Ham RADIO News

Newsletter of the Amateur Radio Society of India (Indian Affiliate of IARU)
July 2017 Issue

President's message

It is with the utmost sadness that I write this message as our Vice President VU2VP, OM Ved Prakash Sandlas, became a silent key a few days ago.

Ved, was a staunch radio amateur, going back several years.

As many will know, Ved was a distinguished scientist who was part of the team, along with the late Abdul Kalam, who took the first baby steps for India's development of rockets and the India's space programme.

He had set up an amateur station at Thumba, near Trivandrum, and in the days of rudimentary international connectivity, used amateur radio, along with ham friends in other countries, to monitor rocket launches.

He also headed several research and development organizations, and after retirement, helped educational institutions near Delhi.

Ved assisted ARSI a lot and accompanied me on several visits to WPC. He also represented ARSI at meetings of NFAP, where frequency allocations are deliberated.

On my last visit to Delhi in March this year, he could not accompany me to WPC as he usually does as he was undergoing treatment. I visited him on my way to the airport while returning to Chennai.

His passing away leaves a big void for amateur radio.

Another year of ARSI comes to an end and the AGM is scheduled at Bangalore on Sunday the 20th August 2017 at the Koramangala Club.

Nomination forms haven sent out and the returning officer, VU2CAW OM Kris, should be receiving the nominations by 15th July 2017.

We are hoping that there will be many nominations, as in the years past; we have had to persuade candidates to file their nominations! If a large number of nominations are received, it will be a very good sign that members want to be on the GC and help in the running of the society for the benefit of members and radio amateurs all over India.

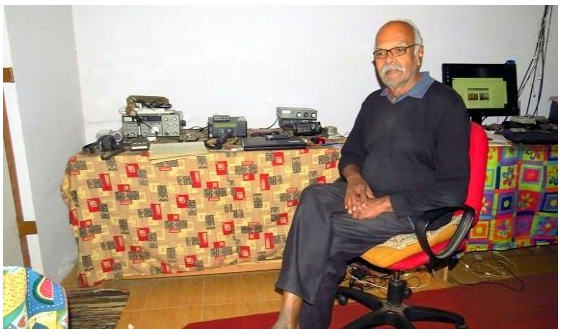
The IARU HF contest was run over the 8th and 9th July and ARSI was represented by HQ stations on all bands.

I also participated giving out the R3 (Region 3) 4x multiplier, but band conditions were awful.

I wish all contestants for the AGM all the best and hope to see many of you there in Bangalore.

Gopal Madhavan VU2GMN

From the Editor's Desk



This issue is slightly delayed – my apologies. A good friend since the early 70s – **Ved/VU2VP** is now SK. My heartfelt condolences; may his soul rest in peace.

Band conditions continue to be very poor – even with the sporadic sunspots I didn't find any good band openings – on checking with several active amateurs I have the same report.

The SUN was spotlessly clean for a total of 44 days during the current year – that is 22% of the year. We are currently over seven years into Cycle 24. The current predicted and observed size makes this the smallest sunspot cycle since Cycle 14, which had a maximum smoothed sunspot number of 107.2 in February of 1906.

Some observers feel that the solar magnetic fields are becoming too weak to form sunspots and if this trend continues, sunspots could completely vanish in future cycles. This is causing quite a concern for Radio Amateurs worldwide.

The IARU HF contest was on during last weekend, the ARSI Contest Team did their best in spite of the poor band conditions.

73, de Ganesh VU2TS

70cm UHF Repeater in New Delhi NCR

INDIA HAMS AMATEUR RADIO REPEATER CLUB – IHARRC – has made the following announcement: 13.05.2017

It gives us immense pleasure to share an update to the repeater activity in Delhi National Capital Region area, that we have added a UHF 70cm Repeater at our existing VHF 2m repeater site location in Janak Puri, West Delhi. Call sign of the UHF repeater is 'VU2HUB' and it's operational since last 1 week.

This is pure volunteer effort by IHARRC team for providing repeater coverage in West Delhi & NCR area where ever foot print is available; this service is to all licensed Amateur Radio Operators.

Currently, we have to go a long way and updates and tweaks shall be done respectively, as we feel signal to noise can be improved. It took me couple of years to bring this to reality from infrastructure point of view, by taking a step by step approach.

