT won the raffle and donated the proceeds back to the club.

Meeting adjourned: 20:34

Reminders about some upcoming events / calendar dates:

HAMFESTS

September 15th and 16th. Roanoke Division Convention, Virginia Beach, Virginia sponsored by Tidewater Radio Conventions. Details at <http://www.vahamfest.com/>

OPERATING EVENTS

August 25th (Saturday) - OVH Special Event Day - Commemoration of the Second Battle of Manassas - August, 1862. More details below from AI/KB4BHB, also at <http://w4ovh.net/>

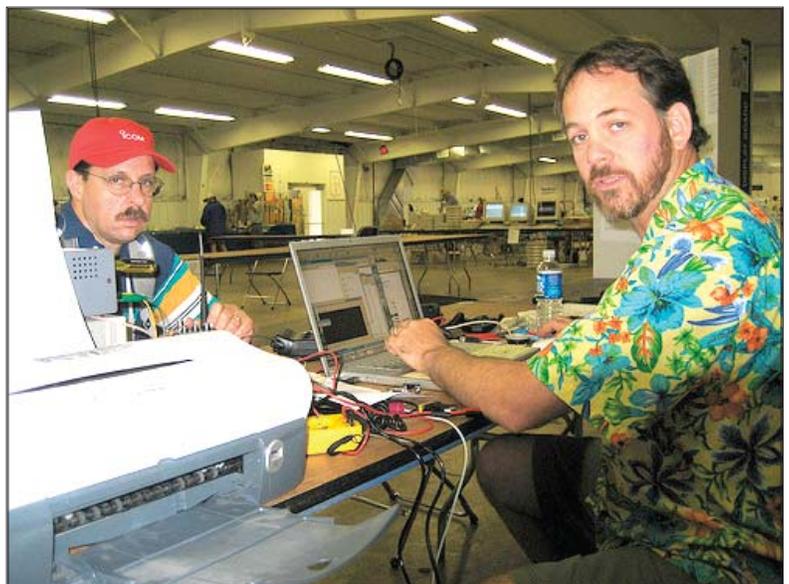
September 8th-9th (Saturday - Sunday) - ARRL VHF Contest. Brian/WC4J and Bill/N3OH are looking for helpers to get all antennas and equipment fixed up at Brian's QTH for this contest which will be hosted by Bill/N3OH and operated under Bill's callsign. Contact either if you have time and energy to assist ahead of time or during the contest.

Remember the OVH Hamfest in June?

To the left (L to R) are Mark/WA4KFZ and Sean/AI4ID at Sean's radio parameter measuring setup indoors during the 2007 OVH Hamfest.

Sean will be the program speaker about this setup at the upcoming OVH monthly meeting on August 20th.

Be sure to attend!



