HAM RADIO NEWS

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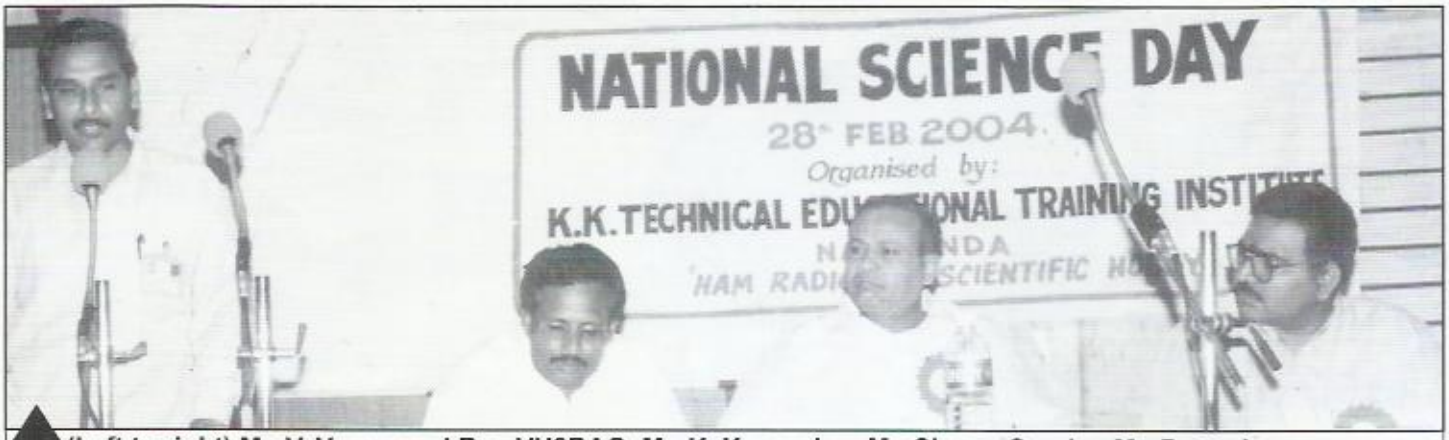
"AMATEUR RADIO - A NATIONAL RESOURCE"

ARSI brings next SEANET and IARU conference to Banglore !



(Left to right) Mr. V. Venugopal Rao VU3BAO, Mr. K. Karunakar, Mr. Shyam Sundar, Mr. Prasad

Mr. V. Venugopal Rao, Mr. Sushil Kumar VU2LFA, Mr. M. Narsingdas SWL, Mr. Sharat BabuVU2RSB

WINNERS OF THE CW CHECK IN CONTEST 2003

1. VU2VNK, Venkat (on the right) receiving the Golden Key Award.
2. VU2ACC, Charles (on the right) receiving the Silver Key Award.
3. VU2LX, Laxman (on the right) receiving the Bronze Award.

Prizes were presented by ***VU2VZ***
Master of Ceremonies - ***VU2RJN***
Looking on is ***VU20VA***

From the President's Desk

Hello everybody,

I hope the beginning of 2004 was a happy one for you. From Day one of being elected as the President of ARSI, I have been a busy man !

First,, I had the opportunity to attend the SEANET HAM conference in MALASIA. Governing Council member Gopal Madhavan, (VU2GMN) also attended this meeting. At the convention, we bid for holding the SEANET conference in India in the year 2005. There was competition from the Japanese delegation. But at the final stages the Japanese withdrew and we won the privilege to organize the conference in 2005.

In February, I went to represent ARSI at IARU at Taipei, Taiwan. Many points regarding HAM activities were discussed and the main points were-

Removal of Morse Test for Amateur Radio License

Increasing the bandwidth in 40meters for amateur use.

Your president has been elected as one of the directors of IARU Region-3 for a period of 3 years. The next IARU Region-3 conference will also be held in Bangalore, India in the year 2006.

Meanwhile, the committee members of ARSI in Bangalore are busy setting up the ARSI office. We have opened an account in the local bank and all future remittance can be sent to ARSI Bangalore. The details are printed in this issue of HRN.

We still have a long way to go and I seek your cooperation. Of utmost importance is to increase the membership of ARSI, which as you all know is the representative body of India in the world forum. Let us all get together and build a sound organization.

73 till next time!

CQ ALL VU HAMS

The ARSI President has been one busy man in the last 3 months. You can read all about it in this issue!! Great going Chandru!! I think all of us must pitch in and make the next Seanet and the IARU Conference a grand success.

VU2AJ, OM Dutt, passed away last month and I shall miss him dearly. He was an achiever who never touted his laurels, and pursued his hobby till his dying day. I hope we have more like him in our small community. He had contributed a sum to institute an award for CW operators, and I am sad that we could not convert his dream into reality when he lived.

Some incidences always happen in our lives when we realize the wonder of the attributes we possess. I would like to share this incidence with you. In my last visit to Pune, I dropped in at the residence of the father son duo, VU2BK, the senior Kabraji and VU2DK, Zal. I thoroughly enjoyed myself in their company and for more than 2 hours I was regaled with anecdotes and stories. I also got to see their shack and antennas. During this entire time, the senior Mrs Zal played the gracious hostess. She didn't speak a word, but made sure I was fed properly and just kept smiling!! A few days after my return to Mumbai, I got a call from Zal saying that she had passed away!! Zal was in deep trauma, but we spoke at length and though we were miles apart, it was a solace. It made me think. How did I become Zal's friend? Through the Radio!!! The Human voice is such a powerful thing! I have met Zal only once but have spoken innumerable times on the radio, and this forged the friendship. Like him I have so many friends with whom I share this very special friendship through the radio. I feel blessed that I am part of such a community!! So the bottom line is, don't be just an SWL, TALK!

World Amateur Radio Day is on 18th April. We must all show the world what we are, by making our presence felt. Send me all your reports and articles about this event. Please remember that the HRN is your magazine.

Once again, Happy Hamming! 73

Sarla

GEM Net World Wide Contest -2004

"GEM" is acronym for General Emergency Medical Net conducted daily on
7.080 Khz at 22.00hrs (16.30 UTC) in India to handle General, Emergency and Medical Traffic.

This contest is to celebrate the World Amateur Radio Day on 18th April, 2004 and 15 years of GEM Net on September 21, 2004 and to popularize it all over the world and help the needy people with Emergency Nets.

Date and Contest Period:
The third full weekend of April,
Beginning 1200 UTC (5.30 pm IST) Saturday and
Ending 1200 UTC (5.30 pm IST) Sunday
April 17-18, 2004
All stations may operate the entire 24-hour period.
for more information visit GEM Net Website
http://www.niar.org/gemnet/

Kindly spread the information through local nets / emails and if youhave any doubt/ suggestion please write to gemnetindia@yahoo.com or vu3rsb@yahoo.com

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.

PAYMENT INSTRUCTIONS

All payments to be made by draft in the name of ARSI payable in Bangalore. If payment is made through cheque, it should be made in the name of ARSI and clearance charges of Rs. 25/- should be added. Money Order can be sent to the above address.

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

From Monday, 9th February 2004, AIR Net India will be conducted at 7.00 pm IST (130 UTC) on 14.150 Mhz.

Contents :

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

I am very pleased to inform you, that I and a few members have started a Radio Club in Nalgonda on the 15th of August 2003. 20 SWLs along with Mr.E.Karunakar, who runs a technical Education Institute and Mr Narsingdas, a teacher by profession are members. For me it was a dream come true. At the inaugural meeting we decided to name the club as The Nalgonda Amateur Radio Club. We decided to hold ASOC exams and also various activities for the improvement of the club and its members. In the Hamfest in Gandhinagar I was appreciated for my efforts and a memento was presented to me by Sri.S.K.Nanda, of GIAR. I was also featured in Doordarshan and other news channels and when I came back, the officials of Nalgonda and Khammam districts threw a small tea party in my honour, which I can never forget.

I take this opportunity to state that Hams should be honoured with momentos and certificates because it boosts their morale. Our club takes great interest in spreading the message of Ham radio by holding demonstrations in Dist level school exhibitions in Nalgonda.

73s, Venu, VU3BAO

Dear Sarla,

The "Handy March" on the cover was great!!

Ankur Puranik(SWL Mumbai)

During a conversation on the lima lima, my very good friend Datta VU2 DSI, from Ahmednagar said that the cover layout of the Gandhinagar Hamfest was not befitting to the father of the nation. I appreciate your feelings Dattaji but HRN just wanted to project the radio through the greatness of the Mahatma!

Like Dutta, I would like all readers of HRN to view the magazine critically and give me opinions, positive and negative, so that every issue can be improved upon.

Dear Sarla,

In the Oct-Dec issue of HRN, VU3WJM's approach was new and he is requested to give the latest info from time to time. Also C MOS power transistors.

73, Vittal VU2VIT

Dear Friends,

According to information in the WPC website

Http://www.dotindia.com/wpcc/teldirectoryi.htm

" for any enquiry related to WPC please send your mails to Mr.R.B.Prasad at dwapwpc@bol.net.in "

New model Renewal Cards are issued by WPC now. Though it looks like the old model ones, the following changes are there. It gives the Ministry's name as "Ministry of Communications & Information Technology" (Earlier it was Ministry of Communications) and its postal address is also given. (In their earlier cards their address was not given.) The new round rubber stamp also reads as "Ministry of Commn. & I.T. New Delhi" in English only. A new Serial No. is also there for each Renewal Card now.

Thanks to OM Sushil, VU2LFA for the info. Different models of Amateur Radio application forms to be sent to WPC are available in his web site: http://geocities.com/vu2lfa/wpc.htm - 73, Jos VU2JOS

The Quilon Amateur Radio League is celebrating the World Amateur Radio Day on 18th April 2004, at Jaladarshini Auditorium, Thevally, Kollam by organizing a Ham Fair 2004 and the VIIIth Kerala VHF Fox Hunt. The major attractions will be special interest groups and a Flea market with wide range of exhibits from various distributors of Amateur Radio. The Delegate fee is Rs.100 per head. The Fox Hunt is open to all Hams and SWLs. For details contact the Quilon Amateur Radio League, P.O.Box No.335, Kollam 691001, Email:qarl@rediffmail.com, ph:0474-2762986,2552749.

