HAM RADIO NEWS

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"AMATEUR RADIO - A NATIONAL RESOURCE"

50 YEARS OF CONVENTIONS

Young Ladies' Radio League

ARRL AFFILIATED

Unity Is The Motto

▲ VU2RCR at the IARU Conference ▲

▲ VU2SWS in Egypt & Texas ▲

▲ YLRL Conference in Denver in August 2005

PRESIDENT'S REPORT

Just returned from Switzerland where I had gone to attend the IARU region 1 conference and the Administration Counsel of the IARU international. Let me explain the structure of IARU. This organization which regulates the Amateur Radio activities and negotiates with International Telecommunication Union (ITU) to defend the rights of the amateur operators from eroding. IARU has 3 regions Region 1 from South Africa to Siberia. It includes Europe Africa and Arab countries. Region 2 is North and South America and the Carribean. Region 3 is Asia Pacific countries, Starting from Iran to Japan, New zealand Australia and the Pacific Islands. Above the 3 regions there is the IARU International. The International society consists of President. Vice President, Secretary and two representatives from each region.

The regional conferences take place once in three years in each region. This year it was in Davos Switzerland. The host was the Swiss society UKSA. Next year the region 3 conference will take place in BANGALORE and the host will be ARSI. In 2007 it will be the region 2 conference in Brasilia.

I had attended the conference as Director of region3 and also represented ARSI in the international forum. The main points discussed at the conference were the QRM from Power Line Communication (PLC) and for getting the frequency in the 40 mt band extended from 7.00Mhz to 7300 Mhz. In region 2 the Amateurs have the full band as it was approved in the years before the 2nd world war. In the 30s the frequencies from 7100 MHz to 7300 Mhs was take away from the Amateurs in region 1 and 3. In 2003 conference of ITU all countries have agreed to give the frequency up to 7200 Mhs by the year 2009. Some countries have already given permission for the use of this frequency others are still thinking about this. The main problem is the Commercial broadcasters.

Two Amateur Radio Sport that are very popular in Europe are Amateur Radio Direction Finding (ARDF) and High Speed Telegraphy (HST)

In ARDF there are 5 transmitters hidden in an area of 10 KM radius and the competitors have to run to find them and mark it in the map provided. The international ARDF competition in 2006 will take place in Bulgaria.

International contests are also conducted for HST.The present record holder is Andrea Bendasov EU7KI from Belarus with his speed for sending at 216

(Cont in page 3)

THE EDITOR SPEAKS:

I am happy to be back in my VU land after being away for 3 months. I left mumbai in June and embarked upon a journey involving many prefixes!! It was partly a holiday and partly a business trip. The holiday involved taking taking a cruise to Alaska with the entire family of husband, daughter, son and daughter in law and just me and my husband to Egypt and dubai. Then I did some pure YL activities inside the USA, the details of which are in this issue.

During all my travels,I had the wonderful opportunity to meet and interact with other hams and it reinforced my view that Hamradio is the king of hobbies. But I also noticed that the number of new hams is on the decline all over the world. The hobby's average age seems to be 50yrs. I don't see any problem with this, but the hobby needs the youth to survive. Even an advanced nation like the USA faces this problem. Everywhere, the numbers are shrinking. In fact in all the forums that I attended, the common fact noticed was that fewer and fewer logs are being sent in for contests.

In the USA, there is the danger of frequencies being taken away and the hams there are going hammer and tongs at the government to protect their turf. I feel in VU we need to consolidate and present a united stand to the government to protect our rights.

Though I escaped the deluge of rains in Mumbai, my family took the brunt of it, with my husband stuck in the car for 12 hours and my daughter living in her office for 2 days. My scooter was totally submerged. When I was in my last lap of my return journey from the USA, I saw the catastrophical damage done by hurricane Katrina, in the tv monitors at New York airport. In both instances many lives were lost, but it only proves that man is powerless against the fury of nature.

Now that I am back, besides editing the HRN, I am again in the process of organizing the International YL Meet in Mumbai in October 2006. The Seanet is at Bangalore next month and I hope to be there to meet my VU and DX friends.

Once again before I sign off, I appeal to all members to please send me articles , newsitems, pictures for the HRN. With the festival season on, I wish all of you happy festivities and great happiness. 73

Sarla

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(Continued from 1)

characters per min. When the competitor is sending he is given the text and the msg. is received by a computer. For receiving the msg is sent by the computer. The competitors write down in a special short hand of their own. After the msg is over the short hand has to be transcribed.

There was also discussion on emergency communication and the role of Amateur operators The ITU is preparing a Hand Book on this , primarily for the Governments , but will be available to Amateur Societies when it is ready.

The Administration Counsel met on the 17th and 18th of September in Zurich. In this meeting the discussion in the region 1 conference was revived. The budget of the IARU international is about 200,000 $us. Out of this Region 3 pays 2,500 $, Region 2 pays 5000$ and Region 1 pays 17500$. You may wonder where the other175,000$ comes from, It is the contribution of ARRL .

FEEDBACK

Dear editor,

I have attended a meeting held of Hamsat users in PPEG Conference hall, at ISRO, Airport Road, Bangalore on 9th April 2005 along with 15 to 20 Hams. At the meet there was a wecome speech by Shri K. Thyagarajan, small satellite Division followed by opening remarks by Shri Madhavan Nair, Chairman ISRO. Introductory speech was given by Dr.P.S.Goel, Project Director, followed by a power point presentation by Shri J.P.Gupta on Hamsat Mission. VU2UV, Air Commodore Subramaniam made a presentation on Hamsat utilization. This was followed by discussions and a vote of thanks.

Earlier I had the feeling that this VUSAT may be the first and the last. But it is not so. The Chairman and the officials indicated that they can help amateurs in this project further. ISRO is ready to help technically and financially, with the time frame being the only problem. However,, twice a year, Rockets are being fired with Satellite including Dx Satellite. The officials said that the next Ham satellite should be more developed and with a new design.

Now the ball is in us Amateur's court. ARSI should encourage hams and technical institutes like IITs to work on a design for the satellite

Tracking the satellite is done at ISTRAC, under the supervision of Department Director Shivakumar. Soon there will be a Ham station at the tracking headquarters. The 24 hour tracking by ISTRAC is being done by Shri Parimala Rangan and his team. Stations hearing signals on downlink may send their signal reports of quality, clarity and srength to the following email addresses:-

Jpy-isac@rediffmail.com or jpgupta@isac.ernet.in or goel@isac.ernet.in

CLUB NEWS

The Model Engineering College, Thrikkakkara, Cochin is conducting one-day workshop to discuss various aspects of disaster management related to ham radio on 30th September 2005, at The Renaissance Hotel, Palarivattom, Cochin. Registration is free for all The workshop is volunteered by and Model Amateur radio club of the college. This program is being conducted under the Technical education quality improvement program (TEQIP). The objectives of the workshop are: Promotion of HAM Radio activities, Ham radio for serving the society & Disaster management and ham radio. It is also expected to have an active discussion among the participants on how to coordinate the activities of ham radio in helping the society to overcome emergency situations like natural calamities. The moving force behind this whole workshop is Mani.T.K (VU2ITI),Head of Department of Electronics Engineering of The Model Engineering College. His email: vu2iti@yahoo.com, mani@mec.ac.in Phone: office: 04842575370 ext. 333

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For the 5th year in succession the Mumbai Amateur Radio Society played an active role during the Ganesh Visarjan celebrations in Mumbai by providing communication links. The full report is in this issue.

The Thane Amateur Radio Association has successfully completed its its first course of Ham Radio classes for Ham radio enthusiasts and the examination was conducted on 25th April 2005 and results have been declared. 36 passed with Grade 1, 4 with grade II and 6 were awarded restricted grades. All are eagerly awaiting their licences. The next batch is scheduled to take their examinations in October 2005.

The Jamboree on the Air (JOTA) is scheduled to be held on 15th and 16th October 2005. This is an International event for Scouts & Guides all over the world with assistance of Amateur (Ham) Radio Volunteers. In Bangalore, On 15th October 2005 the Amateur (Ham) Radio volunteers along with Sri Chamundi Scouts Group would assemble at Bala Mano Vikasa Kendra, and set up Antennas and Wireless equipment. The Hon'ble Lions District Governor Shri. Aswathaiah.M, MJF, would be flagging off this event at Noon while making his official visit to Lions Club of Bangalore North's Permanent Projects on the eve of Charter Nite. This JOTA program will go on till Sunday the 16th October 2005 (Midnight) The following are the proposed JOTA stations which are going to be on from Bangalore: VU2LCI(Lions Club), VU2ARC(Bangalore Amateur Radio Club),VU2PES(Pinewood English School),VU3LLE(Liitle Lilly English School), VU2URC(Upagraha Club) and individual stationsVU2GUR(Guru) and VU2GOP(Gopal). The Bharat Scouts & Guides, National HQ of New Delhi has addressed circular number 75 and 76 dated 9th September 2005 to all the State Secretaries, State Association of The Bharat Scouts & Guides, INDIA giving details of JOTI and JOTA, those hams who wants to put up JOTA/JOTI stations can contact your local town/district/state Scouts & Guides person/organisation.

