Amateur RADIO Society News

Newsletter of The Amateur Radio Society of India (Member of IARU) English / Hindi Quarterly
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West Bengal HAM meet held on 11th OCT 2009

Oct 09 - Dec 2009

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Hammenings

Ham Radio Lecture & Demonstration at Sahyadri Science College, Shimoga.

As part of the mid-term workshop organized by PATHWAYS – Training and Placement Cell, Sahyadri College, a lecture and demonstration on "Amateur Radio – A Hobby & A Service" was organized on 19th December, 2009. Selected students from the first, second and final year of the B.Sc., B. Com and B.A courses attended the day long workshop. The

VU2MUD – explaining the techniques of Radio Communication prior to the ON AIR demonstration.

workshop was conducted by OM Madhukar, VU2MUD. The event was organized by the Director of Pathways, Dr. Basavaraj Patil, VU2BCP.

A 90 minute power point presentation dealing with the spirit of the hobby, uses as a hobby and utilities as a service to the nation, fundamental requirements to become an amateur radio operator, licensing procedures, Callsigns, country wise prefixes. Modes of communication, uses of Q-codes, Morse code & phonetics, operating etiquette, on the air Dos and Don'ts, equipment needed, frequencies and bands of operations. The students were also introduced to the scope of using OSCARs – satellites for Ham Radio communication.

OM Patil, VU2BCP gave the students a briefing on the antenna and its design. On the air demo was conducted on 7 MHz. About 7 stations were standing by on sked. The students were explained the procedures and abbreviations used in Ham Radio communications. A few students were also put "on-the-air" for "Modulation Test" and got reports and greetings for the Hams. The stations contacted were – VU3ITI, VU2HEG, VU2LR, VU2PLL, VU2DSI, VU2GUR (on CW), VU2TTP, VU2LX, VU2UR & VU2TS.

OM Patil is also preparing to conduct a Ham radio training session for the interested students and other citizens of Shimoga. We wish them all the best and lots of renewed activity from Shimoga.

World Wide DXPedition Trophy

The Strange Radio Team conducts the annual DXPedition Trophy. The award ceremony will be held at the International DX Convention 2010 in Paestum (Sa) on 17/18 April 2010. A total of 1825 votes were received for the 2009 activity. VK9DWX wins the 2009 Trophy with 612 votes, followed by K5D with 404 votes, and VK9GMW in the third place with 146 votes. The complete rankings can be found at http://www.wwdxt.net/

[Tnx: Francesco Giacoia, IZ7AUH/WZ7AUH]

AMATEUR RADIO ON INTERNATIONAL SPACE STATION

AS ON 31 DEC. 2009, the total number of ARISS-ISS-to-earth school contacts is 492. **Amateur Radio on the International Space Station (ARISS)** is a volunteer program which inspires students worldwide, to pursue careers in science, technology, engineering and math through amateur radio communications opportunities with the International Space Station (ISS) on-orbit crew. ISS call signs are: DPØISS, NA1SS, OR4ISS, RSØISS

CURRENTLY ACTIVE HAM SATELLITES

Ao51 (US)/ FM mode / Uplink 145.920/ Downlink 435.300,

CO66 (SEEDS-II)/ Nihan Univ Japan / Receive only - CW,Digitalker, SSTV & Packet on 437.485

ARISS (ISS)/ FM, Packet, SSTV / Uplink 437.800/ Downlink 145.800

SO50 (Saudi Sat) / FM / Uplink 145.850 / Downlink 436.795 / Access Tone 67 / Trigger 74 CTCSS,

SO67 (South Africa)/ FM/ Uplink 145.880 / Downlink 435.350 / Access Tone 233.60 CTCSS,

VO52 (India) / Inverted Linear Transponder / Uplink 435.220-435.280 / Downlink 145.930-145.870,

XW-1/HO68/Hope Oscar (China) / FM & Digital / Uplink 145.825 / Downlink 435.675 / Access Tone 67 CTCSS

AMATEUR RADIO ⩛ SOCIETY OF INDIA

The National association for Radio Amateurs
(Affiliated to the International Amateur Radio Union)
488, 14-Main, 3-Block, Koramangala, Bangalore 560034, INDIA
Email: arsimail@vsnl.net Phone: +91-80-25536853

YA/885/0310
6th March 2010

Hi Friends,

We have been discussing the matter of the Amateur radio Society news magazine in the governing council meetings for some time now.

It has been a matter of contradictions now !!!!!
On one hand, it is the one way we keep in physical touch with our members and on the other, it is increasingly becoming a financial burden on the society.

There have been discussions that we turn the magazine into a e-magazine, where it will be uploaded on our website in the PDF format and can be downloaded ONLY by the members.

It has also been pointed out to us, that we will go the Green way by not printing the magazine, on paper.

We, at the governing council, thought that this has to be put to the members to arrive at some consensus.

So, we request you to write to us C/o of the Secretary at the address given below or to e-mail us at secy.arsi@gmail.com, either which way you would prefer.

We will take all opinions to heart and will take a decision in the next GC meeting. We will communicate to you all once again on the decision taken.

yours sincerely
for The Amateur Radio Society of India

Rajaram K.N.
Hon. Secretary

wrote a PC
on 12.3.10.

Hon. Secretary :
Mr. Rajaram K.N., VU2KKZ
 # 27, Shrungar Shopping Centre, Mahatma Gandhi Road, Bangalore 560 001.
Tel : +91 80 2558 6006, 2509 1186, Fax : Office : +91 80 2559 4880, E-mail : digitronics.india@vsnl.com

President's message

Dear members,

The new set of office bearers has taken charge of their respective portfolios and has been discussing how we can make ARSI more effective.