I am sure the VU2HUB UHF repeater will help fellow hams to use UHF 70cm Amateur Radio band in a better way and providing a common channel over and above VHF repeater, when we need it the most. So start coming on the UHF band before we lose it. Encourage one and all to fix their UHF setup or bring them up in such a way that you are able to comfortably have a QSO.

Details of repeaters:

UHF Repeater Call - **VU2HUB**
Club Name - India Hams Amateur Radio Repeater Club (IHARRC)
Custodian - Karan, VU2YEP
Freq. = 435.670 with – negative shift of 1.600 MHz
Current Power: 10 watts
Echo link Node - VU2HUB-R (Currently not operational)

VHF Repeater Call - **VU2FUN**
Club Name - India Hams Amateur Radio Repeater Club (IHARRC)
Custodian - Karan, VU2YEP
Freq. = 145.670 with -negative 600 KHz shift
Current Power: 25 watts
Echo link Node - VU2FUN-R

Repeater Setup -
1. Alinco Mobile radios
2. Repeater controller for repeating and other bells and whistles
3. 6 can duplexer
4. Diamond dual band vertical
5. Mean well power supply 29/30 amp
6. Diamond Diplexer 2/70 cm
7. Hardline ½ inch cable

Please give pause between overs and let the carrier / repeater tail drop to avoid time outs. Invite others to the QSO, by checking in between for any new stations.

Special thanks – VU2OEC (Rajesh) and VU3RAZ (Rahul) for their support during testing and tuning of the repeater while we brought this system up.

To sum it up - All are welcome to use it, the purpose is purely to increase activity and have FUN on the band and come to a HUB to meet each other on the radio waves

Stay tuned for more.

Karan, VU2YEP
Team IHARRC
New Delhi, INDIA.

MUMBAI, MAHARASHTRA

The **CQ MUMBAI** Meet was attended by Pune Hams Vilas Rabde VU2VPR and Milind Bhagvat VU2MSB on 04 June 2017 at the COL.C.K.NAIDU HALL of the Cricket Club of India, Churchgate Mumbai.

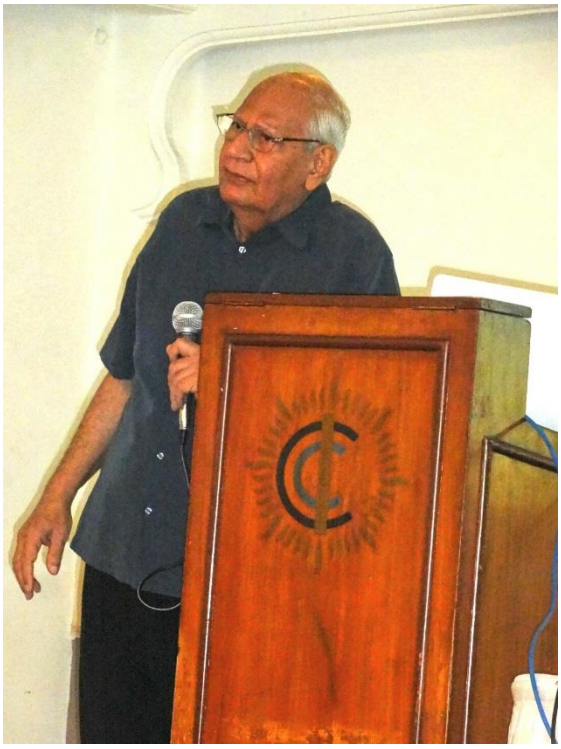
More than 80 Mumbai Hams and SWLs joined the grand meet. Thanks to Mumbai Team for wonderful arrangements.Hams Dosu and Gopal Kamat gave nice presentation on Antennas. Charu shared his home brewing activity. Deepak too shared his view on space management, arganomics in shack. Ham from The Netherlands shared vhf activity in his city.

The meet ended with screening of video film ”Amateur " made by students of FTII. It is appreciated by all Mumbai Hams. Here is a detailed report from Jatin VU2KWJ:

CQ Mumbai Eyeball Meet 2017

The 5th Annual CQ Mumbai eyeball meet took place on Sunday, the 4th of June at the Col. C K Nayudu Hall, Cricket Club of India. The meeting was attended by over 80 hams and SWLs with participants from across the suburbs of Mumbai as well as Navi Mumbai, Thane and Pune. We even had OM Gopal VU2GMN, the President of ARSI among the audience who had come all the way from Chennai and a Dutch ham who was in Mumbai on work! The focus of the meet has always been for hams to get together at least a year irrespective of their club affiliations. This annual event has gotten stronger and the success resonates with the increasing number of attendees each passing year.