Dear Sarla,

I am very much thankful to you for printing my awards in the HRN. However there are a few things I would like to bring to your kind attention. 1.In the list of awards, the A1 OPERATOR award was not listed, maybe due to oversight. This is a very prestigious award and considered as the highest achievement by any Ham in the world. This award was given to me by ARRL for the first time in India. I want all VUs to improve their operational skills and qualify for this very important award. I would be thankful if you could make a mention of this award in the next issue. Information of the various awards received by me has been printed a long time ago in CQ, QSL , ARRL and other International Magazines. Secondly the photo printed is also unrecognizable, and many of my friends on the air have asked for a better photo!!Hi!! So could you also print the photo of me which I have sent? I would also be happy if my address were printed too so that Hams who are interested in pursuing awards can write to me for any info they require. Congrats on a good magazine!! Suhas, VU2SMN

HRN apologises for the oversight. About the photo, I made use of the photo available with me at the time of printing. So here is the new one! SMN's Address is Mr.Suhas Samant, Hindustan Trading Corporation, Laxmipuri, Kolhapur 416002.

A1 Operator VU2SMN

WORLD AMATEUR RADIO DAY
18TH APRIL 2004

POLLACHI Amateur Radio club hosted the function of Award distribution to the cw operators on ham radio on 11.1.04 at 12 noon at KKG Kalyanamandapam. About 30 hams from Pollachi and other places in Tamil Nadu, Karnataka and Kerala attended the function. Pollachi club President , Arusamy, VU2TX, one of the oldest hams in Tamil Nadu presided over the function and VASUDEVAN, VU2VZ, 78 years old, an ex serviceman and a professional cw operator was the chief guest. The function started with a silent prayer and the club secretary welcomed the gathering and RAJAN, VU2RJN from SHORANUR who was the chief Net controller, for the cw net contest which was conducted from 1.8.03 to 31.12.03 continuously for 153 days, explained about the contest and its purpose and the results of the winners. The Chief guest spoke about the olden days when cw was the best means of communication. Mr.Vijayan, an active member of the club, and the secretary to the Ham club in Nachimuthu Polytechnic, proposed the vote of thanks. After a nice lunch the hams disbursed after a nice long eye ball (chit chat) at the venue. The function was a real success due to the combined effort of the Pollachi Amateur Club members. National Anthem was played at the end.

AGRA. "FON Amateur Radio Club" in the cantonment area was inaugurated by Brig. (Retd.) Y.Narula on 22nd Nov.2003 in the presence of Lt.Gen.V.K.Dhir (DGEME), Maj.Gen.(Retd.)R.K.S.Bhatia , Comdt. 509 Army Base Workshop Brig.A.K.S.Chandele, Col.S.K.Mishra, Col.A.K.Das and the president of Agra Radio Club, Dr.Mukesh Chandra(VU2MCC) etc. On this occasion there was a Ham radio demo by the FON Club Members and the active members of the Agra Radio Club, like VU2RNC, OM Ram and VU2MCP, OM Pippal who demonstrated the working of HF and VHF sets. Some good books of amateur radio and magazines related to this hobby were exhibited along with a new home brewed VHF radio set. More than five hundred workers and officers attended the function. A small book containing a brief history of ham radio edited by Lt.Col.N.R.Maggo was distributed to all the officers there along with a small power point presentation. The members of this club are all set to give the exam for their licences. Under the able guidance of Maj.Gen.A.K.S.Chandele and the untiring efforts to spread the message of this hobby by Maj.Gurudev Singh, Mr.Prem Babu(CASO) and Lt.Col.G.B.Singh, this club is doing its best to popularize Ham radio among army personnel in Agra.

LUCKNOW Hams were called by programme organizers of the 11th National Science Congress held from 27th Dec to 31st Dec.2003 to give a demonstration on HAM Radio for the benefit of participants. The participants were astonished on hearing a QSO between VU2WAP and a Ham from Columbia. Some participants from Chennai and Gujarat showed great interest in this field. They were very curious to find out about hams in their locality. The role of Amateur Radio during disasters was emphasized. OM Rahul, VU3WJM, OM PANDIT, VU2DCT, OM Nikhil, VU3NRI, YL SANGITA, VU3SGT - visiting Ham from Barauni (daughter of OM Madan Mohan Prasad VU2MMP), OM Mansukh, VU2MOJ - Visiting Ham from Gujarat participated in this event.

To commemorate the National Science Day, tthe Council for Science & Technology for U.P. State organised a function on 26/27 Feb.'2004 at Vigyan Bhawan, Suraj Kund Park, LUCKNOW-226018 in which many programmes were organized. More than 300 students from various school / colleges participated. The event was inaugurated by Chief Secretary of U.P. State Council for Science & Technology, Lucknow. He spent his valuable moments at the HAM Radio stall. Many journals of different Ham radio Organisations were also displayed during the programme. The Secretary HAL Scouts Amateur Radio Club, VU2LKO delivered a lecture on 'Ham Radio in Education' to boost the scientific temperament and to popularise the HAM Radio activity among students at the State Council for Science & Technology auditorium. VU3PBC, OM Pati and VU3NRI, OM Nikhil participated in a VHF demo.

MUMBAI Amateur Radio Society conducted the 3rd foxhunt on the 25th and 26 th January in the foot hills of Lonavala and Khandalla. 40 participants split into 17 teams took part in 4 foxhunts spread over 2 days. The foxhunt was conducted in a different way this time. All the team members boarded one luxury bus that would drop of all the teams one by one according to their drop off number they picked from a pack of playing cards (e.g. 1 to 17) at a distance from each other. Then at a predermined time, freq. and time limit the fox would transmit and they had to hunt the fox down. After hunting the fox down the team members headed to the same drop point and were picked up by the bus on the return route. The 1st fox hunt winners were) Vu2ugj (mukesh jaitley) and Priya golapkrishna 2) abhay shah and A Shivamanikan 3) Vu2nfs and rajesh sethia . The 2nd fox hunt winners were 1) Vu2ugj (mukesh jaitley) and Priya golapkrishna 2) Vu2mwh (anantha more) and Rishkesh kamat 3) arun singh and rajendra pillai. The 3rd Foxhunt winners were 1) Vu2sfn (Sailesh pradhan) and labesh more 2) ankur puranik and deepa ganesan 3) Vu2nfs nafisa shikari and rajesh sethia and shyam kapadia and zyraa zend (age 6). The 4th Hunt was won by 1) Vu2sfn (Sailesh pradhan) and labesh more 2) Vu2nfs nafisa shirkari and rajesh sethia and shyam kapadia and zyraa zend) 3) Vu2mwh (anantha more) and Rishkesh kamat. Vhf direction finding antennas were supplied to the members by MARS club.

The annual intercollegiate technical festival at IIT KANPUR was held from 26th to 29th February. Over the years it has become one of India's largest Sci Tech events. There was a huge participation from both academia as well as industry.More than 100 colleges from all over the country participated in this festival. The four day festival covered lot of activities and events like model making, paper presentation, lectures and workshop, software, robotics, astronomy, electronic circuit design, marketing, structure making, quiz and entertainment. IIT Kanpur also has a HAM club VU2IIT under charge o f Tushar Mittal and support from faculty members like Prof Harish an old timer. Many of us were requested to assist and manage the events related to HAM radio. HAMs who participated in this events events were: Delhi: VU2YI Sanat, VU3FUN Rajesh, VU3BPA Arun. Lucknow: VU2DCT Pandit, VU3NRI Nikhil, VU3WJM Rahul, Siddharth Son of VU3WJB The activities conducted were a) Lecture - Radio technology and construction techniques. by VU3WJM. B)Interactive multimedia presentation on HAM radio by VU2YI. C)Workshop : Construction of 20 Meter superhet receiver TK24R designed specially for the occasion by VU3WJM.Construction of 3 element 2 meter portable yagi.d): Demonstration : Implementation and use of micro controllers. BY VU3BPA. E)Radio operating HF and VHF managed by VU3FUN and VU2DCT. F) Fox hunt conducted by VU3FUN, VU3BPA and VU2DCT. Fox VU3FUN transmitting from a temple half a KM from start point was tracked down by participants in 40 mins.

The Nalgonda Amateur Radio Club, along with NIAR held a Ham radio demonstration on 28th February 2004 to commomerate the National Science Day. More than 200 people of Nalgonda town attended the function and were enlightened about Ham radio as a hobby. The demo was very successful and many showed an interest in joining the club.

SEANET 2003

The SEANET covering South East Asia and Pacific region from New Zealand to Pakistan was started in the year 1964. This net is conducted everyday at 12.00 UTC on 14.32 mega cycles on the 20-meter band.

The SEANET convention started in 1972 when the first convention was held in Penang Malaysia. After that the convention has been held every year in different countries. In 1996 the SEANET convention was held in Chennai and was great success. This year the 31st SEANET convention was held at Johor Bahru Malaysia, from 20th to 30th of November there were a little more than hundred delegates from many countries of south Asia Pacific nation. There were also delegates from Germany America, Mexico, England. Malaysia, Thailand and Australia had biggest number of delegates. India was represented by four namely VU2GMN, VU2DAS, VU2OEL Mrs. Shaila and VU2RCR President ARSI.

9M2KN Dr. Singh, who as the convener, organized the program. This year's convention was sponsored by the tourism department of Malaysia and other industries located in Johor Bahru. The delegates were entertained by visiting many places of interest in and around Bahru with lavishly laid out lunches and dinners.

The place for holding SEANET convention is decided two years in advance. The next convention in 2004 will be held in Thailand. On the 30th of November, during the closing session the venue for the year 2005 was to be decided. We from India bid for the same and the voting ended in a tie with Japan and India getting 24 votes each. At this point before their chairman could give his decision the Japanese delegations withdrew their bid and the SEANET convention for the year 2005 was allotted to Bangalore in India. We hams in India have two years to prepare and with the co-operation of all we can have a grand convention.