Some of the tasks set out to make ARSI effective are :

1. Revamp the web page and make it interactive

2. Put together "grab kits" containing minimum equipment for use in emergency communications so an amateur can just pick up his radio and move with the kit in case of an emergency. One kit has been made and we are in the process of replicating it. Kits will be deployed in strategic locations all over India so that they are easily available.

3. Appoint regional coordinators in all areas where we do not have them (we are still looking for volunteers)

As you may be aware we achieved a breakthrough in our efforts with WPC and now have access to the 7.100 to 7.200 MHz section of the 40M band and also 10.100 to 10.150 MHz in the 30M band.

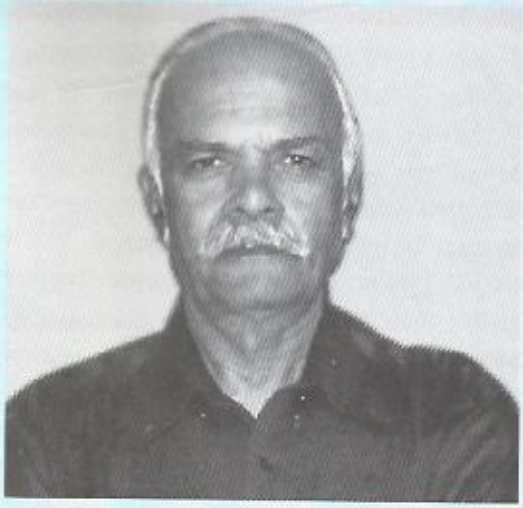
WPC has also assured us that several other issues that have plagued the amateur service like licensing will also receive attention. Some of these are online examinations, online renewal of licenses, etc.

ARSI is in close contact with WPC and the Ministry of Communications on a regular basis and we expect good progress in the future.

Gopal Madhavan, VU2GMN

From the Editor's desk

There is talk of Emergency Communications in times of disasters; like "Are we ready?". Some introspection shows that being active on the bands is most of the training. Active amateurs know about band conditions, antennas, teamwork, net handling, station maintenance, documentation and the rest of it.



While we certainly need to be prepared for emergencies, let's not forget, we got our licences so that we can enjoy this incredible hobby of ours to the fullest. If you are not on the bands for some reason,dust your radios and get right back on the air! There was a fairly good response to my request for articles and photos, and I thank all the contributors.

T S Ganesh, VU2TS

When You've Worked A FISTS member, You've Worked A Friend.

FISTS is a well established and recognized CW organization in the world of amateur radio. Founded in 1987 by Geo Longden, G3ZQS, it now has thousands of members growing world-wide daily. Subsequently, FISTS wants to further the use of CW on the amateur bands, to encourage newcomers to the CW mode and engender friendship within the membership.

There is only one requirement to join FISTS: *A love of Morse code and a concern for its perpetuation.*

FISTS members can be found on or near any frequency ending in .x58 (.058, .158, .258, etc)

The club has many activities and membership in FISTS is not required to participate, just a love of Morse! All FISTS activities are designed to promote camaraderie among members of the club and help hams hone and improve their Morse skills.

There are four "SPRINTS" (contests) each year - in February, May, July, and October and these events are a CW free-for-all. Please visit <http://www.fists.org/sprints.html> for the rules and scoring information.

The club sponsors two awards. The "Century Award", awarded to those that earn 100 points by working FISTS stations around the world, and the FISTS WAS award. Check sheets are available to keep track of your contacts for these awards and are available for downloading on the Awards Page. For more information, try <http://www.fists.org/awards.html>

Membership is open to all people interested in Morse code, irrespective of their speed and ability. An application form is not necessary to join, but it gives a more complete picture of the membership. Clubs with valid call signs may be assigned a FISTS number at no charge, provided there is at least one FISTS member in good standing in the club. These clubs are not legally affiliated with FISTS, nor does FISTS have anything to do with how the club is run, etc. It just means the club has a FISTS number and is worth three points toward awards.

Membership fee is $15 per year. To join, you need to send your name, call, and mailing address with your membership fee. Applications and requests for info can be sent to :

Mr J.S. Griffin MØCDL
35 Cottage Street
Kingswinford
West Midlands
DY6 7QE
Website <http://www.fists.co.uk>

West Bengal HAM meet held on 11th OCT 2009

A report By Ananda Bose, VU2AMB

The Indian Wave of Amateur Radio organized Third All Bengal HAM meet in Howrah district at Bally Girls High School on 11th Oct 2009. "The basic motto was to activate HAM radio culture in West Bengal" said Mr. Tapas Kr. Chakraborty, VU2TKC. He also said that the Indian Wave of Amateur Radio (VU2IWA) wants to increase the number of Hams in West Bengal by leaps and bounds. VU2IWA organises ASOC exam two times a year for all grades of HAM Radio licences. In August nearly sixty candidates gave HAM exam. Regular ASOC classes are taught by Shri Dipak Chakravorty, VU3OKT and Shri Nilendu Ghosh.

I talked about organising the coming projects of IWAR and RAGK and working with Government of West Bengal and Government of India in emergency and disaster relief emergency communication. Indian Wave of Amateur Radio has built up a Disaster Management team and provided wireless communication after 'Alia' (cyclone) struck the coastal area of West Bengal. VU2IWA team worked in South 24 Parganas District and other parts of West Bengal.