OVH Special Event Day – August 25, 2007

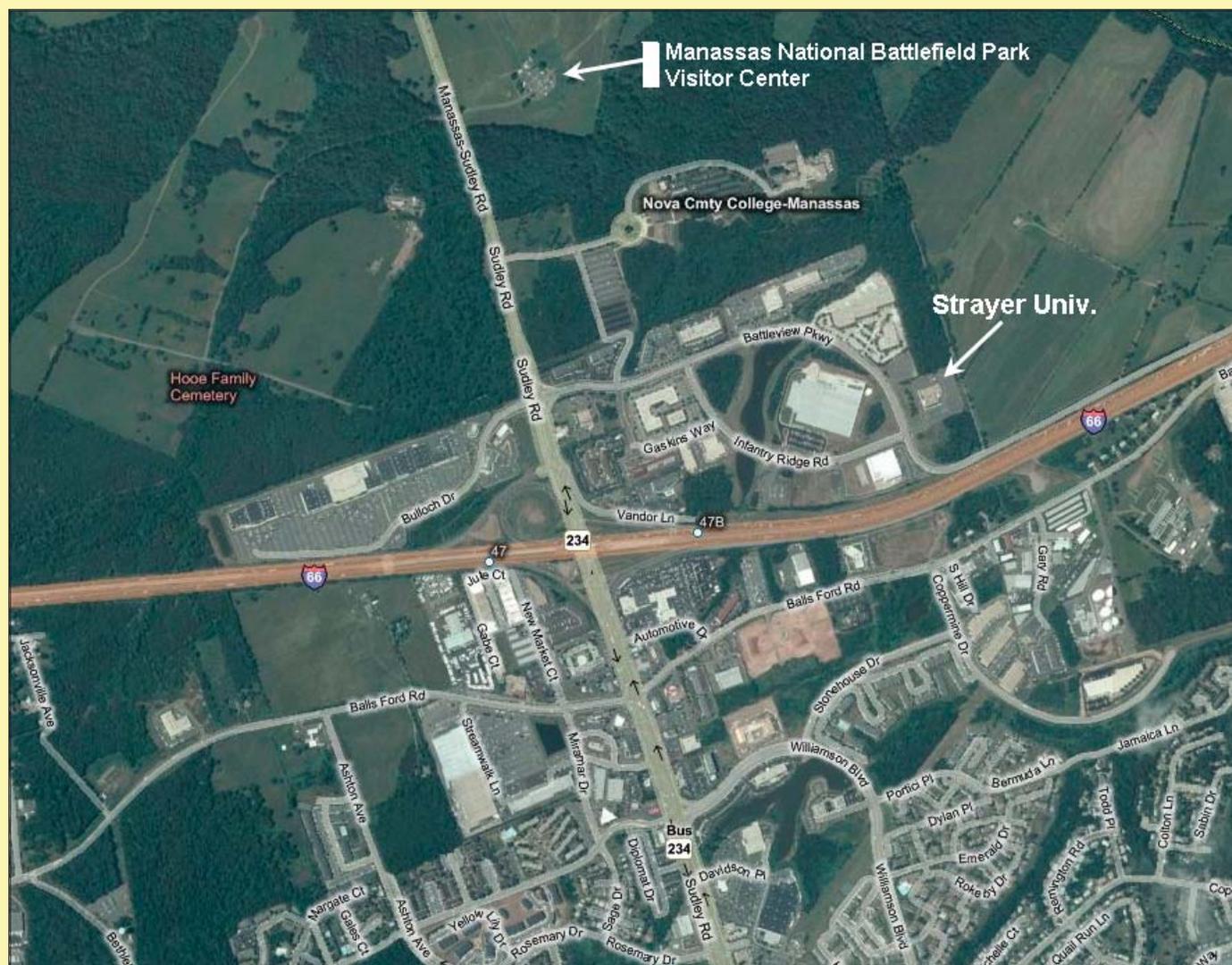
Our upcoming Special Event Day to commemorate the Second Battle of Manassas will occur on Saturday, August 25, 2007. We will set up and operate from the rear parking lot at Strayer University, Manassas, Virginia [9990 Battlefield Parkway, Manassas] from which part of the actual battlefield is visible. See the map/aerial image [below] for the location. Thanks to Strayer University for allowing us to use their facilities.

Thanks to Bill, N3OH, this Special Event has been listed on the ARRL's Special Events web page and was announced in QST for August 2007. Special thanks also to Brian, WC4J, who will be bringing his trailer which we will use for operations from 8:00 am to 4:00 pm. The HF frequencies to be used will be 7.262, 14.262, 21.362 and 28.462.

During this Special Event Day in 2006, we made hundreds of contacts on HF, VHF and by Satellite, and expect to do the same again this year — so we need your help. If possible, try to get there earlier that morning to help out with set up. Talk-in will be on the OVH repeater [146.97]. If you can't make it early, at least plan to stop by or contact the special event station from your home QTH. A Special Event QSL card has been made up for all contacts. Further for details on w4ovh.net and last minute information will be provided on the OVH Thursday Evening Net [146.97] at 8:00 pm on August 23rd.

Alfred P. Dugas, KB4BHB, Chairman

Where To Go For This Special Event:



The Special Event QSL Card:

Be sure to work the
Special Event Station
to get one of these!