Report on the Regional Conference of IARU Region 3

International Amateur Radio Union (IARU) is a statutory body of the International Telecommunication Union (ITU). IARU represents the Amateur Radio Operators (HAM) at the international venue. The ITU has divided the world in to three regions for Administrative and other maters.

Region 1 consists of Europe (including countries of old USSR and Mongolia; All the countries of West Asia with out Iran; all countries of Africa. Region 2 consists of North and South America and Caribbean Islands. Region 3 consists of From Iran to Japan and Pacific Islands Australia and Newzeland. It was started in the year 1971 in Tokyo Japan and the secretariat of IARU region 3 is situated in Tokyo Japan

The region 3 conference of the International Amateur Radio Union met in Taipei, Taiwan from the 15th to 20th of Feb. 2004. The China Taiwan Amateur Radio League (CTARL) was the Host to this conference. Out of the countries in this region, 30 have become members. Out of this 30, 24 countries were present at the Regional conformance held in Taipei. 17 by Delegates and 7 by proxy vote. The Amateur Radio Society of India represented India at the conference as it is the only society recognized internationally on the basis of one society per country.

There are 5 directors for the region 3, who administer the region between conferences. The last conference elected 5 directors one from each of the fallowing countries Japan, South Korea, Australia. Singapore and India. It is the first time that an Indian has been elected to this post. Directors are elected for a period of 3 years at each conference. During this year's conference Ramchandra's name was proposed for the post by delegates form Singapore and seconded by delegates from Honkong. Ramchandra got 13 votes and was equal to the delegate from Newzeland. In re-balleting, Ramchandra got 13 votes where as Newzeland delegate received only 10. So Ramchandra was elected as one of the 5 directors of this region. The directors meet once in a year to discuss the HAM activities of this region. This year's get together will be in Tokyo from 19th to 22nd of August 2004.

At the conference many points affecting the working of Amateur Radio Operators (Hams) was discussed and recommendations have been made to member Societies. These recommendations were discussed with International Telecommunication Union (ITU) and were approved in 2003. Though there is an international agreement it is up to the individual Governments to accept them in total in parts or not at all. Therefore the facilities that Hams in a particular country can get depends on the relation between the national Society and the Department of the Government dealing in this matter. (WPC).

The next conference of IARU will be held in Bangalore, in November 2006 and ARSI will be the host.

AWARDS INFO

USKA proudly announces new awards. They are published in 2 basic disciplines, one for the HF bands, and the other for the VHF (inclusive of SHF and UHF) bands. Requests for the new diplomas can be submitted from now on; contacts for the new diplomas are valid starting 01 January 2002. For the detailed rules and the layout you may have a look at:

http://www.uska.ch/html/en/contest/h26dipl.html

The best opportunities are the Helvetia-Contests:

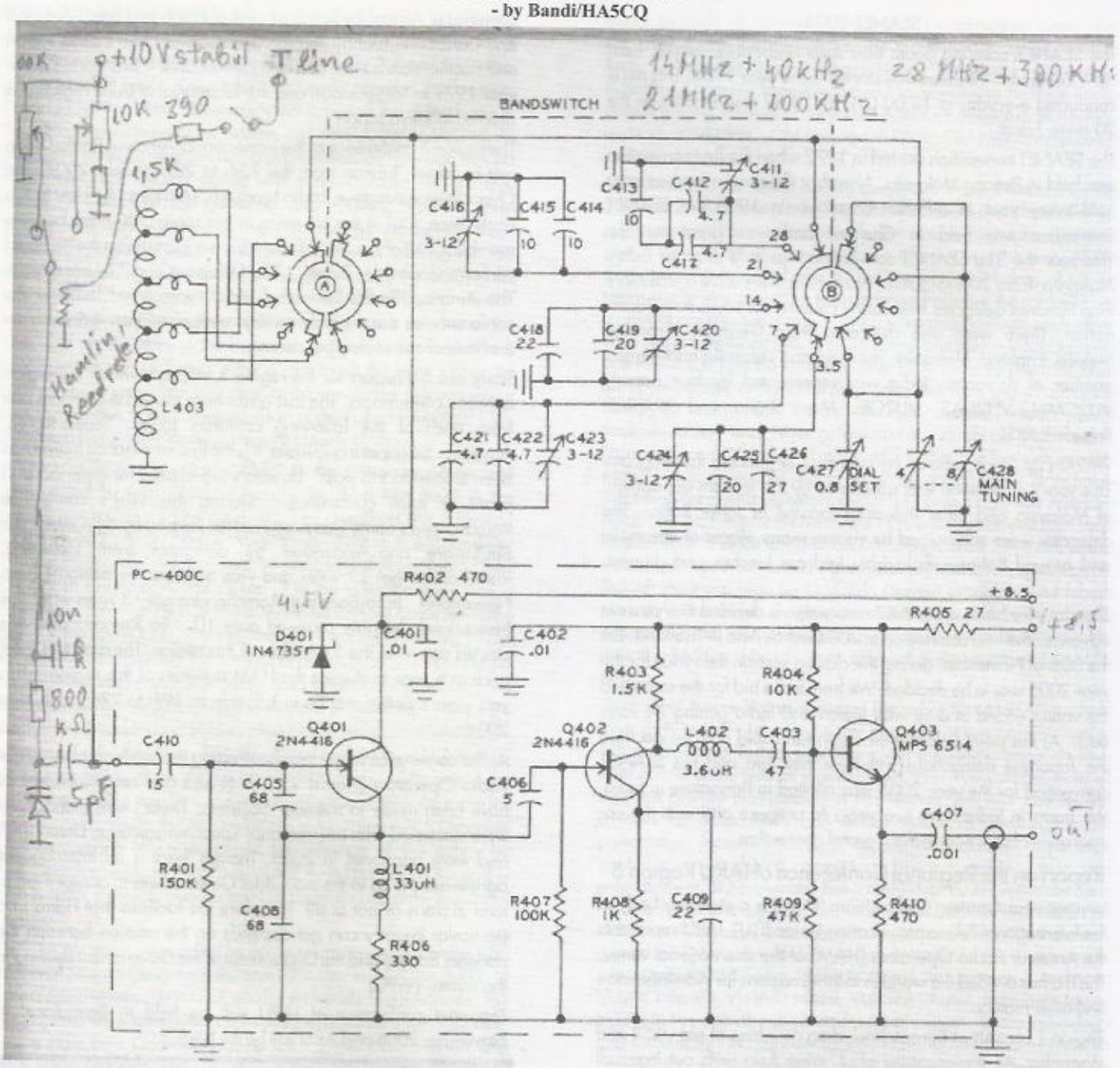
HF: last full weekend in April; Saturday 1300 UTC until Sunday 1300 UTC. VHF: first full weekend in July, Saturday 1400 UTC until Sunday 1400 UTC. Awards manager:HB9mx@uska.com

POPULAR AND INTERESTING NETS

TIME(IST)	FREQUENCY	NET
0700 to 0800	7.080	Charminar Net
0715 to 0800	7.050	Belgaum Net
0745 to 0815	7.015	CW Net
0800 to 0830	7.040	KARL AM Net
1730 to 1800	14.320	S.E.A.Net
1830 to 2000	7.025	Indonesian CW Net
1930 to 2000	14.150	Air Net
2130 to 2145	7.090	Malabar Net
	SUNDAYS	
0800 to 0830	7.070	Sat Chat Net
0830 to 0900	7.085	BC DX Net
1630 to 1700	14.150	Hamfest India Net

5 BAND VFO FOR GE 524

- by Bandi/HA5CQ



This VFO delivers 1V output into a 50 ohms load. The circuit works fine up to 33 MHz. The coil is made on a ceramic coilform, diameter is 25 mm, the coil length is some 40 mm, the silver galvanized, copper wire diameter is 1.5 mm and the connection (tap) for each band is to be selected experimentally. The small series coils are made of 0.8 mm enameled copper wire, one layer, 4 mm inner diameter, approx. 6 to 8 windings depending on the operating frequency and used to adjust the band coverage (because you can change the main coil inductance in one winding steps) with the associated trimmer capacitors. Varying the length of these small coils and turning the trimmer capacitors you can adjust the frequency to be in accordance of he same scale.

There is an additional circuit drawn by me that enables transmit shift using a varicap and a reed relay that works in case of starting the transmitter (T line means a supply voltage during key down to activate the relay and shift the transmit frequency).

The VFO requires a stabilized supply voltage that can be between +8.5 to +12 volts. In case of higher supply voltage the output signal level is a little higher but it does not infuence the correct operation.

(Continued on page 13)

The 2003 World Radiocommunication Conference (WRC-03) may have eliminated the treaty requirement for prospective amateurs to demonstrate Morse code proficiency to gain HF access, but the International Telecommunication Union (ITU) hasn't forgotten Morse code altogether. In Geneva on December 5, the ITU Radiocommunication Sector (ITU-R) Study Group 8 agreed on the wording of a Draft New Recommendation ITU-R M.[MORSE] that specifies the international Morse code character set and transmission procedures. It also includes a new Morse code character to cover the "@" symbol used in e-mail addresses. Once it's made available in English, French and Spanish, the draft new recommendation will go out to ITU member-states using a new procedure for simultaneous adoption and approval. On December 3, the draft new recommendation won the approval of Working Party 8A, which is responsible for the Land Mobile and Amateur services. Within the ITU, the international Morse code has been defined by the Telecommunication Standardization Sector (ITU-T), which is responsible for the public telephone and telegraph network--mostly landline. A couple of years ago, the ARRL pointed out to the US delegation to the ITU Radiocommunication Advisory Group that Morse code's role more properly resides in the radiocommunication realm, not wire, and should be the responsibility of ITU Radiocommunication Sector (ITU-R).