Technical discussion were also held during this one-day Ham Meet. Hams and SWLs came from several parts of West Bengal. The yearly activity report was discussed among all the members and Indian Wave of Amateur Radio (IWAR) Magazine was published and distributed.

see group photo on cover page

Mystery Antenna

by: W5GI - John

A multi-band wire antenna that performs exceptionally well even though it confounds antenna modeling software

The design of the Mystery antenna was inspired by an article written by James E. Taylor, W2OZH, in which he described a low profile collinear coaxial array. This antenna covers 80 to 6 meters with low feed point impedance and will work with most radios, with or without an antenna tuner. It is approximately 100 feet long, can handle the legal limit, and is easy and inexpensive to build. It's similar to a G5RV but a much better performer especially on 20 meters.

The W5GI Mystery antenna, erected at various heights and configurations, is currently being used by thousands of amateurs throughout the world. Feedback from users indicates that the antenna has met or exceeded all performance criteria. The "mystery" part of the antenna comes from the fact that it is difficult, if not impossible, to model and explain why the antenna works as well as it does. The antenna is especially well suited to hams who are unable to erect towers and rotating arrays. All that's needed is two vertical supports (trees work well) about 130 feet apart to permit installation of wire antennas at about 25 feet above ground.

The W5GI Multi-band Mystery Antenna is a fundamentally a collinear antenna comprising three half waves in-phase on 20 meters with a half-wave 20 meter line transformer. It may sound and look like a G5RV but it is a substantially different antenna on 20 meters. Louis Varney's antenna, although three half waves long, was an out-of-phase aerial. Mr. Varney had two specific reasons for selecting a 3 half waves on 20... he wanted a four-lobe radiation pattern, at least unity gain and a low feed point impedance. The Mystery antenna, on the other hand, presents a six-lobe pattern on 20 meters, gain broadside to the antenna, and also low feed point impedance to simplify matching the antenna to the rig. Additionally, the Mystery antenna is designed to work at least as well, on the other HF bands as a G5RV. In short, the Mystery antenna is a sky wire that incorporates the advantages of a 3 element collinear and the G5RV antenna.

In its standard configuration, a collinear antenna uses phase reversing stubs added at the ends of a center fed dipole. These stubs put the instantaneous RF current in the end elements in phase with that in the center element. You can make these phase reversing stubs from open wire line or coaxial cable. Normally, a shorted quarter-wave stub is used, but an open-ended half wave stub would also work. The problem is that the dangling stubs are unwieldy and or unsightly.

An article written by James E. Taylor, "COCOA-A Collinear Coaxial Array," published in 73 Amateur Radio, August 1989, describes a low profile collinear coaxial array. According to Taylor, when you apply a RF voltage to the center conductor at the open end, the stub causes a voltage phase lag of 180 degrees at the adjacent coax shield. This happens because the RF is delayed by one quarter-cycle as it passes from left to right, inside the coax to the shorted (opposite) end. There's another quarter-cycle delay as the wave passes back from right to left inside the coax and emerges on the shield at the open end. Add up the delays and you get a total time delay of one-half cycle, or 180 degrees. In essence, the coax section serves two purposes: it provides the necessary delay and provides part of the radiating element in a collinear array.

The first prototypes of the Mystery antenna used the Taylor formulas, which which called for cutting the wires to a quarter wave length using the formula 234/f(Mhz) and the coax, using the same formula, but applying an appropriate velocity factor. The first version of my antenna worked well on 20 meters but failed as a multi-band antenna.

The second antenna was built, constructed with the coax cut to the same length as the wire. This was done with the belief that perhaps the coax didn't behave like coax and therefore the velocity factor wasn't applicable. Surprisingly, the new antenna performed exceptionally well on 20 meters, had low SWR and performed just as well on the other HF bands and 6 meters as my G5RV reference antenna.

Step-by-step Construction

The W5GI Multi-band Mystery Antenna looks like a plain dipole (see figure1 and photo A below) and is very simple to build.

See text for details on connection of coax sections in center of antenna legs and on length of twin lead stub.

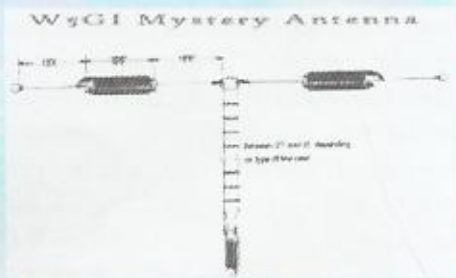


Figure 1 - Schematic drawing of the W5GI Multi-band Mystery Antenna.

Photo A - Full view of the W5GI multi-band Mystery Antenna with all sections shortened considerably for illustration purposes.

Builders of the Mystery antenna will need the following materials:

3 wish bone insulators about 70 feet of wire (14 gauge household electrical wire works well). Sufficient twin lead or open wire to make a half wave section on 20 meters. Window-type 18 gauge 300 ohm ribbon works best. The Wireman is an excellent source for antenna wire and 300 ohm line. 34 feet of RG8X mini-coax, an electrical connector, available from most electrical parts stores, to connect the twin lead and coax. Shrink tubing to cover the exposed coax joints. The antenna can be built in less than an hour when you have the above materials.

When you're ready to proceed, perform the following steps:

Cut the electrical wire into four equal lengths of 17 feet.

Cut the two lengths of coax to 16'6" each.

