HAM RADIO NEWS

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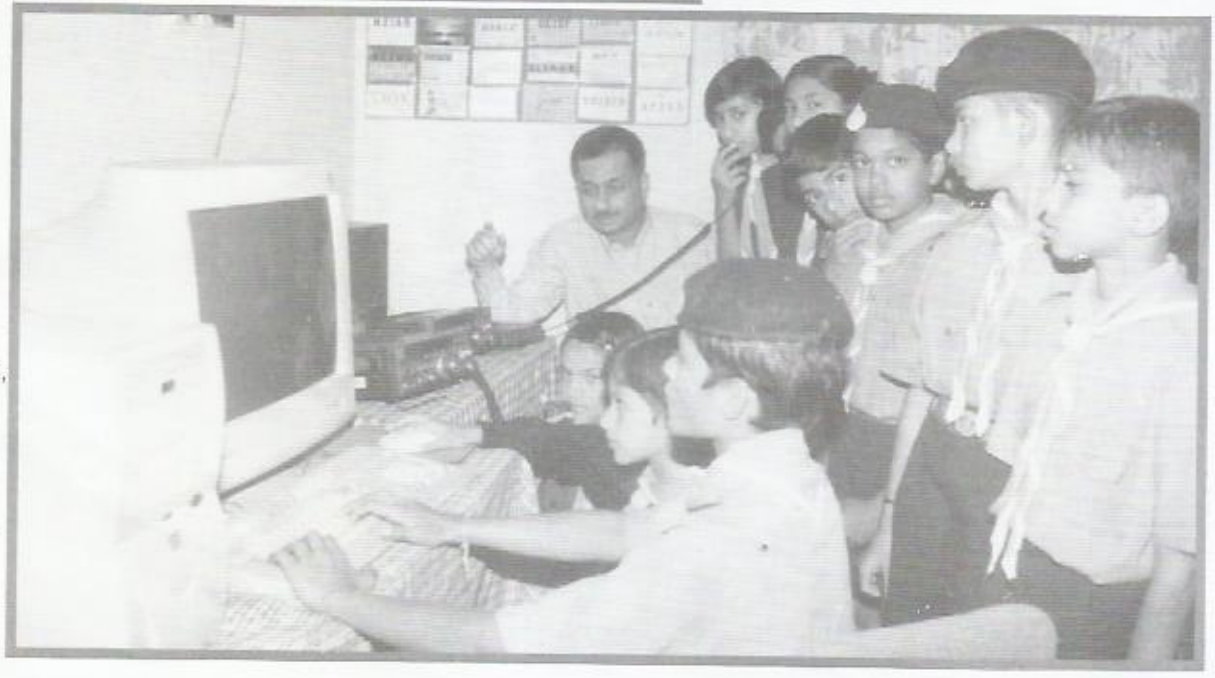
"AMATEUR RADIO - A NATIONAL RESOURCE"

HAMFEST 2003, GANDHINAGAR, GUJARAT

Unity Is The Motto

VU2TX, OM SAMY
in his shack. He is featured
in the "Ragchewing" column
in this issue.

Lions Clubs International
Ham Radio Station
VU2LCI



JOTA AT
VU3LLE,
Little Lilly's
English Highschool,
Bangalore

FROM THE OUTGOING PRESIDENT'S DESK.

This piece is being written a few days before the AGM of the Society, and is therefore the last one penned by me.

First, I thank each and everyone of you for the affection and trust you placed on me during my tenure as President. I wish the new committee the very best and I am sure they will do their utmost for this wonderful hobby and for ARSI.

During the last couple of years it as been observed that most of the associate and student members joining the Society are those who had cleared the examination and were awaiting their licence from WPC. They joined mainly to secure assistance in this matter. Thereafter, they forgot that they were members of ARSI. There have been nearly 50 such cases during 2001-2003.

I am not in a position to make any suggestion for improving this situation. One way would be to enroll such members for three years or more. Abolishing this category will hurt genuine SWLs. The new Governing Council may like to give a thought to this problem.

According to the latest count, 9 countries in Europe (including U.K.), at least one in Africa, Australia and New Zealand have already abolished or are in the process of abolishing Morse Code from their syllabus. USA and Canada are reportedly undertaking an opinion poll. Since our WPC wing has not yet expressed any opinion in this matter (they have not yet issued the Notification for the reduction of speed for Grade I exam), it is suggested that Indian amateurs should write to the Secretary of Dept. of Telecommunications or Wireless Adviser, requesting to abolish mandatory requirement of Morse Code for operations below 30 Mhz. This will serve as an opinion poll for the WPC Wing.

On a personal note, since the new Governing Council is taking over shortly, it will decide who is to liaise with the WPC Wing in matters concerning licensing problems of members. Accordingly, members and others are requested not to send their papers for new licenses, renewals, change of QTH etc to me. They may contact the President or the Secretary for advice.

Wishing one and all, HAPPY HAMMING.

Sahruddin

PRESIDENT'S REPORT

The new committee has taken charge of ARSI and will now operate from Bangalore. We have not even inherited a chair let alone a Desk. So it is more appropriate to call this column as the President's report.

At the outset, the new compete wishes to thank all members, for showing confidence in us and electing us. We on our part assure all of you that we will do our best to run ARSI to the best of our ability

It is said that a new broom sweeps better but we do not want to sweep all the past, particularly not under the carpet. The many good things painstakingly developed by the past committees has to be preserved and developed.

Many members at the AGM desired that efforts should be made to increase our membership. At present we have about 750 members, (including defaulting members). We hope to bring back the defaulting members into the active list. The AGM has agreed to forgo the arrears. That will be an incentive for all old members to rejoin the ARSI. This information has to be to be given to the defaulting members by word of mouth as they do not get the HRN. We request all members to help in this.

During our tenure we plan to have many membership drives and hope to increase our membership to more than 1000.

HRN has been published regularly thanks to the fine efforts by our able Editor Ms Sarla VU2SWS. She has kindly agreed to continue as Editor.

We have many projects to improve the working of our organization. As and when we are in a position to take it up we will keep you all informed through HRN or postal circulars as required.

Finally the Governing Council would like to have suggestions from all members to improve the working of ARSI. You can contact any one of us by Post, Phone, E mail ,Etc.

Effort by all of us would yield some results!!!

73s

Chandru VU2RCR

CQ ALL VU HAMS

Greetings of the Season! I am very happy that a new ARSI team has been elected and I wish Chandru and his team every success!! Even though I have been elected as Vice President, my heart is totally dedicated to this editorship. But I am also sad that my very good friend VU2SDN Sahr, has retired. It was his immense confidence in me that made me undertake this job and he was a pillar of support. But on the brighter side, I hope to meet him more on air!!!!

The Hamfest at Gandhinagar was a job well done and I am sure that all participants and organizers had a great time. The Gandhi sketch on the cover is R.K.Laxman's, though the handy in his hand was entirely my idea!! After all we should smile and laugh at everything, and I hope this depiction of Gandhi made you smile.

Before sighning off, I again request all of you to send me articles, tidbits, information for the magazine. Please don't forget, the HRN is your magazine.

Wishing all of you a very merry Christmas and a Happy New Year,

Sarla VU2SWS

OFFICE BEARERS

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The current address of the society is: ARSI, c/o R.Ramachandra , VU2RCR, 488, 14th Main, 3rd block, Koramangala, Bangalore 560034.

Join the ARSI newsgroup by sending an email to ARSI-subscribe@yahoogroups.com or visit the group for old announcements at http://groups.yahoo.com/group/ARSI/

W.P.C Address : The Assistant Wireless Adviser to The Government of India, Ministry of Communication & Information Technology, Department of Telecommunications, WPC Wing, Amateur Radio Section (Room # 619), 6-Floor, North Core, Sanchar Bhawan, NEW DELHI-1 1 0 0 0 1. Ph: 011-23355441, 011-23036951 Fax: 011-2371611

PAYMENT INSTRUCTIONS

Till the Newh Governing Council completes the formalities of shifting the ARSI Office to its new premises, members should continue the old procedure of payment. Payment should be made by a local cheque or cash at any branch of **ICICI Bank**(not ATM), quoting the name of the Society in full(Amateur Radio Society of India) to **account no.629701181104.** The counterfoil, either the original or a photocopy should be sent to Mr.Sahruddin, 274,Paryatan vihar, B-4, Vasundhara Enclave, N.Delhi 110096. This is absolutely necessary, till further notice. **Where there is no branch of ICICI bank,** the payment can be made through a demand draft, obtained from any bank, drawn in favour of "Amateur Radio Society of India"(not ARSI) and payable at Delhi/N.Delhi.

Payment of Subscription:

IT WAS DECIDED AT THE ANNUAL GENERAL BODY MEETING AT THE GANDHINAGAR HAMFEST THAT AS A ONETIME MEASURE, ALL ARREARS WILL BE WRITTEN OFF AND MEMBERS COULD PAY THEIR CURRENT DUES TO CONTINUE THEIR MEMBERSHIP BEFORE 31ST MARCH 2004. Several associate members who have since received their call signs are now eligible for corporate membership. They are now required to pay Rs.150 as annual subscription instead of Rs.75. As licenced amateurs they are no longer eligible for associate membership.

UNIDENTIFIED PAYMENTS

Date	Amount	Date	Amount	Date	Amount
12.11.02	125	12.03.03	225	13.05.03	150
17.06.03	310	08.07.03	6	10.07.03	85
12.07.03	470	21.07.03	120	25.07.03	70
02.08.03	75	27.08.03	310	10.09.03	300
15.09.03	255*	19.09.03	200		

(*DD No.438779 deposited in bank at Delhi. The identity of payer not recorded).

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Membership Category	Admission Fees(Rs)	Annual Fees(Rs)
Patron	15000	Nil
Life* (For existing Corporate member)	2250	Nil
Life *	2450	Nil
Corporate (Individual with Valid Amateur Licence)	50	150
Corporate (Club, Society or Institution with Licence)	100	200
Associate (Individual, no Licence required)	50	75
Associate (Club, Society or Institution without Licence)	100	200
Student Member	20	30

*Senior citizens ,i.e, those above 65 yrs, can become life members by paying Rs.1000 only, instead of 2250(1200/-for NEW senior non members instead of 2450/)-YLs will be entitled to this reduced rate after they reach 60 yrs.