The Red Cross in Italy is turning to ham radio as an official communications channel. The Italian Red Cross will activate its first ever amateur radio station in October under the callsign IZ4GQA. The pioneering new station is the brainchild of the radio communications department of the Italian Red Cross's Emilia Romagna region. The department had been looking for a communication tool that would provide wider coverage than existing radio networks, incur no fees and be capable of working in crisis and emergency situations. An amateur radio station appeared to be the perfect solution, but at the time the Italian Red Cross had never before been authorised to operate such a station. Not to be put off, members of the radio communications department obtained a copy of the official Italian amateur radio regulations and submitted a seven-page application for a licence to the Italian ministry of communications. The application was successful and the Italian Red Cross was given the green light to operate an amateur radio station. An Italian Red Cross spokesman said: "Now we can communicate on all ham bands, being able to connect Red Cross stations not only in our region, not only in Italy, but all over the world."

Role of hams after hurricane Katrina

For the first time, the nonprofit American Radio Relay League (ARRL) set up a website and database to facilitate assigning hams.

Pamela Taylor, who works as an events manager in Hampton Beach, N.H., got a call from FEMA and headed south on Sept. 9. She was deployed to a shelter in Ocean Springs, Miss., near Gulfport, before moving to New Orleans. The shelter was a church, well-supplied and maintained, with an abundance of volunteers. Her job was to radio for special needs, anything from a doctor to paper plates. Nights sometimes brought an emergency or two when a resident had to be removed, usually for alcohol or drug problems.

Hams worked with the National Weather Service before and during the hurricane. They still are receiving and transmitting messages in shelters and other locations, alerting emergency agencies that a community needs water, that an elderly woman needs an ambulance, or that sanitary conditions are in crisis.

An estimated 600,000 FCC-licensed amateur radio operators live in the United States; about 162,000 are members of the ARRL, which was founded in 1904 and is located here in Newington, Conn. Nearby Hartford is where Hiram Percy Maxim, the father of amateur radio, experimented at sending messages across the city and then relaying them across the country. Long before e-mail, there was amateur radio. It evolved over the last century so that today, ham operators communicate with one another around the world. Allen Pitts, for example, the ARRL's media-relations manager, says he has spoken to fellow hams in 213 foreign countries or "political entities."

That's the hobby part of hamdom. The serious and vital part is seen in the Amateur Radio Emergency Service (ARES). Trained ham operators are ready with their "go kits" of equipment, batteries, and energy bars. ARRL coordinates the work of the emergency operators. Hams were at ground zero in New York within hours, they were in Florida for the multiple hurricanes last year, and they handled communications in the Northeast blackout of 2003.

Hams are volunteers. When they set sail for disasters, they pay their own way. Sometimes employers give them a paid leave or reimburse expenses. Hams' sacrifices are real, but the rewards are often intangible.

Mark Conklin of Tulsa got time off as a sales manager for an appliance company to relay messages. At first he handled communications between the state department of emergency management and the highway patrol.

Next he was assigned to the 1,200 evacuees transplanted to an Oklahoma National Guard camp. At the camp, he talked to an elderly woman who was crying because she was happy - "communications" had been able to get a pair of glasses for her. "For the first time in a week," she said, "I can see

SSETI Express is the first pan-European student microsatellite, built by a distributed team of university students and radio amateurs throughout Europe (within SSETI), and sponsored by the Education Department of the European Space Agency (ESA). It is due to launch from Plesetsk, Russia, on the 30th September 2005. ress is scheduled to be launched on a Cosmos-3M launch vehicle from Plesetsk, Russia on the morning of the 30th September 2005 at 06:52:26 UTC. The main passengers of the launch will form part of the Disaster Monitoring Constellation from Surrey Satellite Technology Limited (SSTL). SSETI Express is flying as a "piggyback" payload on this launch. The launch flight will last a total of around 35 minutes, after which the Cosmos-3M launcher will inject SSETI Express into a sun-synchronous orbit with the following parameters.

A YL's diary by Sarla Sharma VU2SWS

"What? You want to operate the radio on the cruise ship?" asked my husband, looking at me as if I was nuts.. We were packing for our trip to Egypt and the cruise to Alaska from the USA. "I thought you wanted to spend quality time with the family.", he said while banging his suitcase shut. "Oh c'mon it will just be an hour or two everyday" I said. He shook his head and said "Ok lets put it to vote". "NO", shrieked my daughter, "Its either us or your radio" said my son and daughter in law on the phone from the USA. I was cornered and I knew that I had lost the war even before it had begun. "I'll make you a deal", said my husband. "You stay away from your radio during the cruise and I shall buy you a new radio on the way back" Aha! That was a good one and I agreed. So the holiday trip had a smooth start!

On landing at Cairo, I felt I was in mumbai. It was the same disorganized airport, the same disorganized lines for the customs and the same crowd around the baggage carousel! The Egyptians are a friendly lot and while waiting for my luggage, I had already received advise on where to find vegetarian food in Cairo! Egypt is a wonderful place for those interested in culture and monuments. That 6000 years ago they could build such precise and huge monuments from stone without modern implements is amazing.

During my stay in Cairo, I called up my good friend Said Kamel SU1KM, who immediately offered to pick us up from my hotel to visit his shack and also meet other hams in Cairo. True to his words, he picked us up one evening along with Hassam, SU1HM and we visited the shack of Ezzat, SU1ER. He welcomed all of us to his home and I had the opportunity to operate his shack. I made a few contacts with Europe and Russia. Ezzat had remarried after a long gap, just 3 days prior to my visit and I had the chance of meeting his YL. It was an evening full of laughter as Ezzat was a man who laughed a lot and his laughter was infectious!!! I gave him copies of the Ham radio newsmagazine and also invited all of them to visit India.

Next we drove to the QTH of Said and met his YL and 3 beautiful sons. The youngest one Ali, was the naughtiest and the cutest. Said had just dismantled his antenna in order to take it for an island activation, so there were not too many stations heard in his shack. But it was good to meet his family and visit his qth and get a feel of the egyptian way of life. I am thankful to Said and Hassam for spending the whole evening driving us around with the traffic conditions being terrible. Besides Cairo, we also visited Luxor, Aswan and Alexandria.

From Cairo it was on to the USA to be with my son and his wife. The whole family took a cruise to Alaska. It was a wonderful experience to be in a big ship for a week. It was like a small city in itself with clubs, restaurants, theatres, casinos and all forms of entertainment. I wanted to visit the communications room, but couldn't, as post 9/11, these rooms were barred for visitors due to security reasons. We stopped at the ports of Juno, Skagway and Ketchikan and we went whale watching, took a trip in a toy train in the mountains and also flew on an amphibian plane into the fjords and went very close to the glaciers. It was breathtakingly beautiful. After 8 days, I was kind of sad to leave the ship, since I had gotten used to a life without any work, lots of eating and being together with the family without the phone, TV or internet.

After coming back to Texas, my husband and daughter flew back to Mumbai and I stayed back.. I met my old friends from the Central Texas DX and Contest Club again and was invited to their club meetings. They had their annual Summerfest in August and it was well attended by hams from all over Texas. In one of the forums, Charles Harpole presented a show on the VU4 Dxpedition of which he was a part. There were many speakers on various topics. I also had a great time looking at all the stalls in the flea market.

The YLRL(Young Ladies Radio League) of America celebrated their 50 years of Convention from the 11th to the 14th of August 2005 at the Denver Tech Centre at Denver.It was hosted by the Colorado YLs. Since I am a member of the YLRL,, I was so excited to attend this meeting. I reached there on the 10th evening. In order to avoid any delays, I had taken the flight from Texas to Denver, dressed in the saree and went straight to the DX meeting as soon as I reached the Hotel. It was perfect timing because I was scheduled to speak at 9p.m!! I had just 5 minutes to catch my breath, have a glass of water and then go on to the podium to speak! I gave them all information about the forthcoming YL Meet in Mumbai in October 2006. This was followed by a question and answer session. It was good to meet all the YLs whom I had meet in 2004 in Korea. My roommate was KC0HKB, Jean Parker, who incidentally was married to an Indian and lived in Pune! That night a group of us got together in my friend JR3MVF, Miyo's room which was right opposite to mine. There was Miyo, her husband Jiro JA3UB, Ikuko JA5GSG and her husband Takuo JA5FDI, Jeanie WA6UVF and myself. We had lots of coffee to drink and ate biscuits out of wrappers. I was so happy to see all of them again. Around midnight we all split up and went to our respective rooms. Then Jean, my roommate and I talked till 2 a.m. !! Jean is visually impaired, but one of the most independent woman I have seen, traveling all over the world in her job as radio journalist.