Cut a 20 meter half-wave section of twin lead. This piece needs to be adjusted by its velocity factor. If 300 ohm window type line is used with a VF of .91, the total length will be 30 ft. Alternatively, 450 ohm, solid 300 ohm or homemade open-wire line can be used provided the electrical length is on-half wave on 20 meters. Actual length will vary, typically between 27 and 35 ft., depending on type and velocity factor.

Trim two inches of braid from one end of both lengths of coax (Item A).

Trim one inch of braid and center insulator from the opposite end of both coax sections (Item B).

Build a 20-meter dipole without end insulators. Note: The next two steps 7 and 8 of the construction process involve connecting only the "inner" end section of the coax section to one end of the dipole;

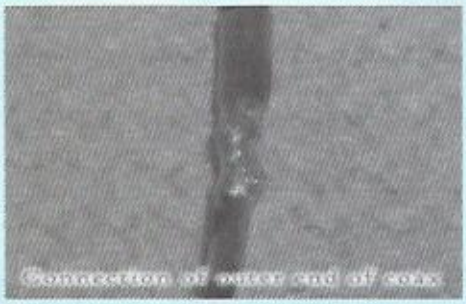


Photo C - Connection of outer end of coax section (further from center). Note that both center conductor and shield are connected to the wire.

the shield is not connected to anything here. At the other end of the coax section both the coax shield and second wire section are connected to the coax center conductor.

Connect one end of the dipole to the center conductor of the coax (Item A) and cover with shrink tubing as shown in photo B below.

Connect the opposite end of the coax (Item B) to braid AND quarter wave wire section, cover with shrink tubing, and connect to end insulator as shown in Photo C below.

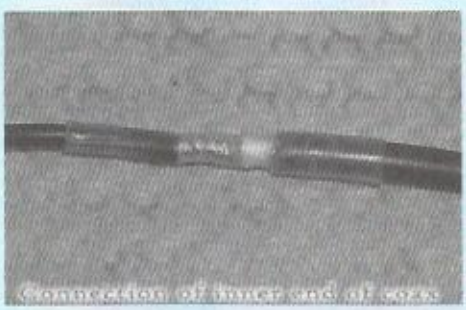


Photo B - Connection of inner end of coax section (closer to center). Note that only the center conductor is connected to the wire.

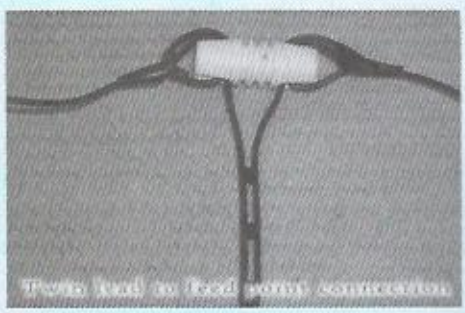


Photo D - Connection of twin lead to inner antenna wires at center of antenna.

Photo E - Connection of twin lead to coax. Short length of coax section is for illustration purposes only. All connections should be weatherproofed with shrink-tubing, CoaxSeal, or similar.

Install the twin lead through the holes of the center insulator (you may have to enlarge the holes) and solder to antenna wire as shown in photo D below.

Connect the opposite side of the twin lead to the coax as shown in photo E below. Almost any type of connection will work provided the connection is stable and sealed properly.

Install the antenna with the center conductor at least 25 feet high. Mine is installed in a horizontal plane; however, others have installed the 'GI antenna as an inverted-vee and are getting excellent results.

Dimensions for the mono-band antenna:

The above dimensions are for a dipole hung in the horizontal plane. They were calculated by using the formula 234/freq (MHz) plus additional length for attaching to connectors/insulators. If the antenna is to be installed in an Inverted V, increase all lengths by 5%. Any of the above antennas can easily be used as multi band antennas by eliminating the 4:1 balun and using open wire/twin lead directly to an antenna tuner.

contd. on page 11

Short Wave Listeners (SWLs) the endangered species

OM T.K. Viswanathan

SWLs are the backbone of a National Society. In the erstwhile USSR, OK, G, VK, YO, OH, 4X4 and other countries, the National Society, handling the QSL bureaux, were allotting the unique SWL callsigns,.This facilitated the easy handling of their outgoing and incoming QSL cards. In USSR, the various clubs had a chief, who was invariably a "Master of Radio Sports", under whose guidance the SWLs were trained, even permitted to operate the club transmitter. The reports these SWLs sent, got return QSLs from DX countries, and this volume supported them for an early issue of amateur radio licence. Unfortunately in India, the breed of SWLs, is fast becoming extinct, and they are the endangered species. The practice of getting an amateur radio licence of any grade, without any practical experience as an SWL, is shown many times on the band, by the many wrong procedures of making calls etc.

The SWL calls are generally formed with the prefix of the area of the country followed by a three or four digit number. For example OH2-3344, OK2-456, 4X4-384; VK6-717; G-4567, etc.,. Did you mark the SWL calls issued by Wireless Planning and Coordination Wing in India ? First, they issued calls like those of regular amateurs with VU2 or VU3 followed by three alphabets. By the time the WPC learnt about the mistake, it was too late. They could not withdraw and issue new SWL calls. Now, they are issuing calls like "SWL-137" which does not prefix the VU at all. Hi.

Now, a few words about the greatest SWL that VU has ever produced. That is **"Vis"** OM T.K.Viswanathan, of Tellicherry, Kerala. **OM TK Viswanathan** got his SWL registration number **VU-0020** from the Amateur Radio Society of India, as was the practice those days, in the Sixties. His living predecessors are OM "Arasu" VU-0016 and OM Zal VU-0006.