The transfer was agreed to, and International Amateur Radio Union (IARU) President Larry Price, W4RA, proposed the draft new recommendation at the November-December Working Group 8A meeting. The draft new recommendation is almost unchanged from its ITU-T text.

"No one wanted to disturb something with more than 150 years of history," said ARRL Technical Relations Manager Paul Rinaldo, W4RI.

To keep up with the times, however, the IARU proposed adding a new character--the commercial "at" or @ symbol--to permit sending e-mail addresses in Morse code. The draft new recommendation proposes using the letters A and C run together (.--.-.) to represent the @ symbol.

While the draft new recommendation is still a working document, its expected to become a Recommendation within six months or so, pending approval by member-states.

Amateur Radio Assists in Iran Earthquake Relief:

Turkey Amateur Radio Club President Aziz Sasa,TA1E, reports that three Amateur Radio operators joined the Turkish Relief Team that departed for the incident location--the city of Bam, some 600 miles south of Tehran--from Istanbul December 27 aboard a military aircraft. Local communications will be carried out on 2-meter simplex with HF operation on 14.270 MHz during the day and on 7092 kHz or 3777 kHz during hours of darkness. Soyhan Erim, TA2IJ, will handle HF operations at the Turkish Incident Command Post. He is part of the Ministry of Health team. Erdinç Sarimusaoglu, TA2RJ, is part of the AKUT Search and Rescue Team, while Mustafa Yuceturk, TA1CAN, is a member of the Istanbul Civil Defense Search-and-Rescue team. Also on site is Serdar Demirel, TA2NO, a member of the Ankara Civil Defense SAR team, who arrived earlier.

The theme for World Amateur Radio Day 2004 is "Radio Amateurs: Pioneers in Bridging Barriers to World Understanding." Commemorating the anniversary of the founding of the International Amateur Radio Union (IARU), World Amateur Radio Day takes place each year on April 18. This year, the IARU marks its 79th anniversary. The 2004 theme is intended to emphasize the IARU's long history of bringing people together across geographic, cultural, and political barriers. Created in Paris, the IARU has been the watchdog and spokesman for the world Amateur Radio community since 1925. The worldwide federation of national Amateur Radio organizations represents some three million radio amateurs in 159 countries.

The ARRL will ask the FCC to create a new entry-level Amateur Radio license that would include HF phone privileges without requiring Morse code test. The League also will propose consolidating all current licensees into three classes, retaining the Element 1 Morse requirement--now 5 WPM-only for the highest class. The ARRL Board of Directors overwhelmingly approved the plan January 16 during its Annual Meeting in Windsor, Connecticut. The proposals--developed by the ARRL Executive Committee following a Board instruction last July--are in response to changes made in Article 25 of the international Radio Regulations at World Radiocommunication Conference 2003 (WRC-03). They would continue a process of streamlining the amateur licensing structure that the FCC began more than five years ago but left unfinished in the Amateur Service license restructuring Report and Order (WT 98-143) that went into effect April 15, 2000. "Change in the Amateur Radio Service in the US, especially license requirements and even more so when Morse is involved, has always been emotional," said ARRL First Vice President Joel Harrison, W5ZN, in presenting the Executive Committee's recommendations. "In fact, without a doubt, Morse is Amateur Radio's 'religious debate.'"

The entry-level license class--being called "Novice" for nowwould require a 25-question written exam. It would offer limited HF CW/data and phone/image privileges on 80, 40, 15 and 10 meters as well as VHF and UHF privileges on 6 and 2 meters and on 222-225 and 430-450 MHz. Power output would be restricted to 100 W on 80, 40, and 15 meters and to 50 W on 10 meters and up.

"The Board sought to achieve balance in giving new Novice licensees the opportunity to sample a wider range of Amateur Radio activity than is available to current Technicians while retaining a motivation to upgrade," said ARRL CEO David Sumner, K1ZZ. Under the ARRL plan, current Novice licensees--now the smallest and least active group of radio amateurs--would be grandfathered to the new entry-level class without further testing. The middle group of licensees--Technician, Tech Plus (Technician with Element 1 credit) and General--would be merged into a new General license that also would not require a Morse examination. Current Technician and Tech Plus license holders automatically would gain current General class privileges without additional testing. The current Element 3 General examination would remain in place for new applicants. The Board indicated that it saw no compelling reason to change the Amateur Extra class license requirements. The ARRL plan calls on

A SIMPLE LOW COST WIRE BEAM ANTENNA FOR 20 METERS
- by ALEX CHANDY VU2TXZ

A SIMPLE LOW COST WIRE BEAM ANTENNA FOR 20 METERS
As built by ALEX CHANDY VU2TXZ(Due to a printing error, this article was incomplete in the last issue)

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

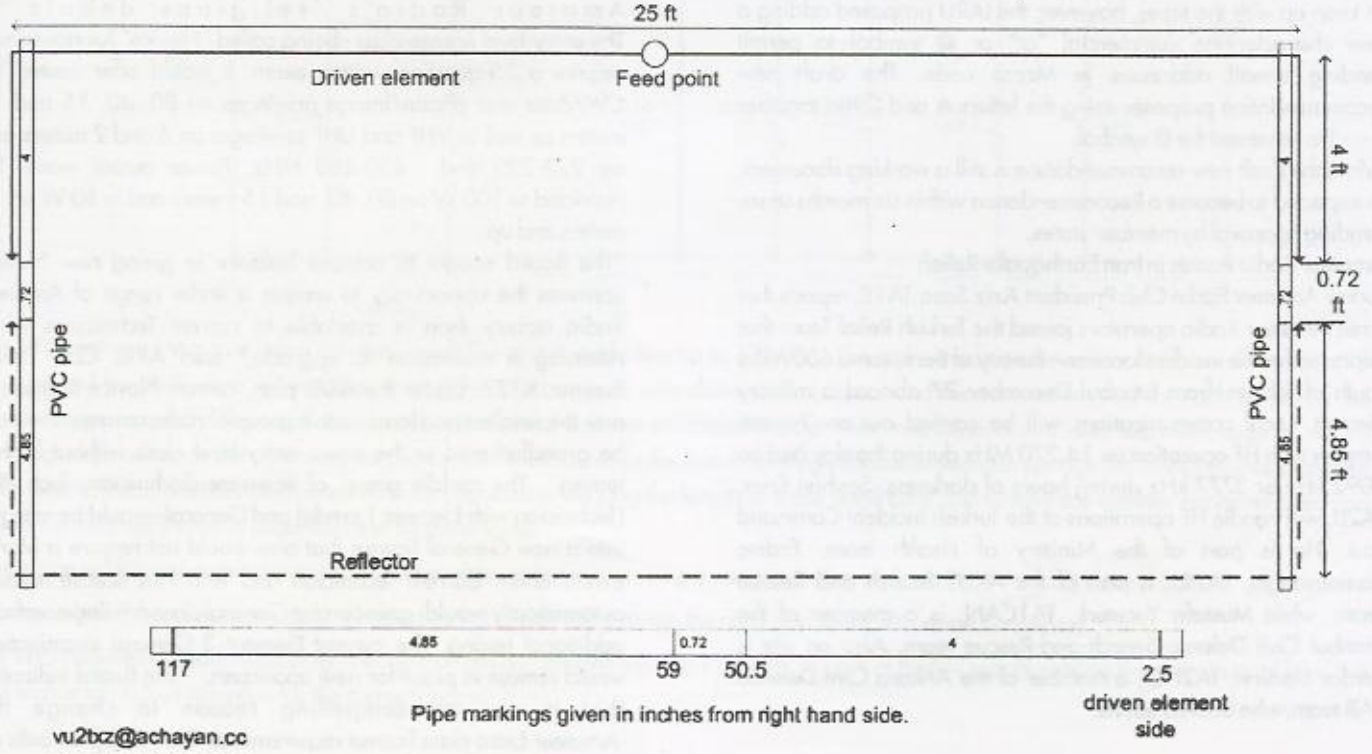
1 inch dia rigid PVC pipe 2 nos.

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.

vu2bxz@achayan.cc

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. In order to hold the limp copper wire in a rectangular shape, there has to be some sort of a rigid member on opposite sides of the rectangle. Since the Moxon design forms a rectangle 25ft x 9.57ft at 14 MHz, it is easier to make the shorter side as the rigid member. PVC conduit pipes available in electrical stores come in lengths of 10ft - which is ideal for our purpose. If the conduit pipes are not rigid enough, PVC water pipes can be used but these may cost more.
Get two lengths of rigid 1" PVC pipes. Drill 2 parallel holes, 9.57 ft apart in each pipe, to pass the two wire elements. (In my case I drilled 4 holes in each pipe in order to anchor the ends also. I now feel that simply taping the ends with electrical insulation tape will do a better job than anchoring it with lugs, especially when it comes to trimming the antenna). Mark one end of each pipe permanently so that you will be able to identify the driven element side from the reflector side. The marked end should always carry the driven element. Make two permanent circular marks around the pipe at 4ft and 4.72ft from the hole drilled for the driven element.
Slip the driven element through the hole near the marked end. Pull sufficient length of wire to reach the first of the two marks (4ft). Tape the wire end to the PVC pipe using electrical insulation tape. Repeat same process with the reflector element using the second hole in the pipe and tape the wire end to the second mark. Bear in mind that the distance between the ends of the driven element and the reflector is very critical. As mentioned in the design notes - it must be 0.72 ft.
Repeat above procedure for the second pipe. Fit the insulator at the center of driven element and solder the feeder. (In my case I have offset the feed-point by about 2 inches - ie one half the driven element is longer than the other by 2 inches in order to achieve a broader bandwidth).
Since the wire will have kinks in it, you will find that the length you cut will mostly be on the longer side. This is good since you can slowly trim the antenna for proper resonance. This trimming is not necessary if you are using the antenna for Rx only. In my case the initial SWR was acceptable below 14.100 and went above 3:1 at 14.300 indicating that the elements were on the longer side. Cutting off 1 inch at a time, I was able to finally trim it down to obtain a perfect match from 14.000 to 14.330 and an SWR of less than 1.25:1 at 14.350. Please note that after each trimming, you have to pull the end of the wire to rest exactly on the circular marks, as it is very essential that the distance between the ends of the driven element and the reflector should always be 0.72ft (~8 inches).
The Moxon was strung up horizontally between 2 supports by attaching ropes to the 4 ends of the PVC pipes. Two ropes on either side of the rectangle were tied to its corresponding support. My antenna has been in place for about 6 months and is doing a fine job of pulling in DX.
So have fun with this little marvel that packs a punch at a price just a wee bit more than the cost of a dipole.
PS: Rotatable Moxon Rectangles constructed out of Aluminum tubing have started appearing in the market recently. At least two commercial manufacturers have come out with such models.
(This article was compiled from a series of postings by the author at VU2Q8, a Yahoo Group for the VU hams living in Kuwait).