This year's meet had various presentations from seasoned hams who shared their knowledge on a few wide ranging topics with the audience. Veteran ham OM Dossu VU2NP started the proceedings with a refresher on antenna basics where he stressed that despite what the manufacturer says, the laws of physics cannot be changed. He dispelled a few myths about gain, SWR and effectiveness of antennas.



This was followed by another interesting talk by OM Gopal Kamath, VU2JE who shared his experiences with numerous types of apartment antennas.

Living in flats is a reality for 99% of urban hams and with rapidly shrinking space for putting up antennas, Gopal talked about how he has managed to not only get a signal out but also filled up his log over the years with 'apartment antennas'.

Keeping with the theme of experimentation, Charu VU2UPX followed up with a walk-through of some of his recent home-brewed projects, notably the BITX40 and WSPR transmitters which can fit inside a small lunch box! A few videos of another home-brew SDR project kept the audience engaged and hopefully a few in the audience would have been motivated to try tinkering and get those soldering irons out.

A sumptuous lunch followed these three presentations where both young and old mingled and exchanged notes. Soon after, Deepak VU2CDP resumed proceedings with a talk titled "HF fun for everyone" where again he touched upon the basics and encouraged everyone to try out the HF bands. He shared his experiences and learning over the years to talk about getting on the air with modest equipment and becoming good HF operators regardless of mode. A late addition to the list of presenters was Edwin, PA7FRN.

Edwin happened to be in Mumbai and kindly accepted the last minute invite to give a talk about his 'Free Radio Network' program. He gave an overview on internet-radio linking and how his FRN program works. For more, check out www.freeradionetwork.eu

The proceedings came to an end with a short video titled "Amateurs". This video was shared by OM Vilas VU2VPR who informed the gathering that it had been made by students from the Film & Television Institute of India, Pune using equipment lent by 'VPR. The gathering dispersed soon after with lots of smiling faces and new or renewed acquaintances hoping to meet again next year.

A few more pictures and videos of the meeting can be found on the website www.cqmumbai.in courtesy OM Satheesh Menon VU2WSM. A big thank you to all those who worked in making this annual event a success again this year.

73 de Jatin, VU2KWJ

PUNE, MAHARASHTRA

Regular monthly meeting ORGANISED BY THE PUNE HAMS & AMATEUR RADIO CLUB was held on 7th May 2017 at COFFEE HOUSE opp SGS MALL in the Pune-Cantonment-Area.

Earlier on 23rd APRIL 2017, since VU2IVV / JAYESH Banatwala of TEAM MARI MUMBAI was in town & VU2ASH / ASHOK JOSHI had just returned from Nagpur members of the PUNE HAMS & AMATEUR RADIO CLUB met informally for breakfast at Hotel Gandherva opp Balgandharva On JM Road in the Pune Deccan Area.. Do we need a Better excuse to meet?

About PHARC:

'Pune Hams and Amateur Radio Club (VU2PHQ)' is about promoting this exciting hobby of amateur radio. We are dedicated to maintaining high levels of amateur radio communications and we encourage and promote home brewing of our equipment, weak signal operations, contest activities, contact weekends.

We do not believe that one must have a massive antenna system with huge RF amplifiers and a big inventory of equipment in order to enjoy the hobby, but rather a modest station with a well tuned antenna setups and good band conditions can work stations hundreds of miles away with great consistency.

We have no officers, no staff, and no dues; however we have volunteer who help with an aim to expand the number of individuals taking part in this exciting hobby.

During the meet on 4th June, VU2ASH / ASHOK JOSHI displayed the home-brewed 1:1 balun – an excellent job as we can see in the accompanying pic. Everyone appreciated it.

VU2PHA
145.100MHz (+600 KHz)
Pune Hams & Amateur Radio Club

A week earlier, on 24th June 2017, some of the members of the **Pune Hams and Amateur Radio Club** met at the QTH of VU2MMJ/ Mohan to help him reinstall his antenna and help him set up his Station and the Bitex40 Radio that he had assembled at the PHARC Bitex40 workshop in Feb – March 2017 in Pune.

Please note that PHARC conducts a regular VHF Net in Pune, the **PUNEree net** . every Saturday evening @ 2200 hrs IST on 145.100Mhz. One can also access the Pune Repeater on 145.100Mhz (+600) and participate in the net.

The VU2PHA Radio Team welcomes all hams to Pune, and to join them for an eyeball on the 1st Sunday of every month.