These were the three SWLs who gave the **ARSI QSL buro** a tough time. One or the other of the three SWLs used to send their printed report cards to exotic countries round the world. The QSL manager used to comment (happily) that only for you three, I have to send air-mail envelopes to rare countries. The out-going and in-coming QSL services were free to all the types of membership of **ARSI,** which was maximum at Rs 15/- p.a. That included the printed bi-monthly publication too. Those were the good old days. Now, the SWL category membership in ARSI, is NOT existing at all.

The SWL started as a "WOM" in the Air Force, and was trained well in the job of wireless operator by none other than the great DXer ham, Gopal VU2GO (SK), at their Bangalore Training Centre. Thus, Viswanathan has seen many postings in the Civilian and Forward Areas of the country. He did send reports to BC stations as a BC listener, occasionally. He has some interesting catches confirmed too. He was very much associated with OM Subi VU2SU (SK) the great CW ham, which Air Force ever produced. Air Force is still the leading branch of the services, who do encourage amateur radio. The least is the Navy and in between, our friends from the Army are also active.

His SWL career goes in two parts. The first one is from 1964 to 1971. During this period, total cards collected was 2000 plus, from 127 countries. The awards achieved were: **R-100-O** (verified 100 Russian Oblasts), **CCCP-50** from USSR; **HAVKCA** (Heard All VK Call Areas) from Australia; **VPX** (Verified Prefixes Award) from CQ magazine of USA; **CPR**(Propagation Research Contest) from IARC-Geneva; **AJD** (All Japanese Districts) from Japan; **YO-DX-C** (Honorary membership in YO DX Club) and **YO-AM** (YO Meridian Award) from Romania.

The second part from 1998 till date, is his post retirement phase of SWL work. Vis took great interest in CW work, and had thousands of loggings. He has the highest percentage of QSL returns via the **ARSI QSL buro.** He had been extensively using the QSL service of QSL Managers like VU2VIT and VU2DPD,who helped him. He sent over **25000** cards to **310** countries. More than **80 %** of the 10000 plus, QSLs he received have the remarks **"First and only VU report".** Many of his QSLs sent via the buro, get replied direct by Air-mail to his home QTH. The DX who receives his report are very much impressed to do that. He has received cards from **284** countries in this phase.All this with no fancy communications receiver, but a National Panasonic domestic set with an external BFO, will shock most of the amateurs. He has seen many receivers like AR88, CR 88, BC 312, 342, 348, RA-17 RA-17LB, and many others. But, the morning QTH did not permit them keeping their own personal communications receiver. Hi. Inspite of all the odds, when he visited VU-0016 at Ludhiana in 1965, Vis was very happy to log hundreds of CW stations from the BC 348 Arasu was using, from 1.8 to 14 MHz.

He used to draw four columns and start logging four simultaneous QSOs on the same freq, as BC 348 did not have any filters of the modern type, except the xtal filter. That was the expertise, which any modern SWL and amateur needs to learn.

THE STATISTICS OF HIS CONFIRMED QSLS:

No. of prefixes confirmed:	1550
No. of Countries Confirmed:	284
No. of Islands of IOTA (Islands on the Air) confirmed	342
No. of US States confirmed:	50
No. of US counties confirmed:	435
No. of DoK (German Districts) of Germany confirmed:	505
No. of RDAs(Russian Districts) of Russia confirmed:	294
No. of IPA(International Police Association) hams confirmed:	35
No. JA prefectures confirmed:	47
No. of Light Houses confirmed:	49
No. Maritime Mobile Stations confirmed:	25
No. FIRAC (Amateur Radio Ops in Railway Service) stations confirmed:	21
No. of YLs confirmed:	51

THE AWARDS RECEIVED IN THIS PHASE ARE:

1. **IOTA**(Islands on the Air) Basic from RSGB-First ever award issued to any VU.
2. **GSQA** (German Squares Award) from Germany first for India and South Asia.
3. **DDFM** (Different Districts of France) from France
4. **ARLHS** (Amateur Radio Light House Society) DX-LH from USA
5. Sherlock Homes Award **SHA** 200 from Germany
6. Russian Antarctic Bases Award, **RABA** from Russia
7. **BAFARA** from Belgium
8. **WFRC**(Worked Frankford Radio Club Members Award) from USA
9. **R-150-C** (150 countries Award) from Russia
10. Maritime Mobile Award- **MMA** from Poland.
11. **SSA-75** from Sweden
12. **EWWA-HF-200-CW** (200 countries in HF Award) from France.
13. **KDN-50** (Korean Districts Award) from South Korea
14. Washington **Totem** Award from USA
15. **WASA-HF-1000-CW** (Worked All Squares Award) from Japan
16. Japan Century Gun -**JCG**-award from Japan
17. **CWJF**(CW from Juiz de for a) from Brazil
18. Japanese IOTA Island Award from japan
19. **RDA-100** and **RDA-250** Russian Districts Award from Russia
20. **WSPHCM** from Poland
21. **DPXF** Class I (various Prefixes of France) from France
22. **ISWL States Award**:Bronze 30 States, Silver 40 States, Gold 50 States.
23. **ISWL African DX Diploma** Bronze 25 Countries, Silver 35 Countries, Gold 45 Countries.
24. **ISWL Pacific Ocean award** Bronze 30 Countries, Silver 45 Countries, Gold 60 Countries..
25. **ISWL European Award:** Bronze 40 Countries, Silver 50 Countries, Gold 60 Countries.