FEEDBACK

Dear Madam,
Greetings from Bangalore. Read the HRN July-Sept '03 issue. Congratulations for the excellent magazine.
Hope to see more homebrewing articles and local news.
Thanks and best regards
Ramakrishnan
SWL (hoping to get the results soon from the monitoring centre)

Dear HRN Editor,
We start a new website for Indian hams, www.hamradioindia.org. Resource features Indian amateur news, photos, circuits, articles, downloads, message boards and discussion forums. Please check it and kindly give a news about the same in the next issue of ARSI newsletter.
73's VU3CNS

Dear Friends,
The Wireless Monitoring Station in Visakhapatnam has moved again very recently. Its new address is:
39-27-41, Madhavadhara
VUDA Colony
Visakhapatnam 530018
Andhra Pradesh
Tel. 0891-2539365
Telefax: 0891-2542402
The Officer in Charge is Mr. T. Srinivasa Rao
EchoLink VHF Repeater has been installed recently at National Institute of Amateur Radio (NIAR) and local hams in Hyderabad are now contacting Amateur stations all over the world via VHF with 59+ reports. The frequency is 144.720 MHz simplex and this facility is available round the clock.
It is the 2nd such repeater from India.
My investigations has confirmed that the Standard Time and Frequency transmissions by Station ATA, National Physical Laboratory, New Delhi has ceased its SW operations about 3 years back. They used to operate round the clock on 5, 10 and 15 Mhz with 2x8 kw transmitters from Greater Kailash, Delhi.
There were voice announcements in English every 15 minutes with station identification and IST. Ionospheric data was given every hour. Since 1988, NPL has been transmitting Standard Time and Frequency Signal via INSAT satellite. It is also available via telephone now. They used to issue QSL confirmations for their SW broadcasts and I have 2 in my collection. More details about their present activities is available from http://nplindia.org/npl/Indian%20Standard%20Time-2.htm (http://nplindia.org/npl/Indian Standard Time-2.htm)
Standard Time & Frequency stations is a topic for our Amateur Radio exam. There are often objective questions about the Indian station's callsign and the agency operating it. In the recent months the following Time stations also have discontinued their Short Wave transmissions. 1. JJY, Japan 2. VNG, Australia
73 de Jose Jacob, VU2JOS, AT0J

Dear Sarala
Read last issue of magazine, quite lively. ARRL's "LOGBOOK OF THE WORLD" have started testing their software.
This, when fully functional, will make unnecessary to send qsl cards for award purposes for verification and save postage to the hams and time for ARRL to verify the cards.
If successful may be all qsl buro's will shut down!
Qsl managers can stretch their legs and yawn!!
Hams will lose friendship with postman!!!
A great hobby of collecting qsl cards will die, perhaps.
In my long tenure as qsl manager of nearly 10 years I have seen many variety of cards of artistic, humorous, informative (like antenna design, circuit diagrams, formulae)architectural etc. One Japanese ham has sent his card in braille.
You cannot stop the changes taking place due to IT revolution.
Those interested in saving money and curious about the development can log into http://www.arrl.org/lotw.
73s
VU2VIT VITTAL

VHF OPERATIONAL PRACTICES:

1. It is illegal to trigger a repeater without transmitting a call sign. If you want to check whether you are able to access a repeater but do not wish to engage in a QSO, simply transmit 4S5AA testing.
2. Never engage in transmitting third party traffic. Do not ask another station to QSY to a predetermined frequency without announcing that particular frequency. Don't ask another station to QSY or QRP to discuss an important message.
3. Ensure proper behaviour of an amateur. You must not engage in transmissions that are intended to do on telephone.
4. Do not get into the habit of contacting few particular stations only. If another station calls you after a QSO reply him/her. If you do not wish to engage in another QSO announce QRT or 'closing down' during sign off.
5. Announce your call sign like "4S5AA monitoring" or "4S5AA listening" to engage in a QSO on a repeater. If you want to contact a specific person on the repeater, call him like "4S5BB this is 4S5AA." If you want to join a QSO simply transmit your call sign between two transmissions. Don't call break. If you are having a QSO and another ham transmits his call sign, the next station to transmit should recognise the breaker and allow him to transmit.
6. When operating the repeater, it is advisable to QSY to a simplex frequency whenever possible.
7. Keep transmissions on a repeater short. Don't allow the repeater to time out and shut down. Leave spaces between transmissions. Don't transmit as soon as the other station releases his PTT.
8. If you are a regular user of a repeater, please help to support the repeater to be on the air. Physical support is also necessary as well as financial.

(From the Newsletter of the Radio Society of Sri Lanka)

The 12th Conference of IARU Region 3 is to be held in Taipei from 16th to 20th February 2004. This Conference was originally announced to take place in September 2003, however, it was re-scheduled from the original date due to the SARS outbreak. This Conference is cordially hosted by the Chinese Taipei Amateur Radio League (CTARL).

The Little Lilly's English High School participated in the JOTA this year by using ham radio to interact with scouts and guides from other parts of Bangalore, Karnataka, rest of India and other countries. The dates 18th & 19th of October commomerate the birthday of the founder Sir Baden Powell and Lady Powell who were the founders of Scouts and Guides. Ham operators all over the world converge on this day to schools that are nearby and try to put the Scouts and Guides all over the world on air to talk to each other and the above event is generally termed as the International Jamboree on air. The speciality with the Little Lilly's English School this year has been that a few Scouts and Guides themselves were trained radio amateur operators who set up their own Radio Club station permanently in their premises with licence VU3LLE to operate the radio and bring in their fellow scouts and guides to actively participate with other guides and ham operators in the world. Every scout and guide in the school were able to understand this form of radio communications and were able to exchange their names, age, place of living, studying details, hobbies and local weather. In addition they sang several patriotic songs, scouts and guides songs, slokas etc on air. A deep bond of friendship and brotherhood was established throughout the country and abroad and National Integrity and patriotic feelings were kindled. The students of the Little Lillys used HF and VHF frequencies in the ham bands and also modes like SSB and FM for voice communications and the advanced digital modes like PSK31 and SSTV, sending their messages and pictures. The entire Scouts and Guilds formed teams, units for controlling the communications and interactions with other scouts and guides away from their locations. The guides who operated were Madhuri VU3MDP,Vasavi VU3VVI, Deepthi Rao VU3DRO and Niranjan VU3NRH. The proceedings were supervised by VU2RMS- Principal OM Ramesh. The children made dx contacts with Sri Lanka, Poland, Italy, France, Russia and Germany.

Lions Club of Bangalore North (324-D1) with its unique Lions Clubs International Ham Radio Station - VU2LCI took part in the 46th World Scout Jamboree on the Air & 7th World Scout Jamboree on the Internet along with Sri Chamundi Scout Group on the 18th and 19th October 2003. Lion MJF K.N. Kumar, District Governor 324-D1 inaugurated the event at Bala Mano Vikasa Kendra, Malleswaram, Bangalore. Apart from Scouts, Guides, Cubs & Bulbuls from Sri Chamundi Scout Group which is celebrating its 86th year. Thirteen Kendriya Vidyalaya School - Scouts & Guides visited the JOTA Wireless Station setup - In all more than 250 Children participated in the event, the event was assisted by Ten Amateur (Ham) Radio Volunteers.

During the 33rd Charter Nite function of Lions Club of Bangalore North held at Bowring Institute on the evening of 18th October 2003.Sri. Gajendra Kumar - VU2BGS - International 3rd Place and our National First Sri. Manohar BL (Arasu) - VU2UR - India's Second, Lion MJF Sadaqualla Shekh - VU2SDU - India's Third -Prize Winners of 32nd HLITA Contest held this January 2003 were honoured. The 33rd International Hunting Lions in the Air Contest will be held on 10th and 11th January 2004.

The Mumbai Amateur Radio Society conducted JOTAon 18th and 19th November 2003. They put up stations throughout Mumbai , namely at Scout Pavilion at Dadar Shivaji Park, Shriram High School at Andheri West, Suman Nagar School in Chembur, Goshala Municipal School in Mulund West, P.E.High School in Thane East, Shantinagar High School in Mira Road. In all about 1500 scouts and guides participated from the different stations and with VHF and HF stations, were able to talk to one another within Mumbai and also other JOTA stations in India and abroad specially JOTA stations from Oman, Indonesia, Riyadh, Sudan, Bangladesh, Malta, Slovenia, South Africa and Finland. The Hams who participated in this event were VU2HIT, VU2UGJ, VU2IVO, VU2NLF, VU3PAN, VU2JPN, VU3AUA, VU2SFN, VU2OZO, VU2IES, VU2UGO, VU2MWH and SWLs Ulhas, Anish, Ankur, Hrishikesh, Suren, Mukesh, Dilip, and Nilesh. VU2 ZRS operated from Lonavla, a hill station near Mumbai and 32 girl guides came on air. M/s Popular Soft Drinks sponsored about 400 bottles of soft drinks and the event was covered by ZEE Television Network.

Mumbai Amateur Radio Society once again provided the much needed communications links to the Mumbai Police, Life Guards, Ambulance Services, First Aid Centres and local Ganesh Utsov Mandals during the mega Ganesh Visarjan festival in Mumbai. The stations were set up at C.P Tank, Prathna Samaj, Lamington Road, Opera House , Girgaum Chowpatty Main Control, First Aid Centres and Life Guard Towers. Hams were also Maritime Mobile in Speed boats with rescue teams. There was a big active participation by MARS members as 35 Hams and 20 SWLs (awaiting tickets) offered their services for this noble cause. The event was quite successful as MARSians helped during 3 medical emergencies and solved 157 lost and found cases.

ARSI - MINUTES OF THE AGM HELD ON 9TH NOVEMBER 2003 AT GANDHINAGAR

In view of the fact that both the president and Vice President of the ARSI were not present for the meeting, VU2AF Adolf Shepherd Hon. Secy. proposed that VU2GMN Gopal Madhavan be asked to chair the meeting. This was accepted by the members present and VU2GMN then took the chair and called the meeting to order 37 members present signed the register

The quorum having been formed, the meeting took up the various items on the agenda.

The members present stood in silence for a minute in memory of those members who had become silent keys in the period elapsed after the last meeting.

The Minutes of the AGM held in Chennai in 2002 on the 5th October were taken up for confirmation.

It was pointed out by VU2GMN that some of the items were not recorded correctly. For example the item regarding voting rights of associate members where the words "The discussion remained inconclusive" were incorrect as a vote had been taken and the decision was that Associate members would not have voting rights. This had to be corrected and the constitution amended accordingly, if required.

The minutes were then approved, with the corrections, proposed by VU2JAU and seconded by VU2SWS, and carried unanimously.

It was also pointed out that in spite of several members asking that a budget be prepared by the society; no budget has been presented so far.

Item 1 of the agenda, the election of Office Bearers and members of the Governing Council was then taken up. The returning officer VU2PCD Pradeep had intimated that apart from the nominations of VU2AMB, VU2PAI and VU2DPD, all other nominations received were rejected as per the procedure laid out. As such these three members were declared elected and nominations from the floor were called for.