Several slides from the program given by Mark/WA4KFZ at the July 2007 OVH Meeting based on Mark's presentation at the 2007 Dayton Hamvention:

Digital CW – A Modest Proposal

2007 Dayton Hamvention® – Ham Radio Town Meeting

Mark D. Braunstein WA4KFZ
19 May 2007
wa4kfz@arri.net

A New Paradigm

- Instead of thinking of CW as an emission mode (A1A, etc.), think of CW as an efficient user interface

Parameter	Keyboard	CW
Size		↑
Weight		↑
Power		↑
Versatility	↑	

Keyboard ← User Interfaces → CW

Digital CW - A Modest Proposal (WA4KFZ) 3

Mapping Dots and Dashes to ASCII

Contact Closures	ASCII Character Set	Digital Output
<ul style="list-style-type: none"> Paddles: <ul style="list-style-type: none"> •Dot •Dash Straight Key: <ul style="list-style-type: none"> •Key-up •Key-down Keyboard 	<ul style="list-style-type: none"> Infrequently used characters: <ul style="list-style-type: none"> •Device Control (DC) •Bell •ACK/NAK Frequently used characters: <ul style="list-style-type: none"> •Letters •Numbers •Punctuation 	<ul style="list-style-type: none"> Digital CW <ul style="list-style-type: none"> •PSK31 •MFSK16 •OLIVIA Digital Text <ul style="list-style-type: none"> •PSK31 •MFSK16 •OLIVIA

This is **NOT** Morse/text conversion

Process Flow →

Digital CW - A Modest Proposal (WA4KFZ) 4

Mapping Example – The Letter “A”

Morse Code	Dot	"Key Up"	Dash
Paddle	DC1	(element spacing)	DC2
Straight Key (Option 1)	DC1		DC1DC1DC1
Straight Key (Option 2)	DC1	DC2	DC1DC1DC1

Only 2 distinct ASCII characters need to be demodulated

Digital CW - A Modest Proposal (WA4KFZ) 5

Mark giving his Digital CW
talk during the
July 2007 OVH meeting:

Contact him for a copy of the
PowerPoint file containing all of his
slides and accompanying notes.



Some Follow Up Notes About (Digital) CW / Digital Modes

1. Full Break-In (manual) CW operation. Mark polled the group during his talk, correctly noting that full break-in is unnecessary for casual CW operation and that relatively few CW operators today still take the extra steps usually needed to achieve or enable this type of operation.

What does full break-in mean? It means a station set up which allows the transmitting CW operator to listen to signals on the receiving frequency whenever he or she is not actually transmitting RF, i.e., between the dots and dashes of CW characters being sent and the spaces between them. What is the advantage of this? The receiving operator [by transmitting] can interrupt the sending operator immediately at any time - to receive a repeat [of missed information] or to request standby [e.g., to take an incoming telephone call], etc. This capability is also very advantageous in DX and contest operations to avoid interference with other stations because it permits the transmitting operator to stop sending immediately if the DX station or contest station being called answers another station.

Is it difficult to set up for full break-in CW? Certainly not - if you use a separate transmitter and receiver (i.e., not a transceiver), relatively low power on transmit, and have separate (spaced apart) antennas available for transmit and receive. All that is needed in such a situation is to prevent the receiver from being overloaded so much that it cannot recover quickly (i.e., almost immediately); this can sometimes be accomplished satisfactorily simply keying a mechanical relay (with the transmitted CW) to short the receiver antenna input to ground; more elaborate (usually better) solutions involve the use of semiconductor diode switching techniques. Modern transceivers which have good CW and ARQ digital mode capabilities usually permit semi-break-in operation - which means relatively fast switching. The ARQ [Automatic Repeat Request] digital modes (Amtor, Pactor and Clover) all require very fast transmit/receive (T/R) switching. Fast T/R switching and full break-in capability is also achievable with high power operation using PIN diode switching systems. Ameritron (now affiliated with MJF Enterprises) sells a PIN diode switcher for use with a high power amplifier. Alpha amps have them.