.26. **ISWL The Americas Award:** Bronze 30 Countries, Silver 40 Countries, Gold 50 Countries.

27. **ISWL Commonwealth Award:** Bronze 30 Countries, Silver 45 Countries, Gold 60 Countries.
28. **ISWL Century Club award:** 250 Countires
29. **ISWL Continental Award**
30. **WRI**- Worked Republic of India award of INDIA.
31. **Contest awards:**
    Holyland Contest 2001
    IOTA Contest 2003
    WAE contest 2003

Heavy-handed CW operators

Ahem! It has been calculated that a Morse operator carries a daily workload which is quite remarkable! Here's how it's worked out by VK4BCM-Bevan:

A Morse key requires 4 ounces of pressure to operate (approx). Each letter necessitates approx 4 upward plus 4 downward movements, 8x4 oz = 32 oz. On average there are approx 6 letters to each word, 6x32 (2lb) = 192oz = 12 lb. Each minute a good operator sends at 27 wpm = 27x12 lb = 324 lb. Each hour = 60 x 324 lb = 19,440 lb. For a six hour day = 6x 19,440 lb = 116,640 lb. Dividing 116,640 by 2,240 (lbs in a ton) = more than 52 tons each day.

A great accomplishment with one hand - whilst in a sitting position!

More interesting is the response to this by WB5JWI - Les: Of course we colonialist in the US don't use the Imperial Ton (or Tonne, as my Brit friends spell the word) but the "short" ton of 2,000 pounds even. So we American CW ops do "MORE" work by doing 58.32 lbs each day, HI HI.

Ham Humour

You might be a ham if.....

1. Your wife said "lets go see aunt anna" and you thought she said antenna!

2. Your wife said "could you cut the grass?" and you thought she said pound the brass!

3. Your wife said "we've been invited to breakfast" and you thought she said ham fest!

4. Your wife said "something is wrong with the check book" and you thought she said log book!

5. Your wife said "is my seam straight?" and you thought she said, "is my beam straight?"

You might be hard of hearing too!!

Simplex VHF Emergency Communication Test by Delhihams

[A report by Rajesh, VU2OEC, ARSI Regional Representative]

Six days before the Fifth Anniversary of the Indian Ocean Tsunami - 20th December 2009 – the D-Day for the first ever Simplex VHF Emergency Communication Test for the Delhi-NCR [National Capital Region – which includes Delhi-Gurgaon-NOIDA-Faridabad] – covering an area of 1800 Sq. Kms, twenty seven hams were ready for the full-fledged Simplex VHF Emergency Communication Test on Frequency 145.200 MHz. The test was part of the activities of the Delhihams Yahoogroup – owned and moderated by VU2MUE (Sandeep) and VU3ORN (Ray). The best part of the test was that the participants would be operating in their respective shacks – without need for special permission.

At 20:50 hrs, VU2XLZ (Frank), the alternate Net Control, after the quick roll call handed over the control to VU2OB (Sree) to anchor the show – his QTH strategically being the approximate center of the region.

By 21:00 hrs, the atmosphere of the Delhi-NCR was totally charged up with VHF radio signals, every ham waiting for their turn. During the half-an-hour exercise, the excitement and passion for the hobby – Amateur Radio – was visible as hams rolled in to the call of VU2OB (Sree). To save the time, as agreed earlier, reports were not to be exchanged during the test to accommodate everyone. Almost all the hams noted the reports at their end as per the format devised by VU2UKR (Sunil).

VU2MUE (Sandeep), Scientist in Vigyan Prasar, being temporarily in Mussorie [*for an 'Experience Sharing Programme between the Scientists and Administrators' at Centre for Disaster Management (CDM), Lal Bahadur Shashtri National Academy of Administration (LBSNAA)*] during the ongoing test added more flavour to the game. VU2YK (Rahul) could do a QSO with him – a distance of more than 250 Kms. The test was over by 21:23 hrs with more than 25 check-ins. Hams out of their habit were eager to exchange report and frequent quick QSOs went on till 21:30 hrs

This first ever Simplex VHF Emergency Communication Test in the NCR was extremely successful due to astounding response from Delhihams. The conclusion, analysis and other versions emerged out to be the very encouraging.

The best outcome of the test that Delhi-NCR hams now know that the QTH of VU2XLZ, VU2OB, VU2KD, VU2EXX (for Delhi region) besides QTH of VU3CAV, VU2YK, VU2ORO (for whole of NCR) being the best locations during any probable disaster/emergency communication.

Just after the test, VU2GTI (Gaurav) [**ARSI NCR Emergency Communication Co-ordinator**] volunteered to be the ARSI Emergency Communication Coordinator for Delhi-NCR.

The other hams participating in the event were VU2BDX, VU2ATN, VU2ANM, VU2RAK, VU2XD, VU2YEP, VU2YAP, VU3FUN, VU2GTI, VU3CAV, VU2UKR, VU3ORN, VU2XD, VU2LAS, VU2DED, VU2VTH, VU2LRL, VU3DJQ, VU3BSE.

Hope other ham groups in the country will come up with such exercises for their respective regions. Let every possible city have its own **Ham Emergency Communication Response Team a.k.a. HECRT**.

OFFICE BEARERS

Delhi VHF Antenna Workshop

On a chilly winter morning of 10th January 2010, some forty amateurs accompanied by XYLs and harmonics detached themselves from the cozy comforts of home QTH to be part of the annual Delhi NCR hams get-together.