Nominations were received as follows for the years 2003-2005:

President- VU2RCR

Vice President- VU2SWS

General Secretary- VU2RKC

Treasurer-VU2RC

GC Member-VU2ZAP

GC Member-VU2GMN

VU2AF would continue on the GC as outgoing GS.

As there were no other nominations these members were declared elected. It was suggested, and agreed to, that the two other vacancies on the GC be filled up by co-opting members from other areas after getting the consent of the other members of the GC, so that ARSI could be represented over a larger area.

Item 3 on the agenda was then taken up. It was indicated by the Treasurer that while the accounts for 2001-2002 were complete, that for 2002-2003 represented the accounts only for the accounts maintained in Delhi and did not feature anything from Mumbai. As such the members felt that the 2002-2003 accounts could not be passed and so they were deferred for consideration at the next AGM. The accounts for 2001-2002 which were carried forward from last year were then passed, proposed by VU2RIG and seconded by VU2QBX and passed unanimously.

The Treasurer kindly agreed to complete the Mumbai accounts by end-December and they would be circulated to the GC. He was also requested to continue functioning as Treasurer until all accounts and connected papers were handed over to the incoming Treasurer. He has kindly agreed to this.

The Report of the President VU2SDN was then taken up for discussion. The problem of payments received via ICICI Bank that were not fully co-related to the remitter was discussed. It was felt that this may be continued for some more time and members be again asked to send copies of their deposit slips to the Treasurer so that the receipts could be given credit to the respective members.

The incoming Office Bearers did not have a proposal for the auditor to be appointed and so the present auditor was re-appointed for the coming year at the same remuneration.

Item 6, the appointment of the Liaison Officer, Editor of HRN, QSL Manager and Disaster Co-ordinator were also deferred and the present incumbents requested to continue till such time alternate arrangements were made.

It was pointed out that there were several members in arrears of payments largely due to the fact that the ARSI had earlier been rather inactive and no news-letters or magazines had been brought out for some time. As such they were reluctant to continue the membership and were also reluctant to pay the arrears. After discussing the matter, a proposal was made from the Chair that as a one-time measure, all arrears would be written off and members could pay the current dues to continue their membership. The time limit for this concession was March 31 2004, and it was clear that this was strictly a one-time measure. The members present passed this unanimously. It was also agreed that a strenuous drive be taken up to enroll more members and all concerned would assist in this effort.

The possibility of payment of Life Membership fees in installments was also requested by some members, but the modality of collection was felt to be too cumbersome and so was not agreed to.

VU2VIT requested to be told the current strength of the ARSI and VU2AF gave the figures- Patrons 2 ,Life Members - 273, Corporate-103 (paid up), Associate 28 (paid up). (Total including members with arrears-732)

The Chairman thanked the members for attending the meeting and also thanked the organizers of the Hamfest 2003 for kindly allotting the time and venue for holding the meeting.

There being no other matters for discussion, the meeting was closed with a vote of thanks to the Chair.

Sd/-

Adolf B. Shepherd, VU2AF

General Secrtary.

15th Novmber, 2003

Payment of Subscription:

IT WAS DECIDED AT THE ANNUAL GENERAL BODY MEETING AT THE GANDHINAGAR HAMFEST THAT AS A ONETIME MEASURE, ALL ARREARS WILL BE WRITTEN OFF AND MEMBERS COULD PAY THEIR CURRENT DUES TO CONTINUE THEIR MEMBERSHIP BEFORE 31ST MARCH 2004.

A simple low cost wire beam antenna for 20 meters
- by Alex Chandy VU2TXZ

This simple antenna should appeal to hams who have limited space in which to erect their DX puller. This two-element wire beam has its elements folded in the shape of a rectangle thereby enabling one to put up a full specs two element 20 meter beam in the space required for a 15 meter beam.

This type of antenna belongs to the family of Moxon Rectangles - which has been extensively modeled by L B Cebik (W4RNL). Full design details are available at his site http://www.cebik.com/moxon.html and www.cebik.com/moxpage.html. It has a forward gain of 6 dBi in free space and a F/B ratio of greater than 30dB !! It has a very broad frontal lobe (-3dB beamwidth = 70 degrees; useable beamwidth nearly 180 degrees forward) and the feed point impedance is exactly 50 ohms. Being a wire antenna, it easily fits the 'stealth' label, and can be constructed without the pocket feeling hardly a pinch.

All the above mentioned features combined to create the ideal antenna for me. Since I am not permitted to operate from my qth in 9K2, this antenna was put up with the sole intention of keeping open a channel of communication with VU land - just in case things went awry in the recent turmoil in the region. For this I needed a 'stealth antenna' with reasonable forward gain and a fixed directional coverage towards VU land. The Moxon fitted the bill perfectly.

If all the components are in place, the total time taken to construct and put up the antenna would be around one hour. Pruning it to resonance may take a while longer. A pre-cut and tuned antenna could be set up for a field day in less than 15 minutes. More importantly (in my case), it can be pulled down and dismantled in no time at all..... HI

My antenna was fed by 50 ohm coax with a 10 turn coiled choke at the feed point. I was able to trim the antenna for full resonance from 14.000 to 14.330 and rising to 1.25:1 at the band edge.

A quick check by hooking it up to a 100W rig at the Indian Embassy in Kuwait resulted in very encouraging signal reports. 59+ from the southern tip of India to 56 from Florida over the long path. Since this antenna was built for fixed directional coverage, we could not turn it around to check the front to back ratio in the short time we had for testing it. Eventhough I have not tested my theory yet, I feel that 2 of these beams (one pointing long path and the other short path) should give all round coverage due to its useable beamwidth of 180 degrees.

Given below is my recipe for the Moxon rectangle:

BOQ (ingredients)

Suitably thick copper wire 70 ft (I have even used galvanized wire for a full wave loop I built earlier with excellent results)

Center Insulator 1

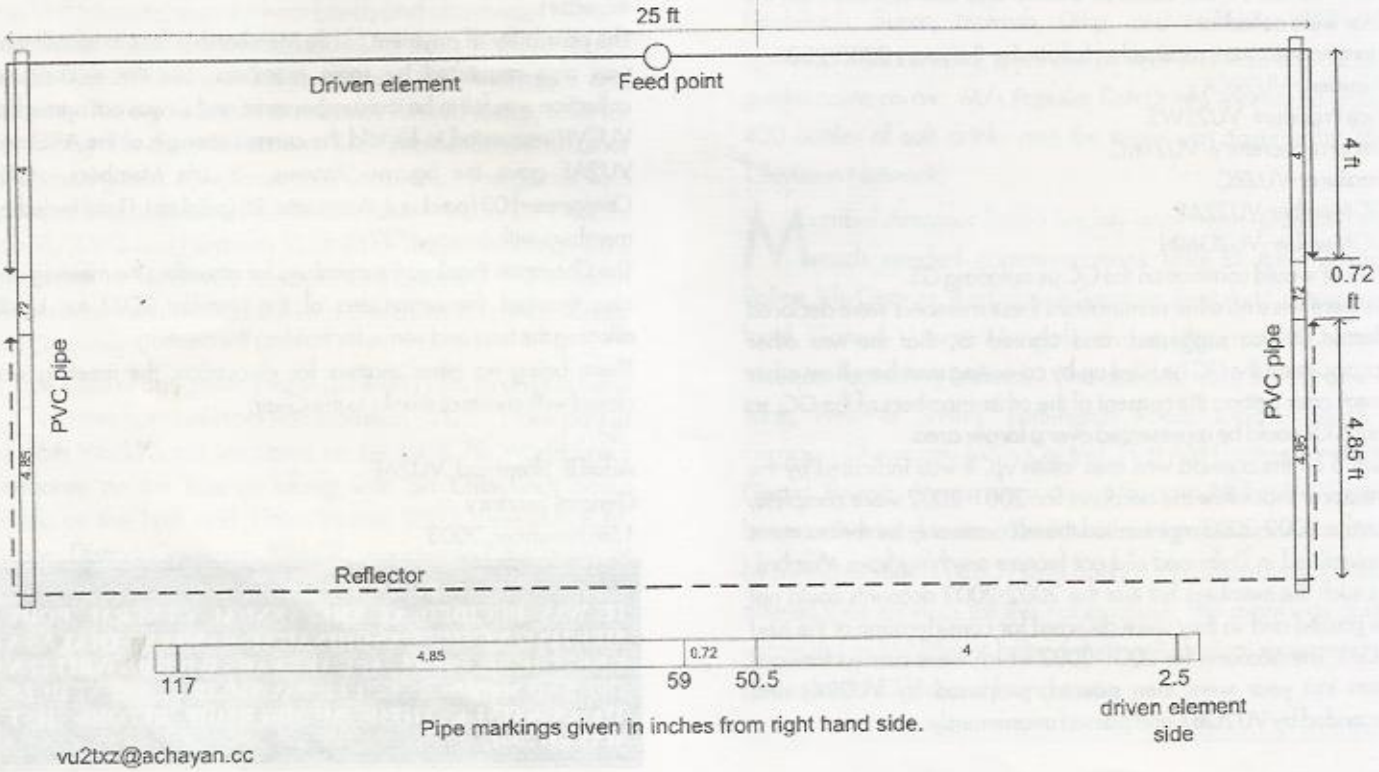
1 inch dia rigid PVC pipe 2 nos.

Electrical Insulation tape as required (according to your taste)

METHOD OF CONSTRUCTION (procedure)

Cut the wire to the following lengths. (Please note I am giving the length in decimals and you may have to convert it to inches

Sketch of Moxon 2 element wire beam antenna - as built by VU2TXZ



Pipe markings given in inches from right hand side.

vu2txz@achayan.cc

This simple antenna should appeal to hams who have limited space in which to erect their DX puller. This two-element wire beam has its elements folded in the shape of a rectangle thereby enabling one to put up a full specs two element 20 meter beam in the space required for a 15 meter beam.

This type of antenna belongs to the family of Moxon Rectangles - which has been extensively modeled by L B Cebik (W4RNL). Full design details are available at his site http://www.cebik.com/moxon.html and www.cebik.com/moxpage.html. It has a forward gain of 6 dBi in free space and a F/B ratio of greater than 30dB !! It has a very broad frontal lobe (-3dB beamwidth = 70 degrees; useable beamwidth nearly 180 degrees forward) and the feed point impedance is exactly 50 ohms. Being a wire antenna, it easily fits the 'stealth' label, and can be constructed without the pocket feeling hardly a pinch.