Next morning we all got together at the Hospitality suite where everyone breakfasted on cookies and tea and made new friends. While some of the YLs took off to go to the Molly Brown House Tea Tour, some of us decided to go shopping. With Jeanie at the wheel, and Mio as navigator we made it to the malls and shopped all morning. I of course didn't buy anything but enjoyed window shopping! Post lunch, we returned to the

Hotel to take part in the various forums. There were discussions on Kit building, Disaster communication and VHF communications. There was also a station with a special call AC0YL set up in one of the rooms with a dipole antenna stuck out of the balcony. Conditions were not too supportive but there was a steady stream of YLs working the radio. In the evening there was a banquet to celebrate 50 yrs of YLRL conventions. It was a well organized dinner where all the past presidents of the organizations were honoured for their exemplary work. There was an air of bonhomie all around and lots of photographs taken. I had my place in a table along with my friends Ruth from Italy, Olga, Sigrid and Christa from Germany and other American YLs. Though I was vegetarian, there was lots of food for me. I was taken special care of by one of the waiters who happened to be from Karachi, Pakistan and was so happy to converse with me in Hindi! That night we all got together in Christa's room and while everybody else had liquor, I had water as I am a teetotaler!! But I was on a high just being there. There was lots of laughter and leg pulling with Joe, Christa's husband being the naughty one. I got a chance to converse in german as barring Mio and her husband, the rest spoke german. It was well past midnight when we broke up and went to bed.

Following morning I was invited for breakfast by YL Ann along with my roommate Jean. We walked across to "Le Peep", a small restaurant, inside a church! We breakfasted on salad, muffin and coffee and discussed a whole lot of woman issues. The discussions ranged from plastic surgery to women's rights to relationships, and I enjoyed everybit of it. It was great to discuss and learn the American point of view and it confirmed my belief that women all over the world face similar issues. Then it was time to attend the YLRL meeting and pose for the group photograph. The photographer had a tough time organizing a group of more than 100 YLs chattering non stop! But finally we all said "cheese" and it was over. At the meeting, various issues like new memberships, contests etc were discussed and it was good to know that there were 150 dx YLs in YLRL. After the meeting we all split up into small groups . While some went to visit the Museum of Nature and Science, I went with a group on a tour of the quilt shops. We went from shop to shop looking at the beautiful quilts with their amazing designs. After a lot of leg work, we went for a quick nap and shower to be ready for the YL-OM Banquet. All the YLs were in their traditional attire and I of course wore a saree. It was a night of celebration and also a little sadness as the convention was coming to an end. Many of the YLs promised me that they would be coming to Mumbai in 2006 and I was so happy about that. After dinner, we all said our goodbyes to each other as many YLs were leaving the next morning.

The next day was a Sunday and a group of us, led by Mio went to downtown Denver. The city has a historical area, where the old buildings are preserved in their natural state. We walked around the city looking at monuments and took a trolley ride in the shopping district. We lunched at a wayside café and ate pure American French fries and burgers. Jiro bought himself just one thing. The ARRL handbook 2005! It was a long enjoyable day and we came back to the hotel tired but happy. I went back to my room with a happy heart and wonderful memories. I must say that the Colorado YLs did a great job. Cheryl Muhr N0WBV, was a true leader, making the event a big success. Sharlene KB0WBT was an epitome of good organization looking into all the fine details. In fact every member performed their assigned duties with great care and grace. I particularly liked the idea of the big cw key which had to be operated with the foot. All of us had a good time trying to do morse with our foot. The tote bag, mug and t shirt with the Convention Logo was a great idea and a wonderful souvenir. I also made a whole lot of new friends and had a bagful of momentos from them.

One Monday a truly international group consisting of Lois Gutshall WB3EFQ and her OM, Christa DJ1TE and her OM, Nobuko Uchiyama JR6XIX and her OM Yoshi, Ann WB1ARU and her OM, Olga DJ0MCL, Ruth IT9ESZ, Sigrid DL3LG and myself flew to Bozeman in Montana to the home QTH of Carol WD8DQG where we all stayed for a week. It was a beautiful home with a wonderful view of the mountains. Carol with a big heart had thrown open her warm house for us. We were 2 in each room and my roommate was Sigrid, a fine YL who got her licence, the year I was born!!!! For a week we traveled, cooked and ate together. Once I cooked a meal of potato parathas and pulav for the whole gang and they enjoyed it. It was a lot of hard work but with my able assistant, Olga, it was all done perfectly. We hired a van and visited the Yellowstone national park and other sights and had a great time. One evening Carol invited all her neighbours and Nobuko performed a Japanese tea ceremony with me as the assistant. Only this assistant was wearing a salwar khameez instead of a kimono. But I thoroughly enjoyed the formal ceremony with its bowing and drinking. But what I liked the most was the companionship of all these women, who were achievers in their own fields. Christa was a ham since 50 years, Sigrid was the president of her local ham club, Nobuko was an active dxer, Anne was a school teacher, Olga lived alone in her house in germany and worked in her garden and had the spirit of an 18 yr old, Ruth was the organizer of the 2002 YL Meet in Italy, Lois who pursued other interesting hobbies like tailoring and could make great shirts and Carol our host, who had a booming voice and a great laugh and could drive a truck. She lives alone and manages her farm, is a great quilter and most of all she is large hearted. Only a person with a large heart could have the guts and inclination to host such a big group for a week!

When it was time for me to leave for Texas, I was sad. I was loath to leave the comforting atmosphere amongst all these women, more so as I was the youngest of the lot! Carol saw me off at the airport and as soon as I sat on my plane seat, I burst into tears. But after a good cry, I thanked God for giving me such a wonderful opportunity to be amongst such wonderful people and felt proud that I was part of this wonderful group of hams. I look forward to the meeting in mumbai in October 2006, when it will be my chance to play host to all these wonderful women.

A LESSON FOR THE NEWCOMER

Basics of operating and tracking the Ham Satellite: By Guru,VU2GUR

This article is my honest attempt to explain this mode of hamradio to the newcomers. The term 'satellite' always conjures images of high tech gadgetry and difficult operation in our minds. But its not so difficult as it seems!

While the satellite experimenters in VU heard the beacon, which was switched on for evaluation, a ham from California in USA heard it too and a qso was made. When the world received the news of this qso via email, everyone wanted to operate the satellite!

We are all aware that there are 2 transponders in VU SAT, one from ISRO and the other a gift from PE1RAH, William. It is an Inverting Linear Transponder on Mode 'B', which means an uplink on 70cm Band and downlink on 2metre band. Using a linear transponder at the start may be puzzling and a hide and seek game to find the downlink in order to hear one's own voice or CW signal. To avoid confusion a certain Band plan is followed by a gentlemanly agreement. SSB and CW modes are preferred though the linear can work for FM, SSTV, Packet etc. The power drain of SSB and CW is less as the bandwidth of these modes are narrow. FM and SSTV consume more energy from the satellite battery source and FM has more bandwidth. Unfortunately in India FM rigs are the norm and very few are all mode.

Please refer to fig.1 to understand the working of Inverting Linear Transponder. It gives a general idea about the difficulty in searching one's own downlink. Once everybody understands the chart, the QRM caused by many stations operating at the same time can be minimized. The QRM cannot be eliminated because the Doppler effect varies between both the frequencies of the faraway stations and the close stations. VU SAT's inverting Transponder has a band width of 60khz that is plus minus 30khz from the centre frequency. Uplink frequency is 435.25Mhz and downlink frequency is 145.900 Mhz.