At the shack of Mohan VU2MMJ

SUPER CAPACITORS

Vilas Rabde VU2VPR gave a presentation on SUPER CAPACITORS at the Bharathiya Vigyan Sammelan, Pune on 12th May 2017.

A supercapacitor is a electric double-layer capacitor (EDLC), also known as supercap, ultracapacitor or Goldcap is a high-capacity capacitor with capacitance values much higher than other capacitors (but lower voltage limits) that bridge the gap between electrolytic capacitors and rechargeable batteries. They typically store 10 to 100 times more energy per unit volume or mass than electrolytic capacitors, can accept and deliver charge much faster than batteries, and tolerate many more charge and discharge cycles than rechargeable batteries.

Vilas presented a brief review of present and future applications along with a demo.

PUNE REPEATER IS QRV

VU2ETD in Pune is on the air 24 x 7. It is located in ADYPU (Ajinkya DY Patil University) Ham Radio club VU2DYP near Pune (Lohegaon) Airport . VHF net every day at 8:15 AM

Set your HANDY/ Base station on 144.800 Mhz with negative shift when visiting Pune.

de Vilas Rabde VU2VPR

VADODARA, GUJERAT

Jayu VU2JAU gave a promotional lecture on HAM Radio in ITM Universe Vadodra on 28th April 2917.. Usual presentation had to change a little along with some video clippings. Jayu also explained, how the SDR works and a home brewed bitex 40 transceiver.

A brief information on ASOC exam and filling up exam forms have also been explained.

The oldest log book of 1972 was also shown along with some qsl cards to show that we still maintain the records of all QSOs. Few home brewed morse keys were also shown along with a providing a basic knowledge of CW signals. Some activities which can motivate the students as well as for the betterment of ITM Universe was explained.

Some Fox hunt videos were also shown and also asked them to conduct the activity in the institute. It has also been told to set up a Satellite tracking station through students to get more opportunities. Jayu VU2JAU is also thankful to OM Shardool VU2OPX and OM Rajubhai VU2RTG, who witnessed the program from 9.45 a.m. to 3.00 p.m. Both of them also assisted in live demonstration on VHF where students spoke to the their counterpart on VHF sets. There were limited entry in the hall as only professors and few selected students were allowed.

All of them have shown their keen interest in the HAM Radio. My xyl Snehal VU3OGP was with me from morning to the end of the program. Later Jayu had a meeting with the Managing Director of ITM Universe and gave him about 1.5 years plan for the HAM Radio activity. He also agreed to host HAM Convention or HAM fest if possible. Thanks to the administration for showing their interest in the hobby.

Thanks JAYU VU2JAU for the report & pics

POURI – UTTARKHAND

Jayu takes ham radio to UTTARKHAND. On 25th May, the Kendriya Vidyalaya, Pouri, Uttarakhand had an opportunity to gain knowledge of AMATEUR RADIO. OM Jayu S. Bhide VU2JAU was invited to provide assistance for it. Starting at 10.30 a.m. a brief introduction of HAM Radio was given to around 750 students during the assembly.

Thanks to the Principal of the school and all the teachers for showing keen interest and getting connected with HAM Radio. Special thanks to Shri S.K.Pandey who took all the pains to organize the program.

Detailed lecture on HAM Radio and its use to the students was conducted in Kendriya Vidyalaya, Pouri - Garhwal on 25 May 2017. About 300 students took part in the program and shown their keen interest to get the HAM Radio license. A basic knowledge of Morse code was also given to the students along with live demo of VHF operation to the students. Overall it was a nice information to the students which will help them in further study.

Thanks to Jayu VU2JAU for the report and pics

QUILON, KERALA

In the Fox Hunt organised by the Quilon Amateur Radio League, Kerala on 22nd April 2017, the Pune Team VU2VPR Vilas and VU2MSB Milind won the Rolling Trophy in the second place. More than 200 Hams had gathered in Quilon (Kollam) for the HAM FAIR.

Sorry, I haven't received information on who won the first place, Hi

There was a report in the media last month according to which:

RADIO AMATEURS ARE WORKING WITH SECURITY FORCES TO TRACK DOWN UNDERGROUND RADIO STATIONS OF GORKHA JANAMUKTI MORCHA

Ham radio operators working with the security forces to track down radio communications of underground Gorkha Janamukti Morcha leaders have picked up "suspicious and coded signals" of the activists to other countries and states.