All the above mentioned features combined to create the ideal antenna for me. Since I am not permitted to operate from my qth in 9K2, this antenna was put up with the sole intention of keeping open a channel of communication with VU land - just in case things went awry in the recent turmoil in the region. For this I needed a 'stealth antenna' with reasonable forward gain and a fixed directional coverage towards VU land. The Moxon fitted the bill perfectly.

If all the components are in place, the total time taken to construct and put up the antenna would be around one hour. Pruning it to resonance may take a while longer. A pre-cut and tuned antenna could be set up for a field day in less than 15 minutes. More importantly (in my case), it can be pulled down and dismantled in no time at all..... HI

My antenna was fed by 50 ohm coax with a 10 turn coiled choke at the feed point. I was able to trim the antenna for full resonance from 14.000 to 14.330 and rising to 1.25:1 at the band edge.

A quick check by hooking it up to a 100W rig at the Indian Embassy in Kuwait resulted in very encouraging signal reports. 59+ from the southern tip of India to 56 from Florida over the long path. Since this antenna was built for fixed directional coverage, we could not turn it around to check the front to back ratio in the short time we had for testing it. Eventhough I have not tested my theory yet, I feel that 2 of these beams (one pointing long path and the other short path) should give all round coverage due to its useable beamwidth of 180 degrees.

Given below is my recipe for the Moxon rectangle:

BOQ (ingredients)

Suitably thick copper wire 70 ft (I have even used galvanized wire for a full wave loop I built earlier with excellent results)

Center Insulator 1

1 inch dia rigid PVC pipe 2 nos.

Electrical Insulation tape as required (according to your taste)

METHOD OF CONSTRUCTION (procedure)

Cut the wire to the following lengths. (Please note I am giving the length in decimals and you may have to convert it to inches depending on the graduations on your scale. Ie 16.5 ft = 16ft 6in.) Driven element = (2 x 16.5 ft) 33 ft + whatever is required to go around the center insulator. Reflector = 34.7 ft.

MEMORIES OF ANOTHER DAY:

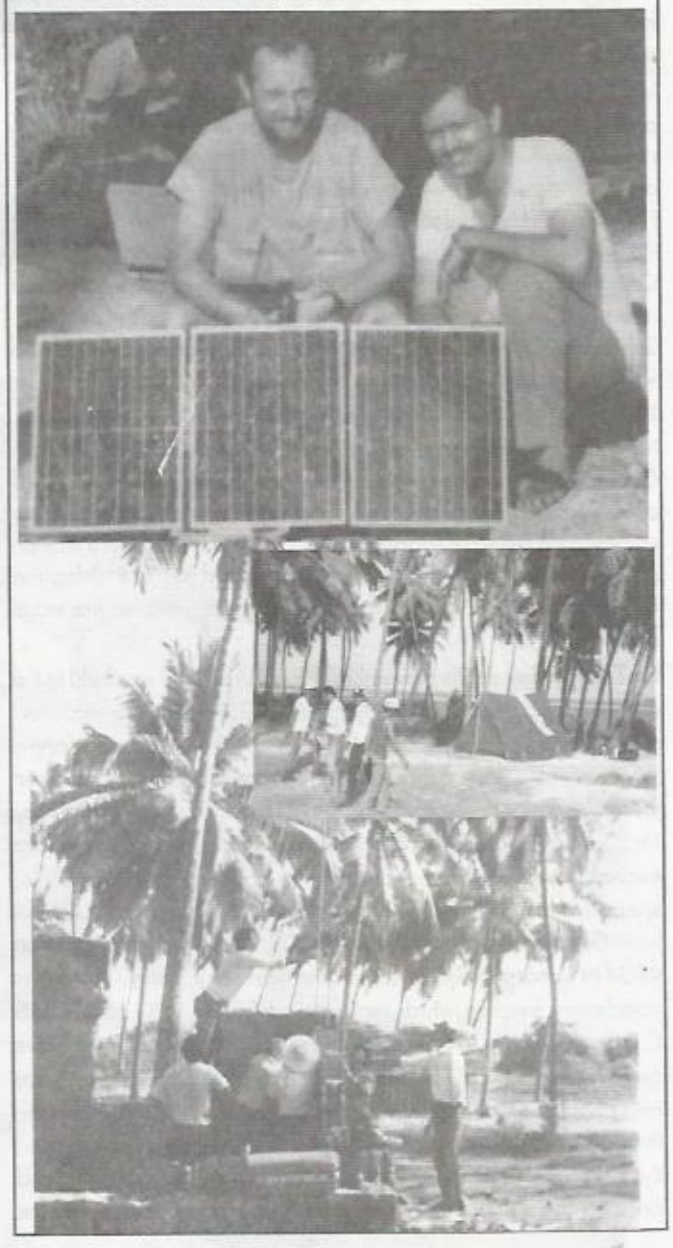
First IOTA (Island On The Air) activation from India was St. Mary's Island (Karnataka). Reference no. Is AS-096(as per RSGB IOTA directory of year 2000).

This was activated on 1st of February 1992 by a group of about 8 Hams lead by Nagesh, VU2NUD with German Ham Bernard, VU2BMS/DL2GAC.

It is a small island about 12Km from Malpe/Udupi (Near Mangalore). It is located in Arabian sea, Indian Ocean. Exact bearings are 13 deg. North and 74 deg. East.

Next IOTA activation from India was almost 10 years later!!

1) Bernard, VU2BMS/DL2GAC and Nagesh, VU2NUD with the solar panel to power the rig
2) Tent pitched up for the night stay.
3) Erecting antenna in progress



HAMFEST INDIA 2003
- by VU2CPV, Pravin

Hamfest India 2003 was held at Gandhinagar, the capital of the State of Gujarat. It was on the 8th and 9th November 2003 at the Town Hall. The event was organized by Institute of Amateur Radio Gujarat (GIAR; www.giar.org). The venue-Town Hall situated in the central part of Gandhinagar city, is a centrally ac hall having a capacity of over 1100 seats. There were 300 registrations already done before and over 100 registrations on the spot. So in all 400 delegates registered for the event. The HAMFEST was inaugurated by The Chief Secretary of Gujarat State, Mr. P. K. Laheri IAS. Mr. S. K. Nanda, the Chairman of GIAR, Vice-Chairman Mr. E. Radhakrishan (VU3LRE), Mr. Suri (VU2MY), the Chairman NIAR and Mr. Jagdish Pandya (VU2JGI) Gen. Secretary of GIAR were present on the dais for the inauguration function. Mr. Laheri and other dignities carried out the Dip Pragtaya ceremony and delivered their speech. There was media for coverage of the HAMFEST-2003 inauguration function as the event is hosted in Gujarat after period of 30 years.

In the first technical session Mr. Nilesh Rathod (VU2NLF) presented a nice slide show about the nation wide disaster preparedness plan as well as updating of the technology and importance of drills, which was followed by debates from the delegates about it. Mr. Arasu (VU2UR) delivered the speech about "Indian Amateur Radio practices, priorities and the State, during Disaster Communications." Mr. Vilas Rabde (VU2VPR) gave presentation about "My experiences/ interfacing the computers to the rigs". Mr. Suhas (VU2SMN) delivered the speech about various awards and what should be the preparation for taking part in contests.

There was excellent entertainment program in the late evening. Nice stage performance of various traditional Gujarati Navratri Garba was presented by young boys and girls. The entire crowd cheered the performance and the whole atmosphere was alive enjoying the superb performance by the artists. Then there was an open dance session for the delegates and all the delegates including Chairman of GIAR and NIAR were seen on the stage having lot of fun.

On the next day on 9th November the AGM of ARSI was held in the morning and then Mr. Kumar (VU2BGS) gave an excellent presentation on various digital modes of ham radio. Mr Sanjivi (VU2SJV) also gave a nice presentation on the same mode. Then there was a nice presentation on the hot favorite echo link given by Mr. Sarath (VU3RSB) from NIAR and a lot of delegates were excited about the demo and many of them enjoyed QSOs, specially talking with VE6XMX previously operating as VU2XMX from Gandhinagar ly. Mr. Jinofar (VU2JJJ) gave a presentation on RBGAN inmarsat satellite communication links. Lastly there was valedictory function which was chaired by Dr. P. K. Mishra IAS C.E.O., GSDMA. Awards for presentations and articles were given. Awards for VU friendly net and eyeball QSO contest were also presented to the winners. Vote of thanks was delivered by Mr. Pravin Valera (VU2CPV), thanking all the delegates, sponsor and the volunteer teams for the success of the event. The food arrangement for both the days was highly appreciate by all the delegates. The announcement for the next HAMFEST-2004 to be held at Mumbai by MARS was made during the valedictory function.

All the out station delegates were received by the help desk centers at the Railway Station and Airport. Transportation from Ahmedabad to Gandhinagar was also provided by the HFI organizers. Nice arrangements were made for quick registration at the venue and delegate cards and delegate kits were issued by the registration committee. Delegates were a given warm well come by the reception committee and, break fast and hot drinks were arranged. Jagdish VU2JGI, Pravin VU2CPV, Jinofer (VU2JJJ) and Manoj (VU2EHY) took up most of the hard work and worked tirelessly day and night. Mr. Joravar (VU2HBZ) was smartly handling the two event as an anchor. The event was immaculately organized, perfectly planned and a grand success. The food was excellent (b/f, tea, lunch, high tea, dinner were served), hotel arrangements outstanding and everything went like clockwork. Volunteers in blue t-shirts were ever-present round-the-clock to help and the organization was wonderful. Great job was done by Pravin, Jagdish and their team. The event was sponsored by Gujarat State Disaster Management Authority (GSDMA), Adani Export Ltd. and Intas Pharma.

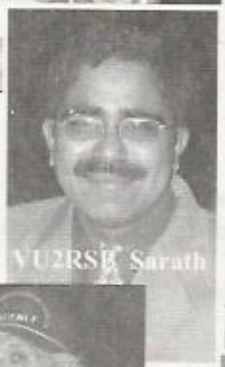
The Inauguration

Mr. P.K.Laheri

VU2HBZ, Joravar

Souvenir release

The M. C.