WORKING THE AMATEUR SATELLITES

- (VU2GMN, with help from VU2POP)

The normal impression one usually has about working via satellite is that it is something mysterious and very complex. Nothing could be further from reality. The present lot of LEO's, or Low Orbiting Satellites, require very little equipment and resources. They are all on FM and so the usual dual-band VHF/UHF hand-helds that many Hams have, are sufficient. Or if you already possess VHF handy and can't afford a Dual or twin band handy, just go in for a separate UHF Handy. The antenna is also not very complex and most of the Hams use a form of home-brewed dual band antenna called the Arrow, with both the VHF and the UHF elements mounted on the same boom, at right angles to each other. Dual-band quads made of copper or aluminum wire mounted on a PVC pipe are also easy to build. The antenna is hand-held and pointed like a stick or wand.
Some form of tracking program is required to let you know when your favourite satellite is in view of your QTH, and in what direction. A number of free-ware programmes are available on the internet and most people nowadays do have a computer anyway for e-mail etc. The simplest computer will do. Or, you can get in touch with any other regular Satellite operator to get the pass timings printed and mailed to you once a month. It is then a question of pointing the antenna in the direction indicated by the tracking programme and working via satellite, with the frequencies of that particular bird. One can use sophisticated hardware/software combinations with sensitive antennae which will automatically follow a satellite's orbit through the sky, but it is really not required.
Of all Sats, LEO'S are most popular for beginners and regulars to get on easily from even on the road with a VHF/UHF handy. It's just like your local repeater in the Sky and it generally has 2-3 passes in the morning and 2-3 in the evening. LEOS have a footprint of about 4500 kms. Imagine the excitement working Singapore, Malaysia, Thailand, Indonesia, Taiwan, Ukraine, etc on your FM handy! Some too complain that its boring to wait and watch for the Sat pass but at the same time they don't mind waiting to check-in to a local VHF net just to say "Good morning QRU, 73 "!
In VU land Hams have been working the sats for years now. VU2RM, VU2UV, VU2DVP, VU2CVP, VU2TS and a number of others have worked the earlier satellites with simple home-brew equipment. There are now a host of others who are regular on the sats, both the high-orbit ones like AO-40, and the LEO's like UO-14, FO27, FO29, AO-7, and SO50.
VU2MKP, VU2RM, VU2POP, VU2IR, VU2RMS, VU2GUR, VU2LX, VU3SXE, VU2GMN, VU2JMN, VU2SBU, VU2BD and others can be heard on the sats regularly. The list is growing rapidly as more and more Hams find out that there is nothing mysterious about satellite working-just a lot of patience and skill that comes with practice. If you need any help and assistance, contact any of the above regulars on Sat and they will be very happy to help you thro'.

SATELLITE NEWS - Rick Johnson, KA9VZD

On the 1st March the UO-11 ham radio satellite, which is also known as UOSAT 2 will have been in space for two decades. To mark the event, AMSAT-UK will be issuing a commemorative QSL card in exchange for listener reports from stations hearing the signals during the month of March. The reports must be made by way of the reporting page on the web site and the QSL card will be in the form of a downloadable "E-QSL".
By way of background, UO-11 was the second satellite to be launched by Martin Sweeting, G3YJO's, group at the University of Surrey in here in England. Its telemetry beacon can still be heard on 145.825 MHz FM using nothing more than a handheld 2 meter rig. There is also a 2401.5 MHz beacon but signal is not very strong and represents quite a challenge. Depending on the status of the satellite, it sometimes goes into 'safe' mode, and the beacon transmitters are not activate for days at a time. Because of this, University of Surrey ground station controllers will attempt to maximise the number of days the transmitters are active during the month of March.

(Continued on page 13)

VHF RECEIVER FOR MONITORING HAM ACTIVITY (FOR 2M band)

A beginer's Project By: Ankur S. Puranik, SWL .

Required for this project: A FM radio with digital readout, a gang condenser, a couple of small pieces of wire, a soldering iron, etc.

Introduction: This is a very simple to construct project. Since you are already using the ready-made FM receiver you do not have to bother much about the receiver construction. What we are going to do here is simply modify the FM receiver. These receivers are easily available anywhere for around Rs. 300 or less. These receivers are available under the brand name Kchibo, Ultratec, Nokina and many more, all work well with this modification. These receivers also have other bands like short wave, medium wave bands. We are only concerned with the FM band as of now. You can use any ordinary FM radio, but I suggest the one with Digital frequency display because it actually helps you to see what frequency your receiver being tuned to and a digital display is anytime better than an analog one. A gang condenser (picture shown below) will cost you around Rs.10/- . You can obtain one from any radio repair shop or even use one from any old radio receiver.

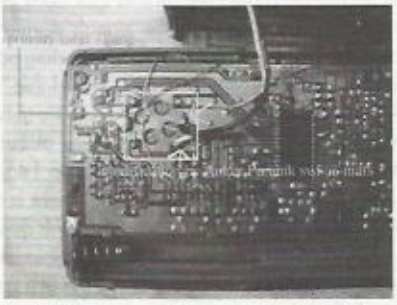
We all know that an analog radio receiver has a Gang condenser, in short a rotary type variable capacitor that is used to tune into a desired station. Now this gang condensers value varies in pico-farad range.

Each band of the radio i.e. AM , FM & SW use different terminals of the gang for the tuned circuit.

Generally a simple gang has 6 terminals , 3 on one side and 3 on the other. Out of these 3 terminals the middle one is common terminal, that's terminal "C" as shown in diagram. FM tuners use the 2 terminals out of the total 6 terminals present on the gang. (other terminals are used for other bands like AM , SW, etc.)

You can use any one terminal with the common terminal. That's terminal A or B with terminal C.

Below shown is what's inside the radio, and where are you supposed to make connections. Please note the 2 points marked in yellow arrows. These are the points that are generally being used for FM band.



Now to confirm that these are the points, tune into a station, and touch the terminals with your finger (do not short the two terminals with a wire or a screw driver), you will see that the station disappears. Now this happens because your finger changes the resonance of the tuned circuit.

This is the key point on which the whole project is based. We are going to add an external element (secondary tuner) to vary the capacitance between these two points in addition to the internal gang condenser, (Primary Tuner) which is already present in the radio. Now we begin the actual work.

1) Take a small piece approx 5 6 inches of twin wires and solder them to the 2 points of the primary gang indicated with 2 arrows in the diagram. (pls confirm the points by the test stated above.)

2) Solder the other end of this twin wires to points A and C OR B and C of the external gang condenser.

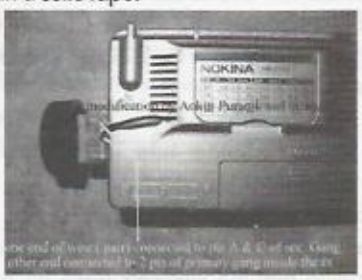
3) Now your receiver is all ready to monitor ham activity in the 144-148 Mhz band

4) Here is the coverage of the receiver a) 44.0 Mhz to 71.3 Mhz b) 117.0 Mhz to 153.4 Mhz. Your range may vary slightly depending on your type of Rx and ur way of arranging the secondary gang.

For coverage between 44 to 71 Mhz tune your primary gang to minimum and then vary the secondary gang.

For coverage between 117 to 153 Mhz tune the primary gang to maximum and then vary the secondary gang.

5) Please do not use a very long piece of wire this will only make your rx frequency unstable, also keep the wire in a fixed position, may be fix it with a cello tape.



Please note that this radio is modified out of cheaply available receiver so it will not work as well a professional receiver and will not be able to pick up far-off weak stations. The receiver is designed for wideband (broadcast stations) and not narrow band reception, so you will be able to receive only near by stations. If you use an external outdoor antenna you will get better reception.

6) Now mount the external gang on to the radio wherever convenient, see to it that it does not hang down from your radio as it will lead to instability

7) Now power your receiver ..... Tune in !! n Enjoy.!!

(Continued on page 13)

EQSL - THE FINAL COURTESY

- by Dave Morris, N5UP, Founder and Webmaster, eQSL.cc February 5, 2001

The world's first and only eQSL exchange centre, www.eQSL.cc, started the year 2001 with a bang. Only a few weeks earlier, on the first of December, it had blown through the 1 million card mark, and now 2 million cards were in the central database. But instead of slowing down, the rate increased as thousands of eQSL cards were uploaded every hour.

The eQSL.cc site was launched in April of 2000, and included about 1500 hams who had been part of an earlier experiment in an electronic QSL card exchange. The "big" idea was that eQSLs should not be sent around from person to person via e-mail, but should be available at any time through a web-based exchange system and a central database.

Other concepts using e-mail or by posting one stock QSL card on a web page and calling it an eQSL were not satisfactory, because security could not be guaranteed, e-mail addresses had to be looked up, and the sender had to laboriously design his QSL card using graphic design software.

So, we used our 25 years of software development and database design experience to develop a site where each user could guarantee his identity with a scanned image of his ham license, could lay out an eQSL card design using simple point-and-click forms, and could upload logbooks either one-at-a-time, or by uploading an entire ADIF format log file at once. The concept is such a breakthrough, we have patents pending on its technology.