Fig 3

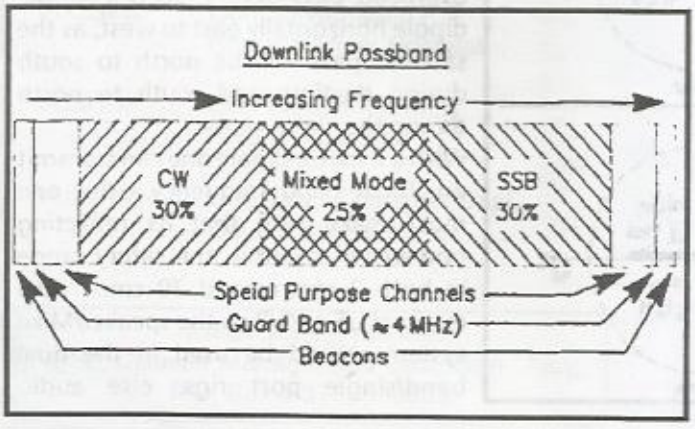
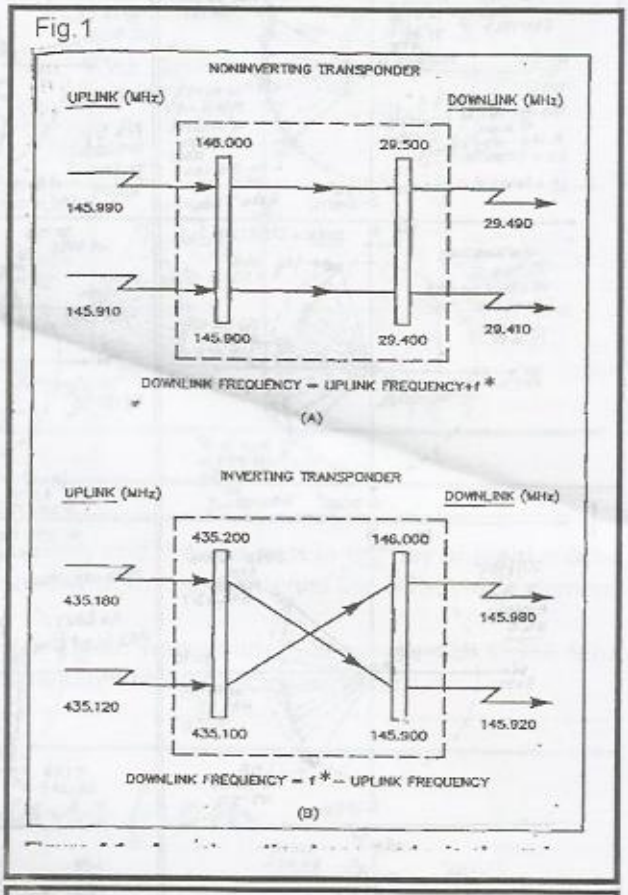
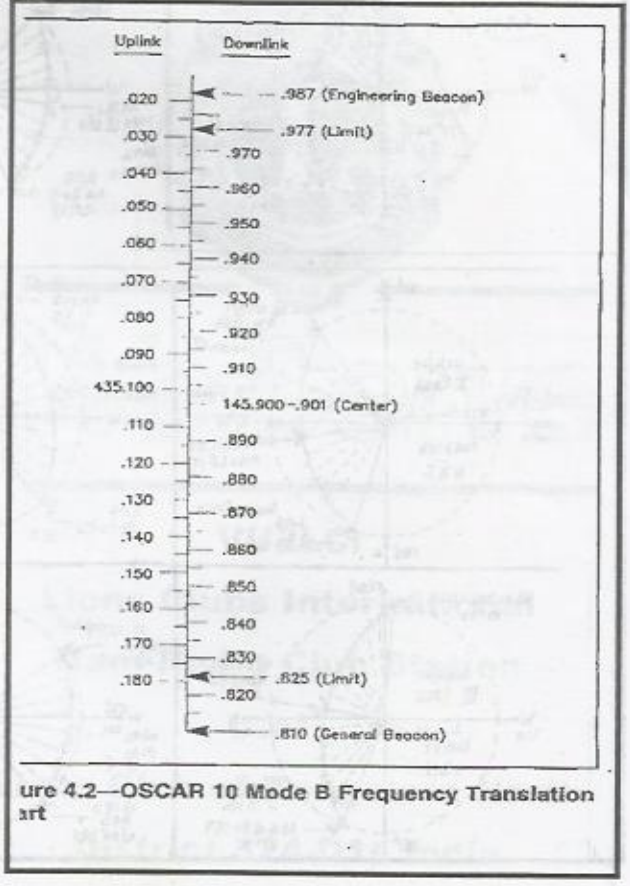
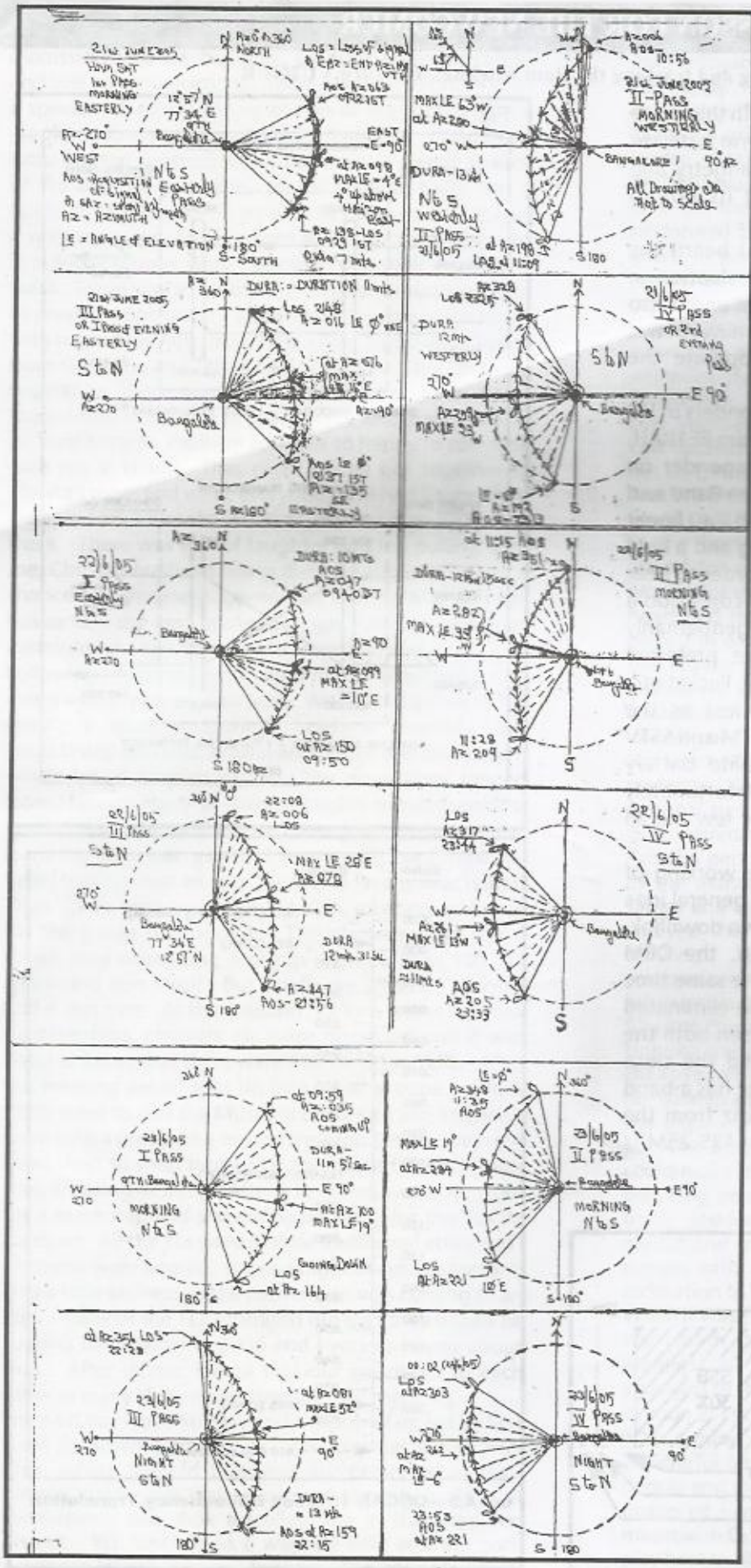