VU2RSR Sarath

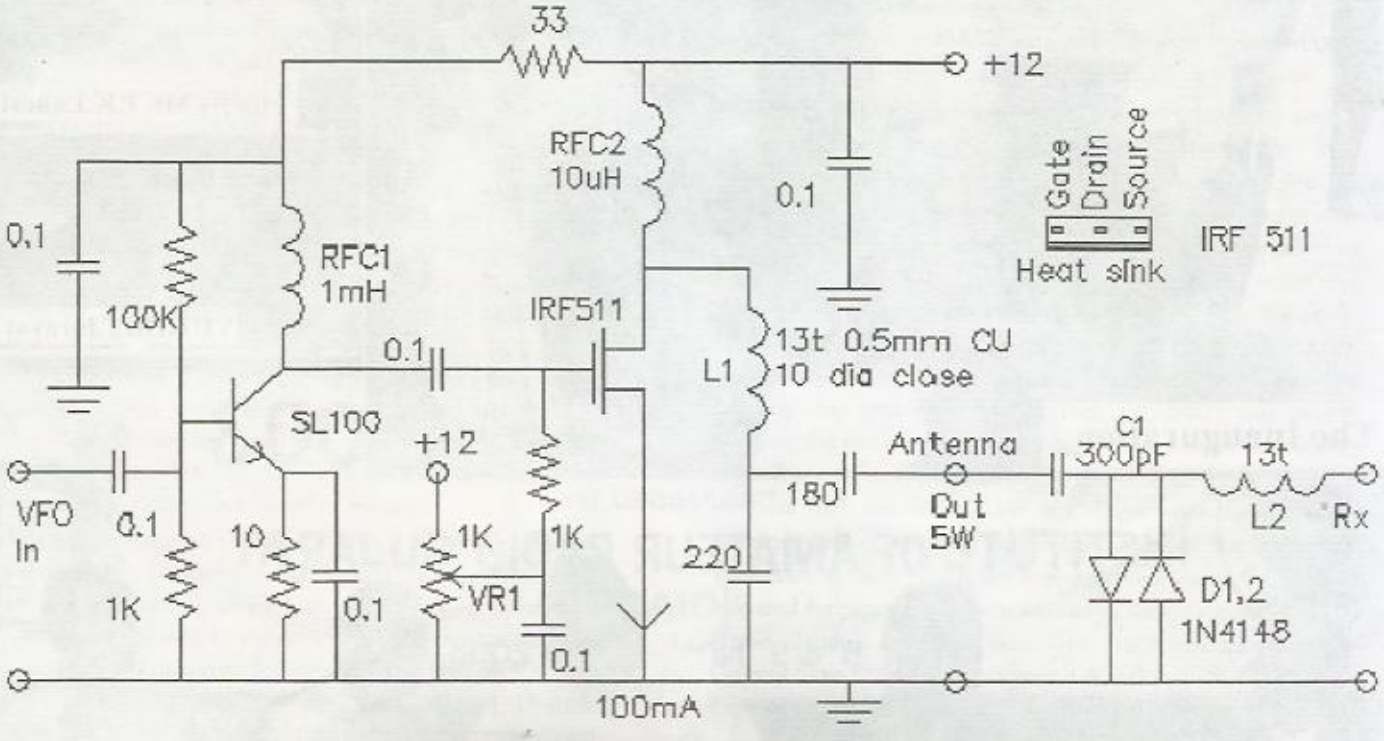
Speakers

Delegates

VU2NLF
Nilesh

Registration

QRP 5W Transmitter
-by Raj VU2ZAP



Construction Notes:

1. RFC1 is a standard lead type inductor.
2. RFC2 should be substituted by winding approximately 40 turns of 0.5mm enameled copper wire on a 10mm diameter plastic tube or rod.
3. L1 and L2 are would on 10mm plastic tube or rod with 0.5mm enameled copper wire.
4. Before applying power to circuit, set VR1 to minimum position.
5. Adjust current in IRF511 by VR1, to 100mA.
6. Mount IRF511 on a large heat sink. Small heat sink will result in the device running very hot and the power output will drop.
7. L2, C1 with D1,2 form part of the antenna switching circuit. They may be omitted if not required.
8. To control power output insert a small potentiometer at the VFO input to this circuit.

The Amateur's Code (Written by Paul M.Segal, W9EEA, in 1928 :-
The Radio Amateur is :
CONSIDERATE ... never knowingly operates in such a way as to lessen the pleasure of others.
LOYAL ... offers loyalty, encouragement and support to other amateurs and local clubs.
PROGRESSIVE ... with knowledge abreast of science, a well-built and efficient station and operation above reproach.
FRIAENDLY ... slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.
BALANCED ... radio is an avocation, never interfering with duties owned to family, job, school or community.
PATRIOTIC ... station and skill always ready for service to country and community.
(Re-produced by Bal-sun, VU2UYC.)

Think about it ! ! !
Can you imagine tuning across the Ham bands ad not hearing the music of Morse Code? It would be like walking a country road without the songs of the birds!!!. High Tech is good; let us give our minds to it, not our souls.
"World Radio" submitted by VU2VIT, Vittal.

HALL OF FAME

VU2 AJ, OM DUTT
CQ DX WW CW Contest 1958, 1962, 1985, 1988, 1998.
ARRL CW DX Contest 1962 & 1963, SACAJ twin city Washington 1965,
VU FIRST GARDEN CITY contest 1985, AIR NET INDIA INTL DX contest both in
CW and in CW and Phone combined in 1983,
WGDC USA with higest title "DANGER RANGER"WA-VK-CA in 1963,
ADXA special award in 1970 from JARL, ROYAL OMANI ARS silver jubilee award,
WORKED ALL TIGERS EAST- PAKISTAN ARS,
First VU to bag coveted "GOLDEN JUBILEE DXCC" from ARRL in 1968,
First VU to get "RADIO COMMUNICATIONS CERTIFICATE" from city and guilds of London Institute in 1938, when radio activity in India was minimum.
Present qth: Mumbai

VU2SDU OM SHAIKH
DXCC for mixed SSB
Present qth: Chennai.

SWL VU 0020, T.K.VISHWANATHAN
IOTA(first IOTA for India credit-177 Islands) GSQA from Germany (First award in south east Asia)
SSA-75 from Sweden
Maritime mobile award from Poland R-150-C CW from Russia
WSPHCM from Poland, BAFARA from Belgium
CWJF from Brazil
EWWA HF 200-CW from France
Present qth: Tellicherry, Kerala

VU2SMN OM SUHAS

DXCC-(PHONE), 10M, DXCC(GOLD), YL.DXCC, MARCO ROLO (HONOR WITH GOLD MEDAL), WPX (HONOR), ISLANDS OF THE WORLD (HONOR) DIG TROPHY, DUF (MEDAL), DAF (EXCELLENCE), IARS REGIII (HIGH HONOR TROPHY), GUGLIELMO MARCONI(GOLD MEDAL),ADXA(SPECIAL AWARD), AUSTRALIA DISH, CAPTAIN JAMES COOK, NINE DRAGONS, CHENGIS KHAN, WHITE STICK, WORLD PEACE, TROPIC OF CANCER AND CAPRICON, WAZ, WAC, CIA, CQDX 10M, TRANS PACIFIC, TPA, JCC, AJD, UNITED NATIONS, WORLD CHAMPIONSHIP, JORDANIAN SILVER, AMERICAN EAGLE DX, SHERLOCK HOLMES, DX DYNASTY, CATCH 22,WASCC,WAFCC,WECC,WAMCC,1,00,000, ALL NATIONS, IARU REGI (SPECIAL), DIG 77, WGLC, W.DIG.M,WAE, EU.PX.A, EU.DX.D, OLYMPIC GAMES, EUROPEAN COMMUNITY,100NATIONS,RED CROSS, RAAG, ALL PARAGUAY, BRAZILS FRONTIERS, ALL AFRICAN CONTINENT, ALL PACIFIC, UNICEF, LION CITY SINGAPORE,21 MERIDIEN, ALL ASIAN PREFIXES, CHC/ITU ASIA, ROYAL OMAN, ALL KOREA, CENTRAL AMERICA,24TH OLYMPICS,1988,RHINE RIVER,100) BLASTS USSR, SLY FOX, ALL MEDITERRANEAN,S6S CZECHOSLOVAKIA, ALL KENYA, WPX ZONE 15,BFRA,KANGAROO ISLAND, ITU 17/18,28 PARROTS AUSTRALIA, DANUBE RIVER, SOUTH AMERICA, GRAND PRIX, JUBILEE TRADE TRAIN, ALL ZONE 14,NCDXF CERTIFICATE, JUBILEE 150 AUSTRALIA, 40TH ANNIVERSARY ISRAEL, 40TH ANNIVERSARY PAKISTAN AND BRAZIL, ZONE 40 (SPECIAL),ALL ITU ZONES, COMMONWEALTH CENTURY CLUB, NORDIC COUNTRIES, MAPLE LEAF AND MANY MORE. PRESENT QTH: KOLHAPUR.

Payment of Subscription: IT WAS DECIDED AT THE ANNUAL GENERAL BODY MEETING AT THE GANDHINAGAR HAMFEST THAT AS A ONETIME MEASURE, ALL ARREARS WILL BE WRITTEN OFF AND MEMBERS COULD PAY THEIR CURRENT DUES TO CONTINUE THEIR MEMBERSHIP BEFORE 31ST MARCH 2004.

Using Readily Available Components For Hombrewing

Rahul, VU3WJM

There are many facets to our wonderful hobby but I have always been very fascinated with the homebrew side of our hobby as it is particularly satisfying when a project is completed and its performance equals or surpasses that of commercial gear. Having seen my interest in this side of the hobby, OM Zal, VU2DK, asked me to put down some tips on utilizing readily available commercial components for ham use in VU land. So, here are a few ideas from me. If you find even one of these interesting , then the effort has been well worth it. You will not find any formulae or circuits here, but hints on practical applications and use of readily available consumer electronic components.

COILS:

There are two categories

I) Tuned

II) Broadband

I)Tuned :

These come in three varieties :

a) Variable / Tunable type: The range covered by this type extends from the top band to the 6mtr band. Normally these are of the cup dumb-bell type and are similar to the 10mm IF transformers we encounter in transistor radios. They are classified by the colour marking of its core i.e. the colour on the base of the dumb-bell. The red ones are used in the lower frequency range up to 2Mhz. The yellow coils are used for rest of the HF bands and are termed as MH81 in commercial circles. There are also plain black cores that are generally considered equivalent to MH81 and have near about same characteristics. They are of most use to us for bandpass and IF coils in homebrew sets

Practical applications : These include ROSY type TV - IF coils in NR60, coils of ATS1, etc. Recommended wire gauge for winding is 42-44 SWG.

The world goes gaga over TOKO coils. They can be found in junk boards. Even if not new, these coils are excellent for use upto 80Mhz and consist of a four-section former with a cup type ferrite shield and screw type core. I would recommend them for good performance on HF bands. The ferrite cup in itself makes an excellent toroid for tuned coils.