To retrieve one of these eQSL cards, the recipient only need enter the callsign, date, and band of the QSO he wants to retrieve, and if the other ham has entered that QSO into the system, up pops the complete eQSL card, ready for printing on a local printer. Furthermore, if the recipient registers his callsign with us, he can get a listing of all incoming eQSLs, and can just point and click to print each card received. Sending a reciprocal card back is a matter of clicking a button!

Apparently, most everyone else thinks this is the right way to do it, too. Another six weeks after hitting the 2 million card mark, it appears the number of cards will double again to 4 million.

Many of the members of the eQSL.cc site are using stock images for their eQSL card designs. But since it is possible to upload a graphic image to use on one's card, there are many custom cards online as well. Users are signing up from over 180 countries all over the world. In many places, a stack of 500 traditional QSL cards might well cost the average ham operator and entire year's salary. On eQSL.cc, 500 beautiful full-color cards can be sent for free!

In an era when "dot coms" are failing left and right, it is noteworthy that the eQSL.cc site, which is supported almost entirely through voluntary donations, has been operating in the black since Day One. Since the site runs virtually without any human intervention, the only ongoing expenses are for development of new features, and for continually increasing disk space, processor power, and bandwidth. A small amount goes to answering the questions and suggestions that come into the webmaster's office by e-mail. In most cases, replies are returned within the same day.

Not everyone agrees that eQSLing is the way to go. Some people like to get their hands on that stiff cardboard with the exotic stamps that spent months in transit from the jungles of some island that is only above water for 3 weeks out of the year. Others are bothered that some amateur organizations still have "no electronic transmission" clauses in the rule books for their awards. Others still are spooked by the privacy issues that this interconnected new world brings up.

But it's very difficult to argue - as the saying goes - with success. And 4 million cards is success by anyone's measure. At the present growth rate (with the number of eQSLs doubling every month), eQSL.cc could be home to virtually all of the world's amateur radio operators within a couple of years. Contest "big guns" will be able to "QSL 100%" within a matter of minutes, saving hundreds of hours of time and thousands of dollars in the process. DXpeditions will be able to "QSL 100%" on the spot, whether it be from that desert island with a dial-up Internet connection, or when the crew gets back to "civilization". It's just a quick log file upload, and they are done!

And eQSLs, unlike their traditional cardboard counterparts, can be verified through automated computer interfaces by amateur organizations wanting to validate award and contest submissions. The presence of a scanned license image on file for each user goes way beyond the simplistic checking that is possible using the older traditional QSL cards.

And now eQSL.cc is also a favorite site for SWLs, because users can identify themselves as either licensed amateur operator, or SWL. The eQSL cards between SWLs and hams are automatically configured to contain proper SWL phrasing, making their lives easier and saving them tons of money.

Complex systems shouldn't be designed in a vacuum, so we have assembled a capable group of hams and SWLs into an Advisory Board. Among these advisors are users with satellite and DX experience, contesting backgrounds, and international origins, as well as technology gurus and people with long-term operating histories. This group discusses current issues and future development plans for the site on a daily basis. Just another feature of the interconnected world we have entered as the 21st Century dawns.

There were nay-sayers when SSB first began to push CW aside. There were those who thought packet radio was just a short-lived fad. Others thought we shouldn't be wasting money on amateur satellites. And some people think eQSLs are "not natural". But for tens of thousands of hams and SWLs who upload their entire logbooks nightly in an effort to live up to the "100% QSL" promise of amateur radio, the final courtesy of a QSO is an eQSL.

(From www.eqsl.cc)

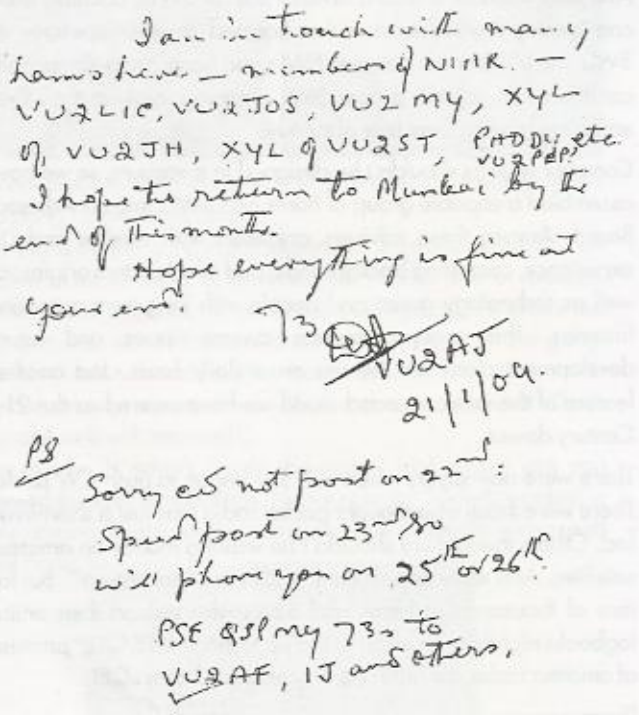
CONTEST

EQSL QSO Party sponsored by eQsl.c.c
on Saturday 17th April 2004 from 00.00UTC to 23.59 UTC.
For more details check out www.eqsl.org.

A Tribute to VU2AJ, OM Dutt

VU2AJ, OM Dutt became a silent key on January 23rd 2004. Besides being very active on CW and winning many awards in his lifetime of pursuing Ham radio, there are a few anecdotes in his life which are worth mentioning. He worked 34 Ham stations from different countries with the call sign AJ, like W2AJ, 4S7 AJ etc and had QSL cards from each one of them in his collection. He had the honour of having a 2 way qso with Pandit Jawaharlal Nehru in New Delhi and Mumbai in 1963 when Panditji visited the Ham shack in the Himalaya Exhibition.. His club station was graced by the then Hon.Minister of Communications, Dy. Defense Minister and the Wireless Advisor. His car number was 7388 from 1974-1990. His qsl card album contains ten rupee notes with nos.7388 and 8888. In his own words, he was the first VU to live in a House of Bamboo with a bamboo door and a bamboo roof and also a bamboo floor, when he was on deputation to Burma!! He operated a 5kw transmitter with a double rhombic antenna directed to India from Burma to have regular one way qsos with his xyl and harmonics in India in 1954, with proper permission. Without the aid of a computer or dxpeditions or special call signs, he had over 5000 contacts on cw. He retired as the Director General of Overseas Communication Service, now known as VSNL.

The day before he passed away in Hyderabad, he was in touch with his Ham friends as shows his last letter reproduced below:



I am in touch with many ham friends — members of NIHR — VU2LIC, VU2JOS, VU2MY, XYL of VU2JH, XYL of VU2ST, PHODU etc. VU2PEP. I hope to return to Mumbai by the end of this month. Hope everything is fine at your end. 73 VU2AJ 21/1/04.

PS Sorry cd not post on 22nd: Speed post on 23rd/24 will phone you on 25th or 26th. PSE QSL my 73s to VU2AF, IJ and others.

Silent Key

OM Madhava Menon, VU2MAH, an active ham from Kollam (Quilon) in Kerala expired yesterday 7th Feb 2004. He was about 84 years old.

REPORT ON CW CONTEST 2003.

- by VU2VIT, Vittal

In a situation when every aspirant of Ham Radio wants cw to be abolished, it requires a lot of stamina to embark upon a cw promotional contest. This, vu2rjn, om Rajan had in abundance and he has been relentlessly running a cw net for the last nine years. No wonder his sincere effort was rewarded by a large number of Hams (85) participating and the daily checkins rose to a peak of 35. There are atleast another 30 qualified cw operators who have not checked in.

Assitance for the contest by way of sponsorship poured in. We will be ungrateful if we don't mention their names by way of thanks.

1. Three straight keys were donated as trophies by Rana Dutta and Co. Kolkatta, which were plated Gold, Silver and Bronze by vu2wia, om Rajan.
2. Certificates were printed by vu2dev, om Venkat of Bangalore
3. Log books were printed and donated by vu2sbj, om Srikant Bhat, Mangalore to be given to participants with over 25 check ins.
4. Apart from the trophies and certificates 4 runners up were given. Gift items namely, Frequency counters, Iambic Keyers and Morse reader, (Three in one) Time, Temp, Humidity indicators were sponsored by Bangalore Amateur Radio club, vu2gur, vu3wia, vu2vit vu2vnk, vu3ash and vu2dx
5. Pollachi amateur radio club headed by vu2tx, om Samy and general secretary vu3ova, om Mayilsami and vu2dx, om Saif sponsored the prize distribution ceremony which included free Lunch on the 11th of Jan'04 which was attended by 35 Hams in and around Pollachi.

The Winners are:

GOLDEN KEY AWARD : VU2VNK, OM VENKAT (153 days, checked in on all days)

SILVER KEY AWARD : VU2 ACC, OM CHARLES(152 days)

BRONZE KEY AWARD : VU2LX, OM LAXMAN(152 days)

RUNNERS UP :VU2JOS, OM JOS,VU2HEG, OM HEGDE,VU2RM, OM RAO,VU2GOI, OM VINAY

With a view to promoting ham radio as a sport Om Rajan in his daily net at 7.30 am to 8.30 am on 7015 khz will transmit a small practice message. Hams can brush up their cw by listening and checking in the net frequently. To provide an impetus a similar contest will be held in 2004 too.

KUDOS KORNER

ARRL member Indranil "Kitchu" Majumdar, VU2KFR, of Calcutta, India, took the $1000 third-place ribbon for his Crane Robotics Controller, a Z8-based programmable system for controlling the robotic movements of a crawler crane or any automation system that involves altitude-azimuth operations with predefined loads.