Fig.1





ure 4.2—OSCAR 10 Mode B Frequency Translation art



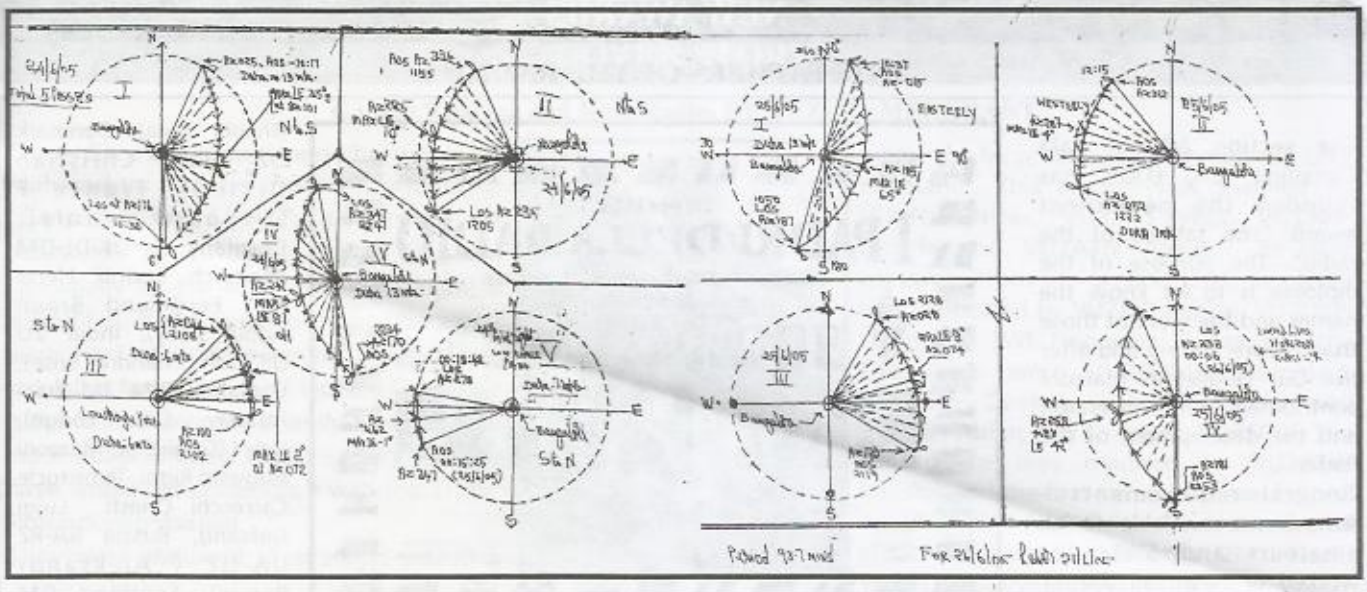
A shift of 5khz plus will there for a station as the satellite approaches and then next on the frequency followed by a shift of 5khz minus will occur as the satellite goes away due to the Doppler effect. The LSB uplink will be on USB on the downlink. For example at any given point of time, a Delhi station will hear the signal at minus 5 khz of the downlink frequency and the same signal can be heard on plus 5 khz in the south of India. But a station in Nagpur can hear on a frequency as shown in fig . Thus one can hear 2 or 3 stations in one frequency, though the 2nd and 3rd station may be operating on a different frequency. It is possible to work as a duplexing system, provided both stations plan it well on a pass. QRM is bound to happen. A Band Plan normally followed is shown below:

Fig 3(copied from ARRL's Handbook)

Big mouth babies generally overload the transponder. If one does'nt have a good receiver, one is likely to be an "alligator", provided one uses high power Tx(Big mouth and no ears!) The Doppler Effect is less at lower angles of elevation. Sometimes one has to check to keep their downlink away from the Beacon frequency. On mode B a station can keep his Rx or Tx frequency fixed. LSB should be used to transmit on up link. Check up your Keplerian elements for 6 days and you will find that the 6th day pass will be almost the same as the 1st day pass, unlike other LEOs.

One can receive the down signal with a rubber ducky too. We don't need to fear that only big antennae should be used for satellite working It has its advantages of course. When an overhead pass occurs, keep a simple dipole horizontally east to west, as the satellite pass will be north to south during daytime and south to north during the night.

With a 2 metre dipole one can transmit on 70cm band frequency. But one must make sure that its reflecting power/swr is within the safety range in both 2 metres and 70 cm.. Also external L/S or G/P on the speaker/Mike system should be used in the dual band/single port rigs, else audio



feedback will crawl in the Tx/Rx.

Remember that the 1st pass either in the day or night will be easterly and the 2nd pass in the day or night will be westerly. If your location is good, then use the Armstrong method with fox hunt antenna like HB9CV or 2 element directionals.

Indian Transponders Beacon frequency is 145.93653Mhz and the Dutch Transponder's Beacon is 145.85986 Mhz with tone. The period of orbit is 93.7 mins and the inclination of the satellite is 97.89deg.westward.

"THE FATHERS OF THE RADIO"

The section ARI of Sala Consilina (SA) ITALY, has founded the permanent award "The fathers of the radio". The purpose of the diploma is to let know the names and the work of those than before, during and after the Our Guglielmo Marconi contributed to the invention and the development of the Radio.

General requirements - Awards are available to all amateurs and SWLs for worked or heard all the 11 countries of the following list where they were born the scientists / inventors who have contributed to to the invention or the development of the radio.

All the QSO made from year 1970 are valid to claim the award.

Bands e Modes All the bands assigned to the Radio Amateur Service and all the modes are allowed, satellites and WARC included.

There are 4 versions of the award:(1) HF (you must have contacted all the 11 countries) (2) 50MHZ/VHF/UHF (are enough only 6 countries to claim the award) (3) SATELLITE (are enough only 6 countries to claim the award)

Countries list: Canada VE (Reginald Fessenden), Croazia 9A (Nikola Tesla), Denmark OZ (Hans Christian Orsted), France F (Edouard Branly), Germany DF-DK-DL-DM (Heinrich Rudolf Hertz Karl Ferdinand Braun Adolf Slaby), India VU (Jagdish Chandra Bose), England G-M (Michael Faraday Oliver Lodge), Italy I (Guglielmo Marconi Augusto Righi Temistocle Calzecchi Onesti Luigi Galvani), Russia RA-RZ UA-UZ (Aleksandr Popov), Scotland GM (James Clerk Maxwell), USA A-K-N-W (Samuel Morse - David E. Hughes Lee De Forest Nathan Stubblefield)

To claim the Award the QSL cards are not required but they must be in possession of the applicant and could be requested anytime for checks. The fee is 10 Euro or 12 Dollars. To receive the Award as registered mail please add 3 Euro or 4 Dollars. Application forms must be sent to this address:

ARI SEZIONE SALA CONSILINA , CASELLA POSTALE N.11, CAP 84036 SALA CONSILINA (SA), ITALY

For more informations you can contact the award manager IZ8AJQ Erminio via email: iz8ajq@amsat.org

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"POPE JEAN PAUL II DXSPEDITIONER OF PEACE"

The section ARI of Sala Consilina (SA), ITALY, desiring to honor and to remember Karol Wojtyla , Pope Jean Paul II has founded the award "JEAN PAUL II DXSPEDITIONER OF PEACE".

General requirements: Awards are available to all amateurs and SWLs for worked or heard at least 40 countries for BASE award of the 131 countries visited by Jean Paul II during his pontificate; 80 countries worked or heard for SILVER award and 131 countries worked or heard for GOLD award.

All the bands assigned to the Radio Amateur Service and all the modes are allowed, satellites included.

There are 4 versions of the award: 1) MIXED 2) PHONE 3) CW 4) DIGITAL MODES

To claim the Award the QSL cards are not required but they must be in possession of the applicant and could be requested anytime for checks.

To receive the forms for the award application and the list of the 131 countries visited by Pope Jean Paul II you can write to the award manager IZ8AJQ Erminio iz8ajq@amsat.org to receive them on your email address.

The fee is 10 Euro or 12 Dollars. To receive the Award as registered mail please add 3 Euro or 4 Dollars.

Application forms must be sent to this address:ARI SEZIONE SALA CONSILINA, CASELLA POSTALE N.11, CAP 84036 SALA CONSILINA (SA), ITALY.

COVER STORY

Ganesh Visarjan and Ham Radio- BY HUZEFA MERCHANT

Come Ganesh Chaturti and the whole of Maharashtra reverberates with shouts of "Ganpathi Bappa Morya". In Mumbai, , as thousands of devotees throng Girgaum Chowpatty for the final Ganesh visarjan, a team of 30 hams (amateur radio operators) were hard at work, ensuring that Mumbai safely bid farewell to the Elephant God. This is the fifth consecutive year that members of the Mumbai Amateur Radio Society (MARS) have worked in conjunction with the Traffic Police during visarjan.

They were stationed at strategic locations across South Mumbai, including Opera House, C P Tank, Prarthana Samaj and, of course, Chowpatty from 12 noon on Saturday till Sunday morning, when Lalbagcha Raja, traditionally the last idol to be immersed, takes the plunge. Besides helping in the regulation of traffic, the amateur radio operators also coordinate with the lifeguards, first-aid camps and paramedics. 'A very essential aspect is the help rendered by them in lost-and-found cases and emergencies like drowning. Generally, the police have too much to do on such days to really tend to these cases. That's where hams come in.