Practical applications : 10.7 MHz IF coils, 36MHz and 72MHz bandpass coils of WVX 2mtr VHf homebrew rig and coils in Elecraft K2 HF kit.

b) Toshiba type :These coils are so called because of its use in TV chassis of the same company. They have a simple former - 5mm in dia. with a screw type core. The coil is used for frequencies up to 100 MHz. These coils are highly recommended for upper HF bands and beyond. They have been successfully used in CQ DL design on 14Mhz and in currently highly popular RM96 by OM RAO VU2RM. Recommended wire gauge is 30SWG onwards.

Others: Recently few other types are also seen like the dumb-bell cup type in 7mm sq package and its 5mm height variant. They are frequently encountered in the electronic stuff originating from the east of VU land, but its all like chowmein and a bit difficult to work with. Coils from cordless phones (working around 46-49Mhz) can be used for making 6m equipment. We also encounter other low frequency coils from SMPS power supplies and electronic ballast for CFLs. Such coils are good at low frequency. OM Zal, VU2DK has successfully used them to make LC AF filters (true HAM ingenuity). I intend to use them in assembling single conversion transceiver ARRL design.

c) Air core : These coils are mainly used in circuits from 6m onwards. They are coreless, self supporting type so not much trouble in their construction. Coils on simple formers are good choice for high stability VFO. I would like to mention that an excellent former for making the VFO coils is a plastic disposable syringe.

(II) Broadband :

In order to cover whole of HF spectrum the current technology follows broadband design for general work. Big cores are not required and CATV equipments have many that can be used by home brewers. The common types used are 5mm bead, 7mm bead, 2-hole types, miniature baluns, normal baluns, i.e., binocular cores, toroids with 0.5" dia, etc. The smaller cores find application in making RFC's. Broadband coils are used for small signal amplifiers, diode mixer transformers; baluns and toroids in driver stages (1-2 w range) and stacked configuration of toroid and baluns for HF linears PA (bipolar and MOSFET types). These coils can be purchased new or salvaged from splitters and 'tap offs' used for CATV distribution. Why not befriend your local cablewallah and get defunct equipment from him for your homebrew project?

Transistors

Use of transistors in amateur projects have been generally limited to a few common general purpose types like the BC14X/54x series, the BF19X series and the 2NXXXX series. Now however, we also have the 2S A, B, C & D series of transistors from the Far East. These are generally employed in switching stages. Some examples of these transistors are the 2SC1383, 1815, 2SA684, 2SB564, 2SD880 etc. Others like the 2SC1393/94 are good for RF-IF preamplifiers and are freely available. These can also be salvaged from junked B&W TV turret tuners. With the advent of cable TV, transistors with very high ft 5 to 7Ghz - are also available. Common among them are the BFR91/96, 2SC2570, MPS571 2SC3358 etc. They perform well on HF bands with negative feedback. They can be used with tuned circuits for 2m to 70cms and beyond. For slightly higher power we have the popular 2N3866 and BFW16 that can be used upto 70 cms. High current biased transistors are now becoming very popular for RF preamplifiers with negative feedback or noiseless feedback - Norton amplifier configuration. Such transistors also find wide application in driver stages of homebrew HF rigs. While on this subject, I would like to add that we can also use transistors like the 2N3053 and 2N2219 for HF bands.

Another practical approach is to use 2 nos. of 2N2222 transistors in parallel for HF bands. Going to the 2w power stage, we have switching transistors like the BD135-9 being used. The substitute is 2SC1162, a switching transistor which is widely used in emergency lights . Recently I have also seen the 2SC1969 and 2SC1971 in the market. These two transistors are good for homebrewing rigs upto 6m and 2m respectively. The 2N3553 still remains a favorite for a 2m PA stage.

Dual gate MOSFET and FETs find regular application in our circuits. Among the common ones are the 3N200, 40673 but these can now be considered as obsolete. You may use the BF966 and BF981 which are very good devices and also the BF989 which comes in an SMD package. A very common source for these devices are old colour TV tuners as they have a couple of them in each unit. The BFW10 and BFW11 are the only old fets which are regularly available but now we have the 2SK599 also available which is good for use into the VHF range. The 2N3819 and MPF series are also available on and off.

ICs

These components are an integral part of almost all equipment being made in the RF field. The MC1496 has remained quite popular for long but now the NE602/NE612 seems to have taken a lead as these chips are available in the metros but they are a bit expensive.

While surfing the net, I came across the TA7358 which is an FM oscillator-mixer chip. This one has been used in various projects - after carrying out suitable changes - in place of the NE602/NE612. It is easily available and very cheap and it not only has a doubly balanced mixer and oscillator but an RF preamplifier as well. Another similar device is the AN7213. Recently I came across various circuits using 4066 and 4053 digital chips for mixer applications. These too need some attention. The cordless phones use MC3361, 3357, 3359 for NBFM processing. Hence, these ICs are also available quite easily. The ultra cheap scan type FM receivers use the TDA7088 with 70khz IF and RC filters. Thses can be used not only to make simple monitors for the VHF bands but also for direct conversion receivers for HF. These sets also use a BB809 varicap diode used for scan tuning. The BEL7611, as used in the ATS-1 design remains an excellent application of a TV IF chip for general RX processing.

AF amplifiers too form an integral part of my search. It is very common to find LM386 and TBA810 being used but there are devices like the LM380, LM1895, TBA820, TA7368, uPC1213 which are much better devices. For people wanting a bit more power, we have the TDA2002, 2003, 2030, etc which are all used in a variety of consumer equipment.

Cable TV

Components used in CATV are highly suitable for our projects apart from splitters and tap offs being a source of good quality ferrite that is suitable for VHF bands. They are good for HF use too as they are used in this range in the reverse path. The aluminum die cast boxes are suitable for making SWR bridges, VFO assemblies and can also be used for making adaptors of various types to connect cables with connectors that do not match. Attenuators used in cable amplifiers also work well on HAM frequencies and make a nifty accessory for FOX hunting. The red ones are capable of 20db and the blue ones of 30db attenuation. Their 75 ohms impedance does not matter much here.

Lnbs And Set Top Converters

The bullet amplifier used in the LNB line is a good source for MMICs. Components that find application in the field are high FT transistors, PLL ICs like MC14515, MC145152, MC145106, MC44XX series, etc. Pre-scalars like SAB6456 divide by 64,256 upto 1.2Ghz and MC12017 can also be found in the LNBs.

Older satellite receivers also yield NE592 video amplifier and NE564 PLL chip. There are some tuners available that are of interest too. One of them is the analogue tuner covering 900-1750 Mhz range that can be effectively used in RX of 23cm band. They also have a built in pre-scalar divide by 256, capable of working upto 3GHz. This section can be isolated and used with low frequency counters to make good test equipment. The rest of the tuner has good number of SMD components. Another interesting tuner is the one used in set-top converters. When salvaged, it yields quad-diode mixers, divide by 128 pre-scalar varicaps, etc. As far as I know, old defunct LNBs are a very common source of GasFETs.

Coax cable

All of us are highly excited at the large range of co-axial cables that are now available in the market. Unfortunately most of these are for cable TV use and have a characteristic impedance of 75 ohms. So, some sort of transformation is needed to use them with 50 ohm equipment. However, they can be used as phasing lines, transmission line capacitors, coax traps, etc. They are manufactured with different dielectrics like air, foamed polyethylene and rigid polyethylene. It is difficult to use these cables for HAM purposes, as they are normally used with various diameter 'F' connectors. So the best option is to use an 'F' connector' on the original cable and use a 'BNC to F' adaptor that is used between CATV equipment and a signal strength meter. You may fabricate such a connector in a small box. Many brands like Commscope, Hitachi, North American and the world famous Belden cables are available. I have used these cables with many homebrew rigs by making the output of the equipment for 75ohms.

Salvage

A home brewer is always on the lookout for components and what better way than to salvage them from junk. There was a time when one could make a transmitter out of a TV set and the same holds true even today. The tuners provide dual gate MOSFET and other SMD components apart from VCO's, diodes, varicaps, etc. The tuning panel provides a number of multi-turn controls for tuning homebrew stuff. Old mechanical UHF tuners have beautiful air variable capacitors with slow motion tuning. The IF section yields coils, ICs, ceramic resonators, etc. The speakers and the AF amplifier are an integral part of each set. The ferrites in the SMPS EHT section can be used to make RFI filters and chokes. The power FET can be used for TX finals. From the antenna you can make a 2 m beam.

Phones

All of us have defunct ones at home. The microphone cartridge works well as a mike or as a replacement element for our rigs. The keyboard along with the associated dialer chip is an excellent DTMF tone generator. The cradle switch makes an excellent PTT - much rugged then anything else.

Cordless Phones

These instruments are complete units in themselves and can be tuned for local 6m operation by changing the Xtals. If cordless

phones are non functional they can be cannibalized for Xtals, ceramic filters coils, NBFM detectors, AF amps, micro speakers, condenser mikes, antenna, etc. Even without any change one may interface them with the equipment in the shack and be on the band while roaming all over the garden or even while cooking dinner! Hi! There are these Chinese high power units we are all cribbing about. The base gives an output of 4w on 2 m. Wait till I get one of those.

PC's

Fast upgradations have resulted in a lot of them being available in the market. The working ones can be used for logging, CW and other digital mode operations. You may even use one to design PCBs since the Internet has lots of software for older machines. In the non-working PCs you may get lot of SMD components, logic ICs, XTALs, oscillator modules, connectors, capacitors, heat sinks and their associated fans.

Modem Cards

Modem cards have very good audio isolation transformers, optocouplers and buzzers. Even the older, slower ones have them.

Other Equipment

Floppy drives have stepper motors but let me see where you could use them. Ah yes! Push button control for ATUs. From sound cards you can remove the audio amp section, connectors, sockets etc.

UPS invertors can be successfully used for making linear power supplies and battery chargers. It is a simple matter of adding a few more turns to the windings. The UPS transformers really do make a nice PSU for VHF mobiles.

There is more!! But you will have to wait while I open this monster of an old mobile phone and perform a post mortem.....

Silent Key

VU2AJY Shree Amidhar Bhatt of Ahmedabad became a Silent Key on Sunday 5th October 2003 at 0800 hrs. He was 77 years old.

Mr Jagadish. VU2JH of Hyderabad became a silent key on 16th of September 2003.

VU2LE. OM Bala became a silent key on the 2nd of December 2003 at Chennai.

Contest Calender

FEB 21st, 22nd 2004 ARRL CW International Dx Contest
MARCH 6th-7th 2004 ARRL PHONE International Dx Contest.