2. QST for August 2007 (at pg. 89) has an article about software CW decoders. The article describes specific freeware and low cost software for Windows and Linux which can do this effectively according to the author.

3. More along the lines of Mark's talk, but with a somewhat different approach, DUBUS magazine (3rd Quarter 2007) at pages 52-62 presents an article: "CW for Weak Signals Applications" by DJ5HG.

4. The IEEE Proceedings for June 2007 at pages 1150-1177 is a survey / tutorial article about the developments in channel encoding over the last 50 years: "Channel Coding - The Road To Channel Capacity." The article points out the Turbo Code approaches developed intensively since 1993 now offer coding gains very close (within 5%) of the ultimate limits Clyde Shannon predicted in his seminal 1948 paper for memoryless channels. A raw long distance HF radio path is not "memoryless" but can be made to appear to be when a suitable symbol interleavers are used. No digital HF ham radio systems are yet using Turbo Codes and interleavers.

ARRL Files Reply Brief on July 31, 2007 in BPL Controversy

On July 31, the ARRL filed its reply brief at the US Court of Appeals for the District of Columbia Circuit. This brief follows the FCC's brief that attempted to rebut the ARRL's challenge to the FCC's Broadband over Power Line (BPL) rules enacted in late 2004 and affirmed by the agency in 2006. According to ARRL General Counsel Chris Imlay, W3KD, "The FCC's brief

does not accurately describe ARRL's arguments concerning harmful interference." The ARRL, in its reply brief, accuses the FCC of, "engaging in misdirection -- rebutting hyperbolic arguments ARRL never made, refusing to address the precedents ARRL cited and attempting to rewrite the Orders as if they made factual rather than legal determinations."

Anyone wanting accurate information about the legal aspects of the BPL controversy needs to read the ARRL's Reply Brief available at: http://www.arrl.org/tis/info/HTML/plc/Court_Appeal_ReplyBrief2007july31.pdf

Alert: Virus Attacks via PDF files

Earlier this year Adobe discovered "flaws" and issued updates for Adobe Reader [and Acrobat] Versions 6, 7 and 8. This probably explains the greatly increased levels of incoming spam with PDF file attachments. Be very careful. Download the updates from Adobe's web site and install them. Also, delete without opening unsolicited PDF files arriving as [spam] email attachments.

Some Future Topics for the OVH Newsletter and Notes from your Editor

1. Your editor has received suggestions that more photos be included in the monthly OVH Newsletter dealing with a. public service events, b. homebrew projects, c. shack / operation position of the month, d. antenna systems, e. mobile stations, etc. Digital cameras are now ubiquitous; this can and will be done if suitable digital [or scannable] photos are provided along with brief information.
2. WiFi and future local area digital modes, including D-Star. A number of club members are real experts on these topics, and have lots of interesting, helpful and thought-provoking information, but don't like to write. Contact the editor.
3. Ham Radio related software. This is a very broad topic for which the editor has accumulated a sizeable backlog for future newsletters. Additional suggestions about favorites are still welcomed.
4. Remote control of radios / ham station by wired or wireless computer links. OVH had a program speaker on this rapidly developing area earlier this year. A few OVH members have ongoing projects relating to remote control - share your information.
5. Software Defined Radios. Several OVH members have constructed the low cost SoftRock SDR kits; many other hardware and kits are now available from other sources too. SDRs are coming!
6. Antenna and antenna system design and measurement. This is a very old topic, but one which has become much more complex with the development of new hardware and software tools such as vector network analyzers. The AMRAD table at the OVH Hamfest included a VNA demo. Share information about what you are doing.
7. Internet software related applications. At least one OVH member has implemented a ham radio web page which uses the Google Maps API [Application Programming Interface]. The Internet is here to stay and will be increasingly integrated into ham radio applications.
8. Constructive suggestions [or criticisms] for other topics or content are always welcomed.