The group drew their plan of action nearly a month in advance. Under the leadership of VU2HIT, Huzefa Merchant, the locations for the stations and the equipments required were discussed a month in advance. The group met every Sunday and discussed the nitty gritties. On the Visarjan Day of 17th September they all met at one location at 11 a.m to collect their gear, banners and food and then dispersed to their locations and all stations were up and transmitting by 12p.m..

One main control was set up at Girgaum Chowpati, where the huge statues are immersed, on a machan. This station was manned by VU2NHR-Nirav, VU2ZRS-Zyros, VU2HIT-Huzefa and VU2AXN Ankur. To relay messages from the ground level, this team was supported by VU2RIO-Pankaj, VU2UBP-Ulhas and SWL Napoleon . Assisting the Lifeguards were VU2GYM-Mohammed, VU2CDP- Deepak, VU2HBV-Huafrid and VU2AIH-Abhay and Shantanu-VU2SCQ. The Ambulance was manned by VU2KTW Kaushik and the first aid counter was helped by VU2MWH-Anantha. Hams were also stationed in the speedboat, VU2MIG-Kapil, VU2YOT-Yogesh and SWL Nilesh.

At Opera House which is one of the junctions, where all the huge Ganpathis have to .pass to go towards Chowpati a machan was erected and the ham station was set up and manned by VU2JPN-Jaiprakash, VU2OZO-Anish, VU3ICU-Vaibhav and SWL Saurav. They shared the machan along with the police who were controlling the processions by making announcements through the microphone. A little further away at the Prarthana Samaj junction on another machan were VU2SFN-Sailesh, VU2CUN, Anish, VU2SFH-Surendra and VU3TMM-Amit. The CP Tank junction machan was manned by VU2AUA-Arun, VU2PAN-Pravin, VU2LOC-Shailesh and VU2TPI-Tirandaz. On standy in his home qth was VU2WLL-Vispi. They all operated on VHF frequency 145.300 simplex. Many SWLs also participated.

The whole exercise lasts till 6 a.m the next day when the last of the statues are immersed. As usual the hams of MARS did a wonderful job too this year, manning their stations, sending messages inspite of the immense noise of the drumbeats of the processions. A job well done and as usual all are ready and waiting for the lord Ganesh to come to mumbai next year and every year!

PRODUCT LAUNCH

Yaesu FT-2000

This is the picture of the new FT-2000 that was displayed at the Tokyo Ham Fair. Marketing is targeted at the IC-756 Pro-III category users with pricing in the $3000 plus class. Little is known about the specifications but this is targeted to be the successor to the aging 1000 series. A spectrum scope via a flat screen or your lap top is available but other specifics are only starting to surface. As pre production information is made available and translated, look for more information in international ham publications. As always expect to see the unit in Japan and Europe first.

The IARU Region 3 Newsletter

Issue 3/2005, Sept 2005

We record our sympathy to the Amateur community and all others who have suffered from the hurricane Katrina disaster in Louisiana, Mississippi and Alabama, USA. The Amateur Service is reported as having been called towards assisting with emergency management and search-and-rescue operations. We express our condolences to the families and loved ones of those who lost their lives in that disaster.

K C Selvadurai 9V1UV Director IARU Region 3

Meetings at ITU Geneva

Our spectrum protection efforts made a significant advance on 30 June 2005, when the ITU announced approval of Recommendation ITU-R M.1732 entitled Characteristics of systems operating in the amateur and amateur-satellite services for use in sharing studies.

This is now a standard reference for technical and operational characteristics of LF through microwave bands, and analog and digital systems. It includes parameters for CW Morse, PSK-31, RTTY, PACTOR 2 and 3, Clover 2000, MFSK16, analog and digital voice, multimedia systems, and amateur-satellite systems.

Recommendation ITU-R M.1732 becomes an important building block for studies leading to World Radiocommunication Conferences, particularly those considering the possibility of sharing between the amateur services and other radio services.

Recommendation ITU-R M.1732 is the result of several years of work by the IARU led by President Larry Price. It includes data supplied by its member societies. A draft was introduced at Working Party 8A in 2003. It was resubmitted to and approved by WP 8A in 2004, sent to administrations in March 2005 and approved by them on 15 June 2005.

IARU was selected as one of the observer organisations from the ITU Radiocommunication Sector for ITU Council 2005. Larry Price, W4RA the IARU President, represented IARU at a meeting of the 46 member ITU Council in July 2005.

Region 3 M S Coordinator's Report

The "long term" intrusions as monitored in Region 3, by the participating National Societies, until July 2005, are summarised as follows:

160m Band: A few of the drift net buoys carrying beacons were reported between 1806 and 1862 kHz.

80m Band: Voice of Korea, Pyongyang, DPR-Korea is a very long time intruder on 3560 kHz with international broadcasting carried through. L9CC eternally calling CP17, in A1A mode, was reported on many frequencies.

40m Band: There are more intrusions in this exclusive band, than any other one. Voice of Korea, Pyongyang, DPR-Korea, the Voice of Broad Masses, Eritrea, both on 7100 kHz are the prominent intruders, carrying International and Domestic services respectively. The Indonesian pirates continue unabated use of the lower CW segment, for their personal conversations with lots of laughing and singing etc., using J3Eu mode. Sri Lankan fishing trawlers are also there, very regularly on many frequencies. Russian maritime single letter beacons like C,D,F,M,P etc., are active around 7039 kHz. Parallel channels of L9CC are heard here also. A severe menace is from the unidentified OTHR (over the horizon radar) They are new entrants, believed to be either from NATO, Cyprus or the Australian Area.

30m Band: Some unidentified South East Asian stations, Sri Lankan fishing trawlers and data stations are using random frequencies. (But this is a shared band that amateurs only have on a "secondary" basis Editor)

20m Band: Several harmonic and spurious emissions from Voice of Korea, Pyongyang, DPR-Korea, are regularly reported. Several Indonesian pirates on 14100 kHz, the IARU beacon frequency, and thereabouts, cause severe interference, as also do some South East Asian stations. Data stations, Sri Lankan fishing trawlers and contraband-carrying boats also use this band. OTHR was also reported.

17m Band: The "Havana Gurgle" on 18090 kHz from Cuba (3 x 6030 kHz), and the Indian para military stations on 18075 and 18100 kHz, telephone patching on 18100 kHz by Indonesians, continue and occasional data stations with multi channel transmissions.

15m Band: Voice of Korea, Pyongyang, DPR-Korea is found here with 3rd harmonic and spurious emissions. Data stations, and OTHR are also regular.

12m Band: Not many openings. Some CODAR activity was reported.

10m Band: SE Asian CB type stations, Chinese dialect transmissions in A3E, F3E and J3Eu modes are reported.

Concerted efforts by the National Societies and the Administrations are required to contain piracy of amateur radio frequencies, worldwide.

Report by Manohar Arasu VU2UR
Regional Monitoring Systems Coordinator

High Speed Telegraphy (HST)

High Speed Telegraphy (HST) is an amateur radio

activity with a more than a 40-year history in Europe. It is a sport adapted to amateur radio, a real challenge for the lovers of Morse code (CW).
The sportsmen compete in three tests. The first test is reception and transmission of letter text, figure text and mixed text. The computer generates the reception texts, starting from an initial speed of 80 marks per minute and increasing the speed until everyone gives up. In the transmission test any kind of Morse key/keyer is allowed. The aim (both in reception and transmission) is reaching as high as possible speed with as few as possible errors.