The 2010 Annual VHF Antenna Workshop combined with a Picnic was arranged at The National Camping-cum-Training Centre of The Bharat Scouts & Guides, Northern Regional Headquarters, Delhi on the 10th January, thanks to the Director of BSG Mrs. P Saroja who had kindly permitted us to utilize the BSG premises for this activity.

Thanks also to the staff of BSG, YL VU2HVC (Machama-Assistant Director, BSG), YL VU2BSG (Geeta), YL VU3OBB (Kumud) and others put forth full support with all facilities they could offer – Huge Pandal, battery of chairs, tables, carpet – and a little bonfire acclaimed by everyone.

VU2GTI (Gaurav) and VU3CAV (Rajani) had already installed a Yagi Antenna for the BSG Ham Radio Club Station located at Gatpuri, Ballabhgarh, Haryana and assessed BSG's potential to disseminate information on Amateur Radio. VU2MB (Bhanu) had also participated in the activity to install a ground plane at BSG Delhi complex near NOIDA.

VU2ATN (Atanu) – an ardent homebrewer with vast experience proposed a design from QST magazine and drew the sketch of the yagi and its intricacies, material to be used etc. VU2RAK (Rakesh) – an old timer – also sent the sequence images of his recently assembled commercial VHF Yagi Antenna.

By 1130 hrs (IST), the BSG Complex was beaming with heartening eyeball QSOs, hugs full of radio warmth. Instantly, harmonics befriended each other already set for the joyous day ahead with loads of toy walkie-talkies, football, flying disc and above all VU2MUEs Telescope to watch terrestrial objects.

The presence of the big guns - namely, VU2ATN, VU2VP (Vice President – Amateur Radio Society of India), VU2DS, VU2YK, VU2XD and VU2PPP with XYL VU2RJG, all with decades of experience, rewound the history of hams in India.

The introduction session on "use of 2-meters" followed by demos by VU3AKW (Ashok) – intended for novice hams with many daily needed amateur built accessories like night lamp, wattmeter and many more to enthuse the interest in homebrewing. VU2ATN (Atanu) also brought his homebrew vintage VHF handheld, popularly known as 'Desi Katta', to everyone's astonishment still functional/transmitting well, fusioned with another homebrew SWR meter and the prototype VHF Yagi Antenna. VU2ASB (Ashok) too had brought his BITX homebrew 20 mtr Transceiver and homebrew Power Supply – with professional look.

VU2AKW - demonstrating for novices

Workshop in progress

VU2MUE (Sandeep – Scientist in Vigyan Prasar) and also ARSI Regional Representative for Delhi, had spread his paraphernalia of equipments with a demo of APRS followed by many queries from the Novice hams and other visitors.

As the assembly line work began for the VHF Yagi Antenna Workshop, it was difficult to hold oneself away from it. Suddenly, ham radio became 'hammer radio'. VU2VTH and VU3CAV worked in top gear to drill holes in booms, cutting of beams with precision, thanks to the helping hands of VU2EXX (Pradeep), VU2POH (YL Pooja – the youngest student ham in the group), VU3AXS (YL Anu), VU3DJQ (Raman), VU3AKW (Ashok), VU2LTR (Pawan – the Novice), VU2TPR (Teertha), VU2LAS (Satish), VU2XLZ (Frank) and many others.

The target of making 17 VHF Yagi Antennas got accomplished and distributed to the participants within one-and-a-half hours as scheduled, for a meager impedance of Rs.250/- per antenna.

Finally, VU2YK (Rahul) amazed everyone by his skill at using a Slingshot to hook up HF antenna wires to tall trees.

The other hams who attended and actively participated were VU2KD, VU2DED, VU2MGS, VU2RTV, VU2LRL, VU3FUN, VU3CUI, VU3BPA, SWL-Puniet and his mother SWL-YL Mohanjeet – both waiting for their tickets.

All amateur radio operators present on the venue were provided with complimentary "Amateur Radio One World One Language" car stickers by VU3CAV and VU2GTI. [These stickers can be purchased for clubs and groups by visiting http://www.vu2.in website for ham radio operators in VU land.]

As reported by
Rajesh Chandwani, VU2OEC
ARSI Regional Representative.

Group photo taken on the occassion of Delhi VHF Antenna Workshop - photo by VU2UKR

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Mystery Antena

BAND	*Inside wire*	*Coax*	*Outside wire*	*Overall length*
10.1	*23' 10"*	*23' 4"*	*23' 6"*	*141 ft 4 inches*
14.18	*17' 2"*	*16' 8"*	*16' 10"*	*101 ft 4 inches*
18.13	*13' 7"*	*13' 1"*	*13' 3"*	*79 ft 10 inches*
21.25	*11' 9"*	*11' 3"*	*11' 5"*	*68 ft 10 inches*
24.9	*10' 1"*	*9' 7"*	*9' 9"*	*58 ft 10 inches*
28.5	*8' 11"*	*8' 5"*	*9' 7"*	*51 ft 10 inches*
50.125	*7' 10 "*	*7' 4"*	*7' 6"*	*45 ft 4 inches*

On-the-air Performance

On 20 meters, you should expect 3-6 dB gain over a dipole and a 6-lobe radiation pattern with an elongated figure 8 pattern perpendicular to the plane of the antenna. This is typical of a 3 element collinear array. For a simple explanation of collinear arrays read "Troubleshooting Antennas and Feed lines" by Ralph Tyrrell, W1TF. On all other bands the antenna performs like a G5RV, which is really a random length dipole on all but 20 meters. M. Walter Maxwell, in "Reflections II, Transmission Lines and Antennas", aptly describes this phenomenon. Several users report it is possible to use the antenna on 160 meters but you will need to connect the twin lead together at the point where it connects to the coax. On 160, the antenna performs like a Marconi. Those who have used the antenna on 160 say the "GI Mystery" antenna is a quieter receiving aerial compared to other 160-meter antennas.