Governing Council Members of the ARSI

VU2PAI - Ananth Pai (Pai)
VU2DPD - Dipti P. Dey (Dipu)
VU2AMB - Anand Bose
VU2ZAP - Rajendra Kumar (Raj)
VU2GMN - Gopal Madhavan
VU2AF - Adolf Shepherd

Two more GC members will be Co-opted in due course.

LINKS AND NEWS

For Satellite timetables: www.heavens-above.com

If u like to home-brew simple INTERFACE CARD and connect to your PC & HF(29 Mhz only), VHF or UHF/SHF by getting a 'LINK' node # from ECHOLINK TEAM, circuit/details etc are available at http://www.microsec.net/eqso.htm

To brew a Fanantenna: http://www.qsl.net/w4sat/fantenna.htm

An anonymous treasure of all Tranciever/like manuals incl. HP/ICOM/yaesu etc.http://212.159.46.133.

The Project Echo satellite is due to be launched on 31 Mar 2004 on a Depnr rocket into low earth orbit. As well as an FM transponder, it will have various data modes, using S and L bands. Further details of the satellite are available at http://www.amsat.org/amsat/sats/echo/article-02-11.html

The Amateur Radio on the International Space Station (ARISS) international team has announced an on-the-air event to commemorate, Roy Neal, K6DUE, who died August 16. ARISS requested that the ISS, Expedition 8 crew communicate from space with earthbound radio, amateurs during the November 29-30 weekend. Those contacting the ISS, by voice (NA1SS) or packet (RS0ISS) through the end of December will be eligible for a special anniversary event certificate. The Frequency details for India of the month-long Amateur Radio special event on board the International Space Station is as follows starting from 29 Nov 2003 is: Callsign (Voice) : NA1SS, (Packet) : RS0ISS

Worldwide downlink (both modes) : 145.800 MHz FM

Voice uplink for India (Region 3): 144.490 MHz FM

Worldwide packet uplink : 145.990 MHz FM

ARISS requests that participants keep all contacts short.

The USSR with its 15 Republics (before it became CIS) had about 198 administrative areas. They covered all the geographical areas held by USSR including those at Arctic and Antarctic land masses. These were officially called "Oblasts" or "Regions", abbreviated as "Obl. or Reg."Every QSL card from the Ex-USSR showed on it, this oblast information as a "three digit" number. The oblasts could be easily identified by the characteristic first alphabet of the suffix in the call signs. Ex: RU1A or UA1AT or RZ1AN or RU1AN etc are all from the Old Oblast of the Leningrad (now renamed St. Petersburg) Krenekel Central Radio Club of the PO Box 88 fame, had awards like Worked 100 Oblasts (R-100-U) etc.,.VU2AJ and SWL VU-0020 are the two known to have this award. VU2UR, though having over 175 Oblast QSLs did not attempt the award. ES1RA of Estonia, has " all the Oblasts Worked" award.

After USSR became CIS and Russia being the big area, redesignated its oblasts by a new system of "two alphabets" identifiers. The "Union of Radio Amateurs of Russia-SRR" which is separate from PO Box 88, organizes "Russian DX Contest" in which the Russians exchange this new identifiers along with their RST. For the RU1A-St. Petersburg area, it is "SP" now.

In the new millennium, a further development has taken place. The Russian are now giving more accurate info about their QTH. Each identifier is now followed by two digits also, which is called a Russian District. This an amateur in St. Petersburg city may send you "SP-01" as his RDA number when you work him next.

A new award called "Russian District Award" is available now for those who can prove their QSOs with more than 100 RDs. More information on request from VU2UR.

Radio would be impossible without *propagation*. How well do you understand this fascinating phenomenon?

1) What ionospheric layer is mostly responsible for long-distance communication on the HF bands?
a. D b. E c. F

2) Propagation of VHF signals along weather-related features is termed:
a. EME c. Sky wave
b. Tropospheric d. Line-of-sight

3) "Ping Jockeys" use what to reflect their signals back to Earth?
a. Airplanes c. Aurora
b. Radar dishes d. Meteor trails

4) Sporadic-E propagation is most common on which two bands?
a. 50 and 144 MHz c. 144 and 222 MHz
b. 21 and 28 MHz d. 28 and 50 MHz

5) Which of the following is the frequency at which a signal—beamed straight up—can *just* be returned to Earth by the ionosphere?
a. Critical Frequency
b. Maximum Useable Frequency
c. Optimum Traffic Frequency

6) The frequency expected to be the most reliable for communication over a specific path is the:
a. Critical Frequency
b. Maximum Useable Frequency
c. Optimum Traffic Frequency

7) If a radio wave makes two successive reflections from the ionosphere without returning to Earth, it's called:
a. A chordal hop c. The equatorial anomaly
b. Whispering-gallery propagation d. Sky wave

8) The Maximum Useable Frequency, or MUF, is the highest frequency that can be reflected by (one) (all) of the ionospheric reflections along a given path.

9) "Picket Fence" modulation of a VHF signal is caused by:
a. Multipath interference c. Sporadic E
b. Noise d. Ducting

10) Which of the following is least likely to cause attenuation of microwave signals?
a. Rain c. Glass
b. Green foliage d. Fog

11) True or False?
a. T F UHF communication is restricted to line-of-sight paths.
b. T F All 160-meter contacts are made by ground wave.
c. T F VHF Receiving antennas should have the same polarization as the transmitting antenna.
d. T F Storms and cold fronts are good indicators that long-haul VHF contacts may be possible.

12) The ionosphere often reflects signals in the direction of the transmitting station as well as along the intended path. This reverse-direction propagation is called:
a. The inversion layer c. Backscatter
b. Spin modulation d. The Doppler shift

13) Stations too close for sky-wave and too far for ground-wave contacts are said to be in the:
a. Doughnut c. Twilight zone
b. Skip zone d. Diffraction zone

14) The distinctive warble of signals propagating near the magnetic poles is termed:
a. Polar flutter c. Spin modulation
b. Stratwarm d. Birefringence

15) The terminator at the division between the sunlit and darkened halves of the Earth gives rise to what type of propagation path?
a. Polar c. Long
b. Skew d. Gray-line

Bonus! In what year did transatlantic two-way communication first take place between amateur stations?

Total Your Score!

Give yourself 1 point for each correct answer.

13–18 **You have a fine understanding of radio propagation. *Bravo!***

7–12 **You know enough to get by, but you'd benefit from a little homework.**

1–6 ***Ouch!* You're missing one of the most exciting aspects of radio!**

Answers

1. c—The F-layer is the highest that can reflect radio waves and is the most efficient at doing so.
2. b—Tropospheric propagation includes any caused by atmospheric phenomena.
3. d—The sound of a CW signal bouncing off a meteor trail has a distinctive "ping" sound.
4. d—Although it can occur on **144 MHz**, the mode is most common on 10 and 6 meters during the summer months.
5. a
6. c
7. a—Chordal hops are less lossy because of no intermediate contact with the relatively poory conducting surface of the Earth.
8. All—The MUF only has meaning for an entire path, so all of the hops encountered along the way must be able to reflect radio waves of the frequency used.
9. a—The term is derived from the rapid flutter, sounding like a stick being dragged along a picket fence. This is typically caused by a mobile station moving through a region of multiple, reflecting paths. The result is many closely spaced nulls due to destructive multipath interference.
10. c—Ordinary glass does not affect radio signals, while the other three all tend to attenuate them.
11. a—F—Many long-distance modes of propagation are possible at VHF and UHF.
b—F—Similarly, worldwide propagation is supported by ionospheric reflections on 160 meters during the hours of darkness.
c—T—In general, cross-polarization between a signal and an antenna causes significant signal loss at the receiver.
d—T—These strong phenomena often act as large radio waveguides and reflecting surfaces, resulting in excellent DX conditions at VHF and UHF.
12. c—This mode is useful for local contacts on the higher HF bands, where the ionosphere would not be able to provide the necessary vertical reflection.
13. b—On 10 meters, the skip zone can be hundreds of miles, resulting in strong DX signals with a complete absence of local signals.
14. a—This distinctive sound is a DXer's first clue to a long-haul station.
15. d—Lowered ionospheric absorption often allows enhanced signal strength for a short period as lower layers dissipate, while the higher layers remain illuminated by the Sun.

Bonus—1923 (November 27), between 8AB in France and 1MO and 1XAM on the American side of the pond.

EYE BALL with Samy, VU2TX

-by VU2 DX, OM Saif and VU3 IRH, OM Ibrahim.

VU2DX: Hallo Samy, Nice to see you after a long time, how are you? VU2TX: Hallo Saif, Hallo Ibrahim, welcome, Thanks for coming. All well, How are you?

VU3IRH: Nice to see you Samy, It is my pleasure to see one of the oldest hams of our country. Tell us some thing about yourself.

VU2TX: Oh, it is nice to recall the good old memories, I have been a ham since 1960. Got my licence on 1-10-1960, Grade I, and my licence number is 235, Hi!! I was born on 16-11-1932 and I belong to this small village, ERISINAMPATTI, 25 km from POLLACHI.

VU3IRH: Samy, How did you develop this interest in Ham Radio?

VU2TX: During 1958-59 I used to listen to my Radio and one day I heard a "QSO" between two hams. I was able to copy one of them very well. He was VU2AC, OM Rengarajan, who was giving his address to the other ham. I jotted it down but could not get his name except that he is "Alpha Charlie". I hunted for him in ERODE in the Electricity Board offices, asking for one Mr. Alpha Charlie, assuming that he could be an Anglo Indian. Luckily one of my friends could locate Rengarajan who explained to me about ham radio.

VU2DX: Where did you learn cw and when did you appear fort the exam Samy?

VU2TX: I learnt cw from OM Laxman, VU2RL in Coimbatore. There were no monitoring stations and the exam was conducted at Coimbatore Civil Aviation Aerodrome.

VU3IRH: Which was your first rig and who was your first contact on air?

VU2TX: Yes, you can see from my log, my first QSO was on 29-1-1961 with a dx station, VS1CW, on cw on 7040. I used my home brew rig, with 6AU6 VFO and single 807 final and my receiver was BC 348.

VU2DX: Tell me Samy, how did you find the hobby in those days?

VU2TX: It was very exciting as I could contact the whole world sitting in my remote village. VU2 AC, VU2RM and VU2BK used to give me all the support and I was working with my homebrew rig and working lots and lots of dx which you can see from my log book.

VU3IRH: When did you change over to a commercial rig?

VU2TX: I bought a second hand commercial transmitter, KW Viceroy, Mark II , Made in UK and a GELOSO , Italian Receiver, covering 10 to 80 meters. I started working on SSB from 25.1.1965.

VU3IRH: How did you manage the QSLs?