The second test is reception of call signs generated by the computer (the so called RUFZ test). After any correctly received call sign the next one comes with higher speed, and the opposite after any wrongly received call sign the next one comes with lower speed. The aim is to receive correctly as many as possible call signs within three minutes.
The third test is pile-up test (the so called PED test). The computer simulates a real HF contest with a typical noise as on the air, with numerous contestants calling you simultaneously and thus creating a strong QRM. The aim is to make as many as possible real QSOs within three minutes with correctly received and sent call signs of the correspondents and correctly exchanged RST reports.
To practise, the equipment needed is a computer and a Morse key/keyer. HST is very beneficial for self education. Activity on the air is the best training but there are lots of software or interactive sites in the Web, especially designed for mastering the HST abilities.
The biggest events in HST are the World HST Championships, held in the odd years. Six World Championships are already in history showing an increasing number of participants from all three IARU Regions. It should be underlined that Japanese, Korean and Chinese societies have already participated in some of them. At the same time there are lots of CW clubs all over the world, including those in Region 2, that are not only possible participants in the future, but, furthermore, the abilities of their members can easily lead them to the winning position.
Report from Panayot LZ1US
QSL bureaus
In 1985, the IARU Administrative Council (AC) recognized that the exchanging of QSL cards is a "final courtesy" in an Amateur Radio communication. The AC recognized that the cost of exchanging cards between individual amateur stations is prohibitive in most cases, unless an efficient international bureau system is in operation. They also recognized that an amateur who sends a card via the bureau usually has no way of knowing if the amateur to whom it is addressed is a member of his national IARU society. Most IARU Member Societies operate incoming QSL Bureau systems that are available to members and non-members alike. Some are unable, for good and sufficient reason, to provide service to non-members even if the expenses of doing so are fully reimbursed. Therefore Member Societies are strongly encouraged, whenever possible, to provide incoming QSL bureaus service to non-members within their operating territory, if such non-members agree to pay the full cost of this service. Member Societies should not forward QSL Cards to bureaus operated by non-members of IARU, if there is an IARU member-society in the country concerned that forwards cards to non-members who agree to pay the full cost of this service.
Arthur Godfrey ZL1HV (Jumbo) now Silent Key
Jumbo Godfrey, who was a Director of IARU Region 3 from 1982 to 1985 became a SK on 27 August 05 at the age of 92. Jumbo was President of NZART from 1977 through 1983, a term of six years which, at the time, was a record. He was awarded Amateur of the Year by NZART in 1973 and awarded Honorary Life membership of NZART in 1983.
Jumbo was an exemplary amateur radio operator who contributed his time and skills in various aspects and in service to others.
The Region 3 Web Site
Go to: http://www.jarl.or.jp/iaru-r3/
Newsletter Editor: K C Selvadurai 9V1UV, Director IARU Region 3, kcselva@starhub.net.sg
Publisher: The International Amateur Radio Union Region 3, P.O. Box 73, Toshima, Tokyo 170-8691, Japan. iaru-r3@jarl.or.jp Tel: +81 3 3944 3322 Fax: +81 3943 8282

Kudos Korner

Under the IOTA 2004 AWARD PROGRAMME the following were awarded DXpeditioner Certificates
Gold: VU2AVG, VU2FBI, VU2GUR, VU2JVA, VU2KGN, VU2KLG, VU2LR, VU2NDR, VU2NXM, VU2RMJ, VU2VIT, VU2RRU, VU3WIA, VU3YFD.
Platinum: VU2SWS, VU2UR

THE "TENNA-TUNE": A SIMPLE CONTROL/SWR INDICATOR FOR SCREWDRIVER ANTENNAS

◊ Antennas based on Don Johnson's (W6AAQ) "screwdriver" design have become extremely popular because of their performance and remote-tuning abilities. Miniature versions of these antennas have recently become available from numerous sources.

These miniature antennas interest me because I like to operate mostly "mobile-at-rest." Therefore, I want a small antenna package that I can easily remove and install on my car.

After considering several of the different antennas currently available, I settled on the Little Tarheel "screwdriver" antenna (**www.tarheelantennas.com**).

I like to pair my Little Tarheel with the MFJ-1954 10 foot telescoping whip (**www.mfjenterprises.com/products.php?prodid=MFJ-1954**). This combination makes a very effective mobile-at-rest/portable package, with operation down to 60 meters (and even 80 meters if you don't mind changing the base-matching coil for that band).

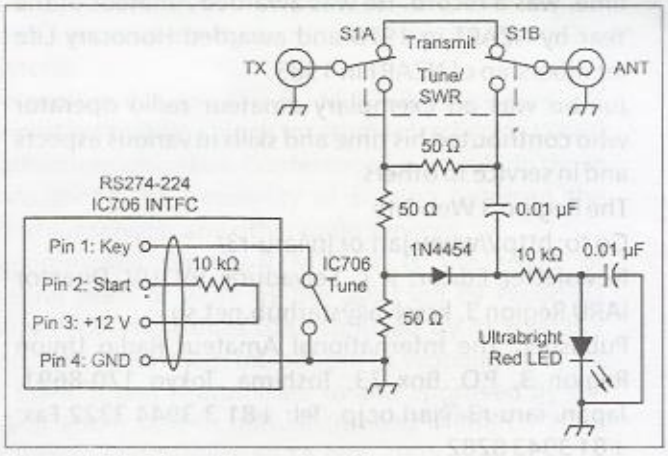

Figure 1—The Tenna-Tune schematic.

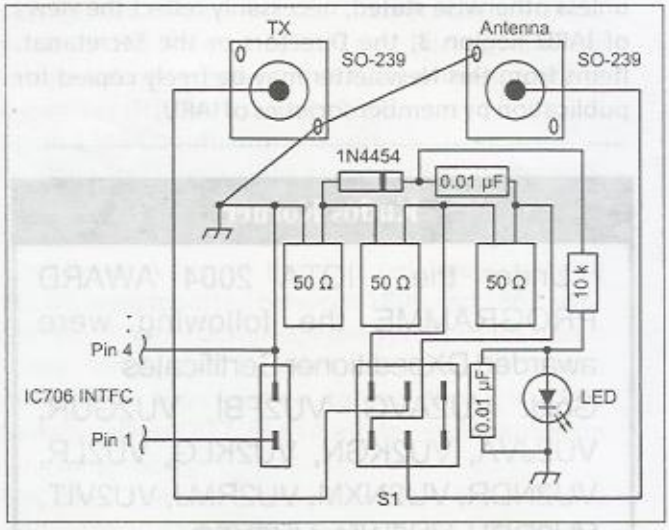

Figure 2—The Tenna-Tune wiring diagram drawn as if the box were folded flat.

Rather than purchase a commercial tuning device, I decided to build a simple, effective and inexpensive tuning indicator to help me tune the antenna remotely.

I normally operate mobile with either an SGC-2020 or an IC-706MKIIG, so my circuit is built to key my IC-706MKIIG in its 10-W tune mode.

The Tenna-Tune

The circuit is shown in Figures 1 and 2. The parts list is in Table 1. The circuit is simply a resistive 50 Ω bridge coupled with an IC-706MKIIG "tune" interface.

The bridge is the same circuit I used in an absorptive SWR indicator for the MFJ-902.[1]

The advantages of the resistive bridge are that it is simple, and it protects your radio during high-SWR conditions. (The worst-case SWR presented to the radio should be only 2:1.) The disadvantages are that two of three resistors must dissipate up to 100% of the tune-up power, and it can be difficult to find the suitable resistors.

This circuit is based on three Caddock 50-Ω 15-W power resistors in TO-126 packages (Mouser #684-MP915-50 at $2.78 each). These are excellent, noninductive power resistors. (If you want more power dissipation, a 30 W, TO-220 version is available—Mouser #684-MP930-50 at $3.58 each.) The 15 W resistors are fine for short periods of up to 25 W, if they have appropriate heat sinks.

The Interface

The IC-706 tune interface is very simple. A 10 kΩ resistor "fools" the radio into "thinking" that a tuner is connected, so the radio is keyed in the 10-W CW mode whenever pin 1 of the antenna-tuner interface) is grounded by the SPST toggle switch. I mounted the 10 kΩ resistor directly on the 4-pin plug, so only two wires need connect run to the Tenna-Tune.

The most difficult assembly task is cutting a rectangular hole for the DPDT slide switch. You may want to use a toggle switch (round-hole mount) to make things easier—I prefer

[1]P. Salas, AD5X, "An SWR Indicator for the MFJ-902 Antenna Tuner," *QST*, Oct 2004, pp 58-60.

Table 1
Tenna-Tune Parts

Qty	*Description (Source)*
3	50 Ω 15 W resistor (Mouser 684-MP915-50)
1	DPDT slide switch (Mouser 611-S602031SS03Q)
1	SPST toggle switch (Mouser 1055-TA1120)
1	Mini-box, 2.25×1.5×1.38 inches (Mouser 537-M00-P)
2	0.01 µF, 500 V capacitor (Mouser 75-5HKSS10)
2	10 kΩ resistor (RadioShack 271-1335)
1	6000 mcd red LED (All Electronics LED-94)
1	Terminal strip (RadioShack #274-688)*
1	Heat-sink grease (RadioShack #276-1372)
3	#2 screws (RadioShack #64-3010)
3	#2 nuts (RadioShack 64-3017)
1	4-pin Molex plug (RadioShack 274-224)
2	SO-239 connectors (All Electronics SO-239)
1	2-piece LED clip (All Electronics HLED-4)*

*Optional—see text.