Majumdar also won a $250 distinctive excellence prize in Motorola's Flash Innovation 2003 Design Contest for his automobile cruise control design. The radar-guided system, built around the HC08 chip, is designed for all types of vehicles. Using the Doppler effect, it can detect stationary and moving objects 50 to 75 meters ahead of or behind the vehicle. In 2001, Majumdar took home a $100,000 top prize as the overall winner of the Texas Instruments Analog Design Challenge.

http://www.circuitcellar.com/fi2003/F101.htm

Read the complete page at ARRL

http://www.arrl.org/news/stories/2004/03/04/1/?nc=1

CONGRATULATIONS !!

INTERNATIONAL NEWS

(Continued from page 7)

the FCC to combine the current Advanced and Amateur Extra class licensees into Amateur Extra, because the technical level of the exams passed by these licensees is very similar. New applicants for Extra would have to pass a 5 WPM Morse code examination, but the written exam would stay the same. Sumner said the Board felt that the highest level of accomplishment should include basic Morse capability. Current Novice, Tech Plus and General licensees would receive lifetime 5 WPM Morse credit. "This structure provides a true entry-level license with HF privileges to promote growth in the Amateur Service," Harrison said. Among other advantages, Sumner said the plan would allow new Novices to participate in HF SSB emergency nets on 75 and 40 meters as well as on the top 100 kHz of 15 meters. The new license also could get another name, Sumner said. "We're trying to recapture the magic of the old Novice license, but in a manner that's appropriate for the 21st century." The overall proposed ARRL license restructuring plan would more smoothly integrate HF spectrum classes and would incorporate the "Novice refarming" plan the League put forth nearly two years ago in a Petition for Rule Making (RM-10413). The FCC has not yet acted on the ARRL plan, which would alter current HF subbands. The ARRL license restructuring design calls for no changes in privileges for Extra and General class licensees on160,60,30,20,17 or 12 metres. Novice licensees would have no access to these bands. See "ARRL to Propose New Entry-Level License, Code-Free HF Access" on the ARRL Web site, Www.arrl.org/news/stories/2004/01/19/1/, for the specific subband allocations ARRL is proposing for each class. From:Abdul (vu3nax)

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Homebrew - VHF Receiver

(Continued from page 10)

This modification was tested by me and was used at the Ganesh Visargan Ham radio service 2003. It was able to pick up signals at 145.000 Mhz.

I have also experimented on the Kchibo small receivers (that use AAA type batteries and analog tuning) and concluded that by making the same modifications to these receiver will enable receiving on the 2m band, and the reception is slightly better because these receivers use an IC with slight narrow band characteristics. The disadvantage here is you will not know the frequency at which the receiver is tuned, as it will have no frequency readout like the digital one. So just scroll the entire dial up n down till u hear a ham station in the period of activity. (do not use the scan reset type digital receivers they are of no use for this purpose)

Important Note: The modification and use of these receivers is at your own risk. I assume no liability for any damage or legal issues that might result due to the modification and/or use of the modified receiver.

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From Monday, 9th February 2004, AIR Net India will be conducted at 7.00 pm IST (130 UTC) on 14.150 Mhz.

Satellite News

(continued from page 9)

AO-40 RESCUE EFFORT CONTINUES

They don't intend to give up. That's what the AO-40 command team has indicated as it works to bring the ailing satellite back to life.

A simple explanation of what's happening is this. Controllers have established a routine of trying to cycle the main battery off and the auxiliary battery on during every orbit. Following this, the sequence to disconnect all transmitters is sent, to protect them from low voltage. The theory here is that with approximately 10 volts on the main power buss, these commands should be making it through. But the S2 transmitter was not designed to run below 20 volts and is not coming on.

Hopefully, the main battery will eventually fail open circuit instead of short circuited as it is now. This will allow the auxiliary battery to be brought fully on-line and permit the satellite to resume normal operations. (AMSAT)

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5 Band - VFO

(Continued from page 6)

If you do not have a fine tuning mechanism (e.g. planetary drive for the tuning knob) then you can use a 10 cm diameter disk on the shaft of the variable condenser and using a cordon put over a 6 mm shaft (applying 3 to5 windings) and this way you will have a fine tuning facility.

(The GE 524 is a scrapped military rig which many VU hams have purchased from VU3 OJA, OM Vinay from Hyderabad or from the Agra Junk Market. This rig has SSB, USB, LSB phone, cw and AM mode with a frequency range from 3-30 Mhz. It can be used with external VFO too. But nobody could make it. 2 years ago when I started to use this rig, I spoke to Bandi, who immediately sent me the diagram. The CCT was made by Bandi himself. If this VFO is made then, the GE 524 can be a versatile rig for all times!!!

------VU2NXM, Basappa)

.....

As Mark Twain once said, "Supposing is good, but finding out is better." Let's find out, shall we?

1. An output driver package with eight 12-V output has the capability to handle a total of 150 mA. It's connected to the following loads :

- a relay coil that consumes 600 mW
- four LEDs that require 10 mA apiece
- a display backlight that draws 200 mA

Can you add an audio annunciator that needs 30 mA of drive without overloading the chip?

ANS : First, compute all current draws. The relay coil draws 600 mW / 12 V = 50 mA. The LEDs consume a total of 40 mA. The backlight draws 200 mW / 12 V = 16.7 mA. The total current already being handled is 50 + 40 + 16.7 = 106.7 mA. An additional 30 mA brings the total to 136.7 mA, which is within the rated capacity of the driver.

SHOPPING LIST FOR RM 96 HF TXVER

by N.S. Harisankar VU3NSH

BPF & RF Amp

L2, L3 & L4	
100 PF - Styroflex	3 Nos.
4.7 PF or 5PF	1 No.
0.047 μF	2 Nos.
0.01 μF	3 Nos.
10K Ω ¼W	1 No.
1k8 Ω ¼ W	1 No.
3k9 Ω ¼ W	1 No.
4k7 Ω ¼ W	1 No.
220 Ω ¼ W	1 No.
4k7 Pot, Lin	1 No.
BF494	2 Nos.

RX MIX & Filter

L5	
100PF-Styroflex	1 No.
0.047 μ F	1 No.
0.01 μ F	2 Nos.
0.001 μ F	1 No.
47 k Ω ¼ W	1 No.
1 k Ω ¼ W	2 No.
6 k8 Ω ¼ W	1 No.
470 Ω ¼ W	2 Nos.
BEL - SSB Filter 9MHZ	
9 MHZ (BCF 1001)	1 No.
BF494	1 No.

I & II IF Amp

L6, L7	
100 PF-Styroflex	2 Nos.
0.047 μ F	5 Nos.
0.01 μ F	1 No.
120 Ω ¼ W	2 Nos.
3 k3 Ω ¼ W	2 Nos.
1 k2 Ω ¼ W	2 Nos.
3k9 Ω ¼ W	1 No.
33k Ω ¼ W	1 No.
1k5 Ω ¼ W	1 Nos.
BF494	2 Nos.
1N4148	2 Nos.

Pro. Dect

0.047 μ F	2 Nos.
0.001 μ F	1 No.
0.1 μ F	2 Nos.
0.0047 μ F	1 No.
10 μ F 25V	1 No.
1 μ F 25V	1 No.
22 k Ω ¼ W	1 No.
39 k Ω ¼ W	1 No.
470 Ω ¼ W	1 No.
1 k Ω ¼ W	2 Nos.
220k to180k ¼ W	1 No.
BF 494	1 No.
BC 547	1 No.

AF Amp

33 μ F 25V	1 No.
100 μ F 25V	2 Nos.
0.01 μ F	2 Nos.
0.001 μ F	1 No.
LM 380 IC	1 No.
8 Ω 1W SP	1 No.
10k to 22k Pot.Log	1 No.

AGC

0.01 μ F	1 No.
1 μ F 25V	2 Nos.
10 μ F 25 V	2 Nos.
1 k Ω ¼ W	2 Nos.
2 k2 Ω ¼ W	1 Nos.
2 k7 Ω ¼ W	1 Nos.
22 k Ω ¼ W	1 No.
820 k Ω ¼ W	1 No.
47 k Ω ¼ W	3 Nos.
12 k Ω ¼ W	1 No.
33 k Ω ¼ W	1 No.
47 k Ω / 500kΩ	1+1 Nos.
10 k Preset	1 No.
741 IC	1 No.
1N4148	2 Nos.
2N2222	1 No.
250 μ A - VU meter	1 No.

BFO / OSC

0.047 μ F	1 No.
100PF-Styroflex	1 No.
47 PF-Styroflex	1 No.
30 PF Trimmer	2 Nos.
100 PF	1 No.
120 Ω ¼ W	1 No.
10k Ω ¼ W	2 Nos.
4k7 Ω ¼ W	1 No.
1k2 Ω ¼ W	2 Nos.
BF 494	1 No.
1N4148	2 Nos.
LSB/USB Crystal	
BEL-9.0015&8.9985	1+1 Nos.

VFO

L1 & L 14	
100 PF-Styroflex	1 No.
470 PF-Styroflex	2 Nos.
1k PF-Styroflex	2 Nos.
47 PF-Styroflex	1 No.
3k9 PF-Styroflex	1 No.
0.1 μ F	1 No.
100 μ F 25 V	1 No.
BC 549	3 Nos.
10V-400mw Zener	1 No.
120 Ω ¼ W	1 No.
3k3 Ω ¼ W	1 No.
2k2 Ω ¼ W	1 No.

SHOPPING LIST FOR RM 96 HF TXVER

1k2 Ω ¼ W	1 No.
1k5 Ω ¼ W	1 No.
150k Ω ¼ W	1 No.
390 Ω ¼ W	1 No.
2X - Gang + 25 PF or 20 PF Gang	

BAL. MOD

L8	
100 PF - Styrolex	1 No.
47 PF	1 No.
0.047 μ F	2 Nos.
0.01μ F	1No.
0.001μ F	1No.
30PF Trimmer	2 Nos.
12 k Ω ¼ W	1 No.
120 Ω ¼ W	1 No.
8 k2 Ω ¼ W	1 No.
1 k2 Ω ¼ W	1 No.
1 k Ω ¼ W	1 No.
1 k Preset	1 No.
1N34 or 1N4148	2 Nos.