As for the theory of operation, it remains a mystery. At least three "experts" tried computer modeling the antenna. All three rendered completely different findings.

You will enjoy building a W5GI Multi-band Mystery Antenna! Many hams has done so and find it to have been a fun project and an excellent performer.

Pramod VU2TTP introduced me to this Mystery - and soon with help from Raja VU2KSJ, I built my own and fired it up

on 80 meters, replacing the dipole I was using earlier. All the reports I recieved were a couple of S-points better than

earlier. With the help of an antenna tuner, I am am able to use this 20m antenna on all bands 80-10 including WARC

and 30m with excellent results. Conditions haven't been good, but I am able to work stations almost as if I was on my 4 el. yagi!

-Ed

DXCC COUNTRY/ ENTITY REPORT

According to the AR-Cluster Network for the week of Sunday, 24th-January, through Sunday, 31st-January there were 209 countries active. Countries available:

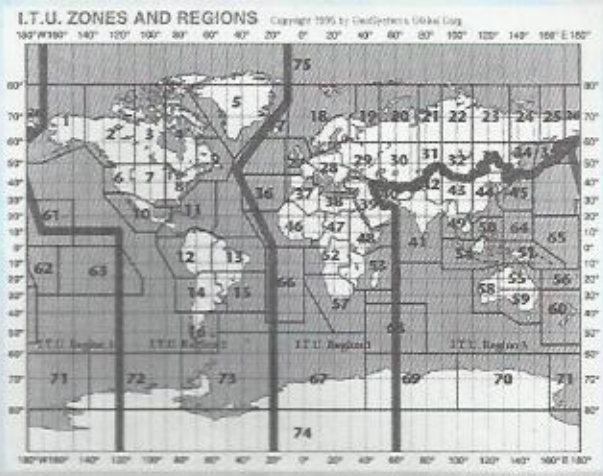
3A, 3B8, 3D2, 3DA, 3V, 3W, 4J, 4L,4S, 4X, 5B, 5H, 5N, 5R, 5V, 5X, 5Z, 6W, 6Y, 7Q, 7X, 8P, 8Q, 9A, 9G, 9H,9J, 9K, 9M2, 9M6, 9V, 9Y, A4, A6, A7, A9, BV, BY, C3, C6, CE, CE0Y, CE9,CM, CN, CP, CT, CT3, CU, CX, D2, DL, DU, E5/s, E7, EA, EA6, EA8, EA9, EI,EK, EL, EP, ER, ES, ET, EU, EX, EY, EZ, F, FG, FH, FK, FM, FO, FO/a, FR,FY, G, GD, GI, GJ, GM, GU, GW, H4, HA, HB, HB0, HC, HH, HI, HK, HL, HP,HR, HS, HZ, I,IS, J2, J6, J7, J8, JA, JD/m, JD/o, JT, JY, K, KG4, Kh2, KH6, KL, KP2, KP4, LA, LU, LX, LY, LZ, OA, OD, OE, OH, OH0, OK, OM, ON, OX, OY, OZ, P2, P4, PA, PJ2, PJ7, PY, PY0F, PZ, R1FJ, S2, S5, SM, SP, ST, SU, SV, SV/a, SV5, SV9, T32, T7, TA, TF, TG, TI, TK, TL, TR, TT, UA, Ua2, UA9, UK, UN, UR, V2, V3, V4, V5, V8, VE, VK, VP2M, VP2V, VP6, VP8, VP8/h, VP9, VQ9, VR, VU, XE, XU, XW, YA, YB, YI, YJ, YK, YL, YN, YO, YS, YU, YV, Z2, Z3, ZA, ZB, ZC4, ZD7, ZD8, ZF, ZL, ZP, ZS

PLEASE NOTE: The report could contain "Pirate/SLIM" operations or more likely a "BUSTED CALLSIGN". As always, you never know - "Work First Worry Later" (WFWL). Tnx: Ohio Penn DX Bulletin.

1229 km with 1 mW on 500 kHz

Roger, G3XBM, has been trying to break the 1000 km barrier with his 500 kHz station and on Wednesday Jan.20, he succeeded. On the GQRP list he writes: "This evening, my target of exceeding 1000kms on 500kHz has been exceeded by a GREAT margin. Lubos OK2BVG at JN88ks managed to hear my 1 mW ERP WSPR signal at a distance of 1229 km and this is by far my best dx and a new country on the band. Lubos even moved to his quieter country home in order to hear my weak signal.

"Afghanistan, T61AA - VK1UN, Ross, plans to get on 2M and 6M EME (aka "moonbounce") from Afghanistan, grid MM57. He notes the old YA prefix is no longer in use, so T6 is now the official prefix for the country. He has the callsign T61AA. He was on 20 SSB for as much as an hour a day recently from his QTH in Faizabad. Ross will be there for two years and is equipped with a Tokyo Hi-Power amp for HF and 6 and a new Acom for HF and 6, a 2x8 element on two but he plans to add to it when the weather cooperates. (The Daily DX No. 038)



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