Bob Schetgen, KU7G ♦ Senior Assistant Technical Editor ♦ h&k@arrl.org

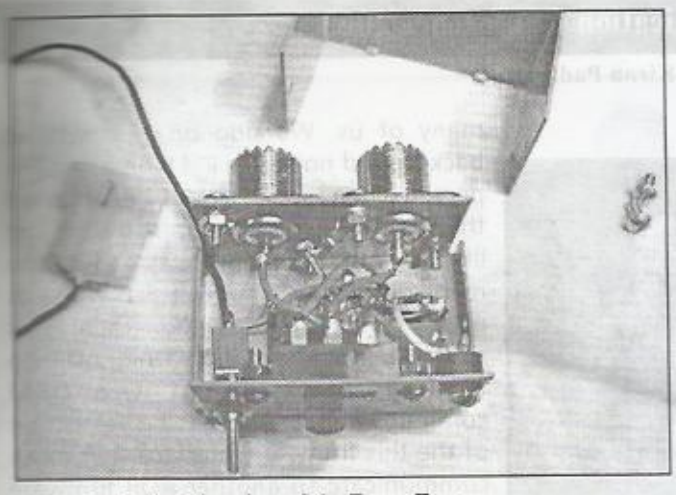

Figure 3—An interior view of the Tenna Tune.

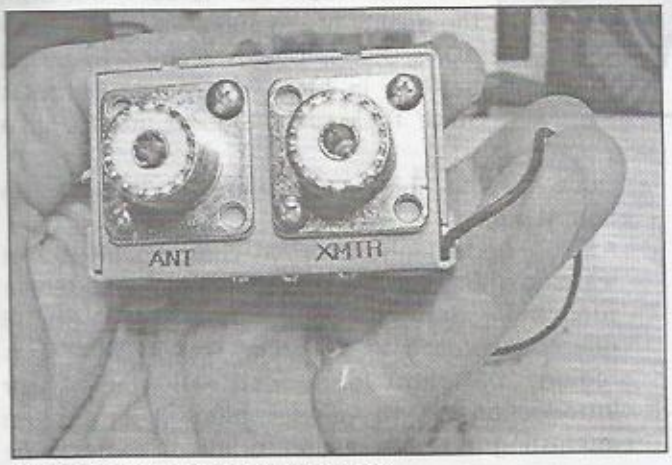

Figure 5—The Tenna Tune back panel.

the look of the slide switch.

I built everything into the tiny aluminum box in the parts list (see Figure 3). If yours is painted, scrape the paint away where the connectors and power resistors touch the box. (Use heat-sink grease under the power resistors.)

I chose a 6000 mcd ultra-bright red LED. This LED requires minimal current to give a good SWR indication. It's at the upper-right corner (see Figure 4). The LED clip in the parts list requires a 1/4 inch hole. You could drill a 3/16-inch-diameter hole and hold the LED in place with some hot glue if you prefer. The two SO-239 connectors just fit on the back panel as you can see in Figure 5.

The wiring diagram is shown in Figure 2. This figure is drawn as if the aluminum box were laid out flat. Wiring should be as direct as possible, but it is not shown that way for clarity. While I did use a terminal strip to mount some of the parts (see the parts list), this is probably not necessary. There are enough stiff leads on the 50 Ω resistors, SO-239s and the slide switch to support the few parts required. I also nibbled a little aluminum from the corner of the aluminum box cover so that the IC-706 interface cable can easily exit the box. Figure 3 gives you an idea of what my final wired unit looks like. All labeling "black on clear" tape from a Casio label maker. I also used stick-on rubber feet on the bottom of the unit. Figure 6 shows the Tenna-Tune mounted with my SG-2020 in the car.

Operation

I start with the antenna in its minimum-length position,

Figure 4—The Tenna Tune front panel.

Figure 6—The Tenna Tune installed with the author's SGC-2020.

which resonates with the fully extended 10 foot MFJ whip just above the 17 meter band. I always return the antenna to this minimum length position when I'm through operating so the antenna takes up as little room as possible in my trunk when I remove it from the quick-disconnect mount.

To tune the antenna, I push the slide-switch on the Tenna-Tune to TUNE, flip the IC-706 toggle switch to TUNE (when using the IC-706MKIIG), and then run the antenna motor up until the SWR LED dims noticeably or, preferably, goes out. I then turn off the IC-706 TUNE toggle switch, flip the slide switch to XMT, and I'm ready to go. This entire process is very easy, and takes very little time. I've had no problem with warming of the Tenna-Tune case during the time it takes me to tune the antenna. Obviously, the Tenna-Tune will work with all screwdriver antennas and other brands of radios. Just limit your tune-up power to no more than about 25 W. A good SWR indication occurs with 2-5 W of power.

This simple unit permits rapid tuning of screwdriver antennas. For IC-706 owners, it also sets the radio to the 10 W tune mode. While this unit does not provide automatic operation, it is easy to use and inexpensive, and it protects the radio during the tuning procedure.

If you have a screwdriver antenna and don't yet have one of those automatic tuning interfaces, give the Tenna-Tune a try!—*Phil Salas, AD5X, 1517 Creekside Dr, Richardson, TX 75081-2913;* **ad5x@arrl.net**

Hints and Kinks items have not been tested by *QST* or the ARRL unless otherwise stated. Although we can't guarantee that a given hint will work for your situation, we make every effort to screen out harmful information. Send technical questions directly to the hint's author.

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TAPR Digital Communication Conference 2005

By VU3KPL Kiran Padiyar

Indian software industry has powered many people like me in W land. Biggest advantage of being in W land, other than browsing local HRO stores is to really to interact with people who make things happen. Being on air actively when in India for some time, I could not resist my thirst to be on air in W land. My desperate attempts to get on air involved Echolink mode, Mobile VHF, IC703 QRP and finally getting access to W4MQ's remote HF station. All my efforts were constantly keeping me QRL and thought process burning. From the time I came to know about the Annual Digital Conference venue for the current year, I was praying much to be in the same place on assignment.

Day 1My QTH was close to the event Venue and I think I was one of the two DX hams (other one was VK Ham) to attend. Completely excited at my first such event, I met Steve Bible N7HPR, who made me comfortable and gave a friendly welcome, I knew that I had arrived at the Mecca of hi technology Amateurs and became ready to experience the rush of hi tech ideas and knowledge. The First Session I attended was google Earth Applications for Ham Radio by VK2TDS Darryl Smith. As a software professional, I had already seen google earth and its power of navigation. However Darryl threw an interesting idea of programming KML to plot APRS tracks and manage the software. He also brought out the ease of the software in putting up line of sight repeaters etc. Believe it or not , the moment I came home the first thing I did was search for my birthplace and line of sight directions from it (Pane-Mangalore, longitude: 75.05 E and latitude: 12.87 N). Post Lunch Session was my favorite. WB6MLC Ken Chong member of hfpack presented experiments of PSK63 with APRS and his experiences with pedestrian mobiling. W3NRG Ed Sack presented a very interesting experiment results on 10m Propagation study using PSK31. propnet.org. Its kind of interesting to see how these groups have collected massive amount of propagation data over several years. In relatively small time I was on air after getting ticket, I have been more excited to come on air every time. The excitement was to dig harder to read stations. Although this is fun, often resulted in audio fatigue. I think this experience will change slowly as Digital Radio Modems gain popularity in voice/data communications. K0PFX Mel Whitteman's presentation on WinDRM was mind boggling to many of us. Working on SSB without background noise like FM is amazing. In person when I spoke to Mel, he explained that its very easy to setup software just like any other digital modes and he has made good number of contacts with lots of European stations too. There was subsequent presentation from AOR on firmware version of the DRM communications. There is an restriction of the this firmware interface that it can communicate to another AOR firmware based Station and not to Software based one. This would set me back, but from the quality of the audio and ease of use AOR's DRM modems seemed to be lot better. In between the presentations Steve took some time in presenting a video of ARISS Contact and some developments on Suitsat project

After a good night sleep of churning ideas and learning of first day, I was even more excited to hear some more. Some speakers were unable to attend due to approaching hurricane Rita in East Texas region. OM Jim Johns had volunteered for introduction to HF digital modes. It was an interesting refresher session for me on some of the popular modes in digital like PSK31, RTTY, SSTV etc. IF I have ever dreamt about complete radio, it would be something like SDR. Presentation by K5SDR Gerald Youngblood kept me on my toes. Impressive features of the radio and possibilities were way beyond I could have imagined. There was a subsequent presentation on opensource software radio (GNU Radio) . This was again interesting to learn as it opens new world of experimentation on digitial software radio control.

Passive Radar: The concept presentation by K7GNU Eric Blossom went way beyond my poor digestion power. However it showed the power of simple radio setup and DSP softwares. At the end of the second day I was rejuvenated like dipping in Ganges. This technology conference has opened my mind to new possibilities and for sure it does every year to several hundred Hams. I was just lucky to be here.

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