VU2TX: I used to send and receive my QSLs via the ARSI bureau and when I receive QSLs direct, I reply direct too.

VU2DX: Tell us about your family, Samy.

VU2TX: My wife and two married sons and I have four grand children. I am an Agriculturist and I am living in this small village ever since I was born. My Transmitter and Receiver are still going strong and I do small projects on homebrewing and it gives me great pleasure to work with the soldering iron as well as having QSOs with friends on the band. I am on VHF too and I have a homebrew VHF transceiver to work through the VU2KOD Kodaikanal repeater.

VU2DX: Thanks a lot Samy for all the information about you, we are very happy to meet you, an old ham, hope to see you on the band often.

VU3IRH: Yes Samy, I was not born when you came on the band and you are an inspiration to young hams like me. Pleased to meet you and hope to hear you on the band and have a QSO.

VU2TX: It is my pleasure, 73 and all the best and take care.

CLUB PROFILE

Disaster Communication Repeater Club
-VU2RYM

The Hams of Rajapalayam in Tamilnadu formed the "International Radio Communicator's Club" with the call sign VU2IRC in March 1995. There are 60 members amd the Club is affiliated to the ARSI.

The Disaster Communication Repeater Club was formed subsequently by the VU2IRC members to mainly assist the Government at times of natural calamity. During the North East Monsoon between October and December, flash floods occur when Pilavakkal and Kovilar Dams in the district overflow, causing losses of lives and property. The District Collector sought the help of Hams to provide timely communications at such times. The Hams stationed themselves at Dam sites and other strategic locations down river , and by using their own HF and VHF Rigs transmitted data of Dam water levels, outflow of released water, rain fall and other relevant information. With their timely assistance , losses were reduced. Their efforts so impressed the Collector that he recommended to the T.Nadu Government to release funds for a Repeater. A Kenwod Repeater was imported and subsequently with funds collected from members and donations a Duplexer was also imported. Thus the Disaster Communication Repeater Club(DCRC) was formed and the call sign VU2RYM obtained. Later, with financial assistance from MP's special funds, the DCRC procured Handies and Base Stations. The District Colector is the Ex Officio Chairman of the Club and the Superintendent of Police the Ex Officio Vice Chairman. The Members elect their Secretary. Jt Secretary, Treasurer and other office bearers.

Besides rendering assistance to the District Administration during emergencies, the DCRC conducted and RM96 Homebrew workshop in May 2003. On the invitation from the Kerala Amateur Radio League, the DCRC assisted during the 50th Birthday celebrations of Shri Mata Amritanandmayee which had delegates from all over the world. The Club also conducts coaching classes for the local students and Red Cross members for the WPC Exams. They plan to organize Foxhunts and more Homebrew workshops.

KUDOS CORNER

Lets clap for VU2RNC, Ram from Agra for single handedly inducting 26 members of the FON AMATEUR RADIO CLUB, Agra cantonment as ARSI members. Congratulations!

CHECK-IN CONTEST FOR CW NET

Period : 01.08.2003 to 31.12.03 . Timing : 07, 30.08.00 IST. Freq: 7015 KHZ, Certificates and prizes for Top 3 checkins, 50+ and 100 + checkins. The contest is organized to promote CW operation and to create an interest in old timers to use their key agian. Sponsorship and donations for prizes and gifts will be accepted. Net controller is Mr. Rajan Nambiar VU2RJN assisted by VU2DX. Contact Rajan at Kundamveetil, PO Kulapully, Shoranur - 679122. LL-04926220761.

▲ARSI Annual General Body Meeting at Gandhinagar.

▼ JOTA at Shantinagar Highschool, Miraroad, Mumbai. ▲

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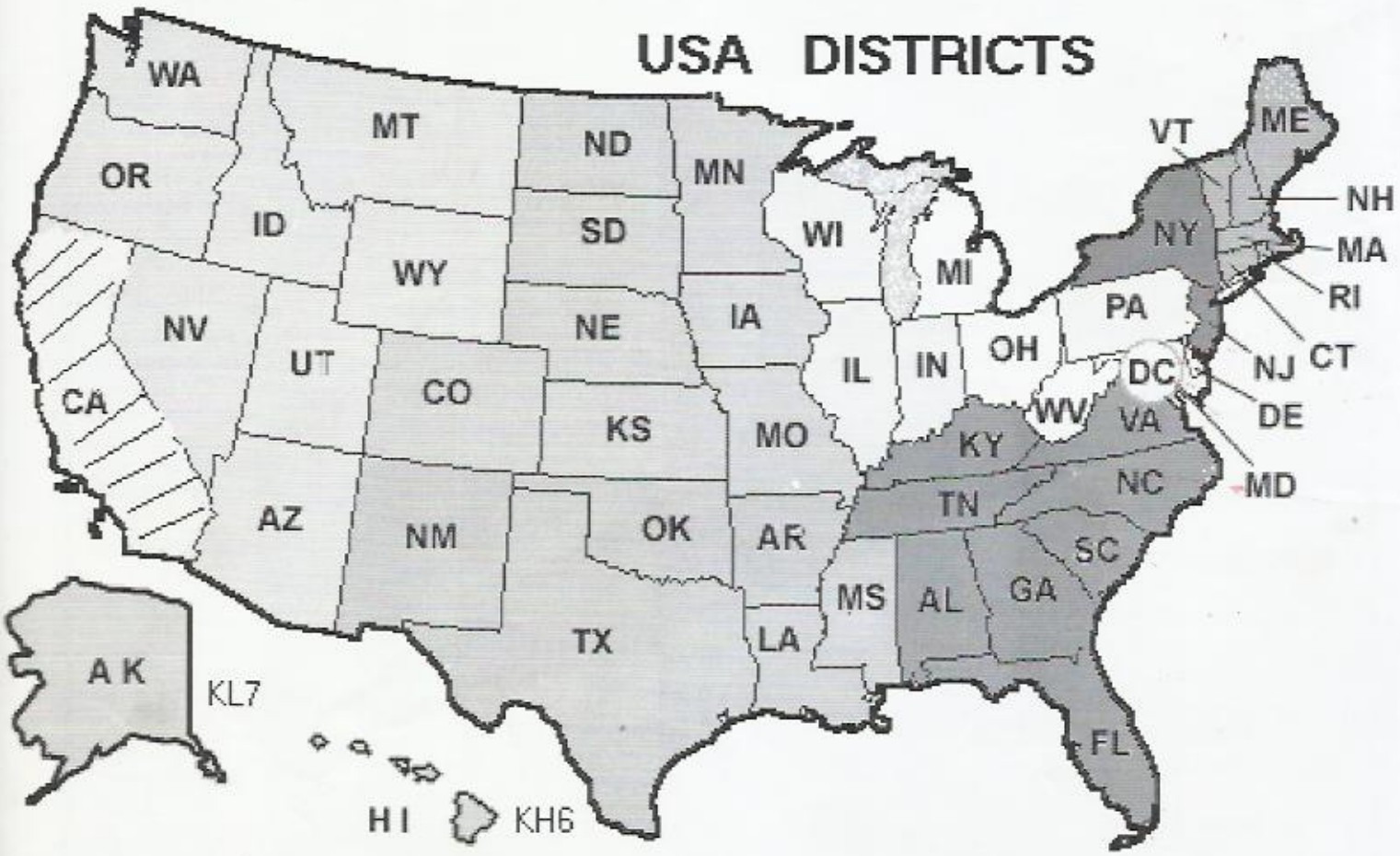

W0 (CO) Colorado ITU 7 Zone CQ 4
W0 (IA) Iowa ITU 7 CQ 4
W0 (KS) Kansas ITU 7 CQ 4
W0 (MN) Minnesota ITU 7 CQ 4
W0 (MO) Missouri ITU 7 CQ 4
W0 (NE) Nebraska ITU 7 CQ 4
W0 (ND) North Dakota ITU 7 CQ 4
W0 (SD) South Dakota ITU 7 CQ 4
W1 (CT) Connecticut ITU 08 CQ 5
W1 (ME) Maine ITU 08 CQ 5
W1 (MA) Massachusetts ITU 08 CQ 5
W1 (NH) New Hampshire ITU 08 CQ 5
W1 (RI) Rhode Island ITU 08 CQ 5
W1 (VT) Vermont ITU 08 CQ 5
W2 (NJ) New Jersey ITU 08 CQ 5
W2 (NY) New York ITU 08 CQ 5
W3 D.C. ITU 08 CQ 5
W3 (DE) Delaware ITU 08 CQ 5

MAP BY AC6V

W3 (MD) Maryland ITU 08 CQ 5
W3 (PA) Pennsylvania ITU 08 CQ 5
W4 (AL) Alabama ITU 08 CQ 4
W4 (FL) Florida ITU 08 CQ 5
W4 (GA) Georgia ITU 08 CQ 5
W4 (KY) Kentucky ITU 08 CQ 4
W4 (NC) North Carolina ITU 08 CQ 5
W4 (SC) South Carolina ITU 08 CQ 5
W4 (TN) Tennessee ITU 08 CQ 4
W4 (VA) Virginia ITU 08 CQ 5
W5 (AR) Arkansas ITU 7 CQ 4
W5 (LA) Louisiana ITU 7 CQ 4
W5 (MS) Mississippi ITU 08 CQ 4
W5 (NM) New Mexico ITU 7 CQ 4
W5 (OK) Oklahoma ITU 7 CQ 4
W5 (TX) Texas ITU 7 CQ 4
W6 (CA) California ITU 6 CQ 3
W7 (AZ) Arizona ITU 6 CQ 3
W7 (ID) Idaho ITU 6 CQ 3

W7 (MT) Montana ITU 6 (excluding Montana east of 110W) (ITU 7 Montana east of 110W), Both are CQ 4
W7 (NV) Nevada ITU 6 CQ 3
W7 (OR) Oregon ITU 6 CQ 3
W7 (UT) Utah ITU 6 CQ 3
W7 (WA) Washington ITU 6 CQ 3

W7 (WY) Wyoming ITU 6 (excluding Wyoming east of 110W) (ITU 7 Wyoming east of 110W),Both are CQ 4

W8 (MI) Michigan ITU 08 CQ 4
W8 (OH) Ohio ITU 08 CQ 4
W8 (WV) West Virginia ITU 08 CQ 5
W9 (IL) Illinois ITU 08 CQ 4
W9 (IN) Indiana ITU 08 CQ 4
W9 (WI) Wisconsin ITU 08 CQ 4

KL7 (AK) Alaska (ITU Zone 1,2 CQ Zone 01)
KH6 (HI) Hawaii (ITU Zone 61 CQ Zone 31)

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