MIC Amp

0.047 μ F	1 No.
0.01 μ F	2 Nos.
10 μ F 25 V	3 Nos.
4.7 μ F 25 V	1 No.
1 k Ω ¼ W	2 Nos.
1 M Ω ¼ W	1 No.
10 k Ω ¼ W	1 No.
6 k8 Ω ¼ W	2 Nos.
4 k7 Ω ¼ W	1 No.
3 k3 Ω ¼ W	1 No.
10 k Ω ¼ W	1 No.
5 k6 Ω ¼ W	2 Nos.
1 M Ω Preset	1 No.
741 IC	1 No.
2 Pin con - MIC	1 No.

TX - MIX & RF Pre.Driv.

L_9 & L_{10}	
168 PF - Styroflex	2 Nos.
100 PF	2 Nos.
0.047 μ F	3 Nos.
0.1 μ F	2 Nos.
1 μ F 25 V	1 No.
10 μ F 25 V	1 No.
47 kΩ ¼ W	1 No.
2k7 Ω ¼ W	1 No.
3k3 Ω ¼ W	1 No.
47 kΩ ¼ W	1 No.
120 Ω ¼ W	1 No.
330 Ω ¼ W	1 No.
180 k to 220 k	1 No.
BF 494	1 No.
2N2222	1 No.

RF Driv

L_{11} & L_{12}	
200 PF - Styroflex	1 No.
150 PF - Styroflex	1 No.
180 PF - Styroflex	1 No.
0.1 μ F	4 Nos.
0.01 μ F	1 No.
25 μ F / 22 μ F - 25 V	2 Nos.
4.7 μ F - 25 V	1 No.
47 Ω ½ W	1 No.
1 Ω ½ W	1 No.
470 Ω ½ W	1 No.
10 Ω ¼ W	1 No.
220 Ω ¼ W	2 Nos.
47 Ω ¼ W	1 No.
1k5 Ω ¼ W	1 No.
2k7 Ω ¼ W	2 Nos.
270 Ω ¼ W	1 No.
180 Ω ¼ W	1 No.
150 Ω ¼ W	1 No.
2N2222	1 No.
2N2218 / 2N3866	1 No.
BD139/C1162	1 No.
1N4007	1 No.
250 μ H RFC	2 Nos.

Heat sink for 2N2218 & BD 139 1 +1 Nos. RFC - 20T - 28 SWG on FT 37-43 or T-O5 HFA / Balun

Ref circuit & coil Data on Back issue (1) HRN - Jan - Mar 2003, (2) HRN - April-June 2003

For getting technical support use forums in "www.hamradioindia.org".

On air 40m band you can discuss with VU2ETO, VU2GIP, VU2VJY, VU2PTR, VU2HRS, VU2POP, VU2BFO ..... VU2GIP - OM Gopi has made 24 numbers of RM96 transcievers.

For getting 14 MHz (20m band) transciever kit contact VU2IF. The kit named ATS1 is having a complete assembling manual, circuit and component list. The PCB is epoxy with all components marked. The kit is having all IFTs and coils.

QSL info : Amateur Radio Association, 71-B, Pkt. A-9, Kalkaji, Extension, New Delhi - 110 019.

For frequency counter PCBs and PUSH-PULL RF AMP for this projects are available with me.

CLUB PROFILE - VU2URC

Every year February 28th is celebrated as "National Science Day" throughout the Country, as on this day, Sir C.V. Raman discovered the "Raman Effect" which got him a Noble Prize that brought laurel to our Nation. At ISRO Satellite Centre, Bangalore, this day is being celebrated in a big way for the last 25 years. In order to bring about greater awareness and scientific temper among the school children, various competitions like Science quiz, elocution, spot painting, debates, extempore, model making, skits etc are conducted for the school children. Events for teachers from various parts of the country are also conducted and one such event is an inter-active live tele-conferencing using ISRO's satellite network SPACENET. Nearly 4500 children and teachers from various schools in and around Bangalore visit our permanent Space exhibition, well equipped with audio-visual facility, models and posters of Satellites, Rockets, various systems and Indian Space Programme.

Of course, Live Ham Radio station and demonstration has also been a part of Science Day for more than 15 years and it is one of the most attractive areas among the exhibits. Last year, in order to create greater awareness about Science and Amateur Radio together, VU2URC conducted a unique Science Quiz called "Quiz On Air" live on Ham Radio (VHF band) using the repeater. The quiz was conducted exclusively for the less opportuned and under privileged children of the State Govt High schools. 8 teams participated in this contest from their respective schools. The required Amateur Radio stations were set up at all the schools with the help of a few volunteering Bangalore HAMS. The last year's event has really evoked a good interest and response among the schools, teachers, students and Radio Amateur community. We have received good appreciation, encouragement and support from ISRO and Bangalore HAMS to continue this event and to introduce other possible events in the coming years to popularise Science using Amateur Radio.

Based on the experience, confidence and the support, this year 's Quiz On Air was planned for Govt High schools from various Districts of Karnataka. But due to the shortage of time and pre-occupation of many of our club members with various M'Qth projects, it was again conducted for schools within Bangalore, however, with two differences. One physically challenged team from Ramana Maharishi School for Blind J.P Nagar, took part in the contest and has been awarded a special appreciation prize for the participation. This was the first time, that a physically challenged team took part in any of our events. Secondly, apart from live audio, Live SSTV Pictures were exchanged with one of the schools. The received SSTV pictures and the PC based scoreboard were projected on two giant screens of the auditorium from where the quiz was conducted. The transmitted and received audio was also made available through the auditorium public address system for the benefit of the students witnessing as the audience. The entire quiz was conducted using the repeater VU2TWO belonging to the Repeater Society of Bangalore. Great care was taken regarding the medium of language and the topics. The questions were put both in English and Kannada and the choice was given to answer in either of them. The topics were Science, Space, Computers & IT and Ham Radio. The write-ups about Space and Ham Radio were also provided to the participants. The questions on Science topics were selected from their own school syllabus, which would help them to excel in their final exams that is round the corner.

Again, it was a grand success, which would not have been possible, but for the dedicated, hard and co-ordinated efforts of 10 Hams of Bangalore, Repeater Society of Bangalore, students, teachers, ISRO officials and of course, VU2URC members. The primary objectives of motivating the under-privileged children and the proof of technical competence of Hams were a Great Success. Later in the evening, all the winners, other participants, teachers and Hams attended the valedictory function at ISRO auditorium. The Organizing Committee, through the special Science Glitz brought out on the occasion, has gratefully acknowledged the Repeater Society of Bangalore and the services rendered by the Hams. A special mention of thanks and appreciation to VU3HPF GOPAN for his kind assistance and preparedness in setting up the SSTV station at a short notice and to VU2HNS SURESH, Convenor "Quiz On Air" competition for meticulous planning and execution. Our sincere thanks to Repeater Society of Bangalore, for according permission to use their repeater VU2TWO.

On behalf of all VU2URC members, I take this opportunity to sincerely thank the following HAMS for their kind and volunteering services offered to realise our common objective to popularise and promote our great scientific hobby-The Amateur Radio.

VU2DGP	Sheel
VU3SRE	Vasan
VU3JBA	Soms
VU3HPF	Gopan
VU3GFF	Santosh
VU2LNN	Nagi
VU2TKX	Raman
VU2NTA	Natraj
VU3TGC	Mohan
VU2GUR	Guru

73's de Mani. VU2WMY

Secretary & Station-in-Charge

Upagrah Amateur Radio Club,

VU2URC, ISRO Satellite Centre, Bangalore

RAGCHEWING WITH CYRIL VU2CY

Dear Sarla,

I am glad that you are working so hard striving to bring back Our "Ham Radio News" back to it's original glory. Wish you Best of Luck !

I got interested in Ham Radio in 1962, when I was on one of my regular visits to Bhendi Bazaar (Chor Bazaar) to look for Old Radio parts and Popular Science Books, I read an article in it on Ham Radio activities in US.

That triggered my imagination and liking for Ham Radio; soon I was on the lookout for similar activities in Bombay. My late friend Om Ashok Shanku was also interested and we joined the Ham Radio classes at St. Xavier's College conducted by our late Hams Om Tipi (TP), late Om Bhatt (RX) and others. I received my Licence No.331 in 1964

I tell you it was great fun !, We used to Homebrew using Xtal's, Nuvistor VFO's and with cheap and easily available 807s and 1625s, putting out 150 Watts was a routine matter.

Those days when I was in Parel, I used to construct Bamboo Bird cage Antenna (Cubicle Quad), cheap, ugly looking, but fantastic, best for DX.

My next Antenna in Andheri was a Quad with a steel centre piece designed and constructed by Om Girimaji (GX), but had to be brought down soon after because the Housing Society where I lived in did not like the appearance.

I started a Ham Radio Club in Goa in my village. Ham Radio classes were started but no luck the response was very poor, hence I was forced to close it down.Anyway we had a Jamboree on the Air in Vidyalaya school in Vasco and the response was very good

Let us hope to get some more active Hams from Goa on the Band.

Now my ICOM IC745 is not working and nobody seems to be able to repair the same hence I am now back to Home brewing.

My Receiver is a Realistic DX394 by RadioShack

Now I am pounding the Brass and firing IRF's (50W) into an inverted 'V' Antenna fixed on top of my roof.

73es' Cyril Martin (VU2CY)

VU2CY, OM Cyril, in his shack. He is featured in the "Ragchewing" column in this issue on page 16.

CLUB NEWS

Brig. Y. Narula (Retd.)
Cutting the ribbon for
FON Club,
Lt. Col. N. R. Maggo
assisting him,
Dr. Mukesh Chandra (VU2MCC)
Mr. R. N. Sharma (VU2RNC)
and others.

Lt. Col. N. R. Maggo
explaining about
HAM Radio History
to
Maj. Gen. (Retd.)
R. K. S. Bhatia,
Lt. Gen. V. K. Dhir (DGEME),

Dr. Mukesh Chandra
(VU2MCC) is on the side.

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