The security forces and intelligence agencies first got the clue that the GJM was using radio signals as a mode of communication when two radio sets were seized during the June 15 raid on the premises of some GJM leaders.

It was then that the police administration decided to deploy a group of Ham radio operators to track the radio communication of GJM activists.

The operators picked up the suspicious cross border signals during the drill.

"Most of the coded signals and communications were in Nepali and Tibetan languages. After decoding the words, we came to know about some kind of consignment that is about to come. The rest is classified and we cannot disclose it," an official privy to information told PTI.

Ham or amateur radio operators are under the ministry of communications and are licenced card holders to conduct such communication under specific radio frequencies.

A team of ham radio operators is monitoring the radio signals round-the-clock and another team of language experts is helping the officials break the coded language, he said.

Radio communication among leaders of pro-Gorkhaland leaders and activists has increased by "leaps and bounds" after Internet services were suspended on June 18 and their phones are being tracked by the agencies, the official said.

According to official sources, the GJM has imparted radio communication training to its cadres and has also set up small temporary radio stations in various parts of the hills. It is through these radio stations that such signals are being sent and received.

"Some of the radio communications have pointed out that they were well prepared for a showdown and the violence in the hills is not just an incident which happened in the heat of the moment. It was pre-planned," said an official.

The callsigns and the location of the amateurs involved is not disclosed.

Source: http://www.hindustantimes.com/india-news/ham-radios-picking-up-cross-border-signals-codes-of-gjm-activists-official/story-3keqTEdRUxoD8Tbff3a0fO.html

RADIO ASTRONOMY - A project by RADIOQUALIA

"r a d i o q u a l i a" is an art collaboration by New Zealanders Adam Hyde and Honor Harger, founded in 1998 in Australia. Since 1999 they have been based in several different countries including the Netherlands, the UK and Latvia.

Radio Astronomy is an art and science project which broadcasts sounds intercepted from space live on the internet and on the airwaves. *(Remember, I had written on sounds from space – years ago?)*

The project is a collaboration between r a d i o q u a l i a, and radio telescopes located throughout the world. Together we are creating 'radio astronomy' in the literal sense - a radio station devoted to broadcasting audio from our cosmos.

Listeners will hear the acoustic output of radio telescopes live. The content of the live transmission will depend on the objects being observed by partner telescopes.

On any given occasion listeners may hear the planet Jupiter and its interaction with its moons, radiation from the Sun, activity from far-off pulsars or other astronomical phenomena.

Radio Astronomy correlates the processes associated with broadcast radio - the transmission of audible information, and the processes of radio astronomy - the observation and analysis of radiated signals from planets, stars and other astrophysical objects. The work synthesizes these two areas. The signals from planets and stars are converted into audio and then broadcast on-line and on-air. The project is a literal interpretation of the term, ³radio astronomy². It is a radio station broadcasting audio from space.

r a d i o q u a l i a considers radio telescopes to be radio receivers, which are listening to radio signals being transmitted from planets and stars. Thinking of radio in this way radically enlarges the concept. ***Radio Astronomy*** is located within this expanded field of radio.*(A radio telescope is in fact a receiver.) Ed/*

Many of the sounds emitted by these objects are fascinating from both an aesthetic and conceptual perspective, prompting comparisons with avant-garde music and electronic sound art. Yet very few people have heard these sounds, considering space to be silent, rather than the rich acoustic environment it turns out to be.

Listening To Space

The weight of imagery associated with space is overwhelming. We can all look at space, in pictures on television, in books, and on the internet, but in popular culture, we have no sense of what sounds are evident in space. In film, on television, and indeed in documentary, space is usually depicted as an aural void. And indeed, most people associate space with silence.
This is in fact a misnomer. A great percentage of our scientific understanding of space has been derived by listening to space through radio telescopes. The data we glean from listening to space is every bit as significant and important to our comprehension of the Universe as more traditionally understood optical observation.

Even the scientific perception of radio astronomy is largely visual. Despite the fact that objects are observed and recorded using radio, their emissions are represented using graphs, diagrams, graphic visualisations and other visual media. Many objects, do however, emit radiation in the audible band, making it possible to hear the Universe. Space, as it turns out, is a very noisy place, with each planet, star, nebula and cluster, containing its own sonic signature. And yet, very few people have ever heard space. Hardly any of us could describe the sound of a single planet or star.

Radio Astronomy is an attempt to address this, by publicly broadcasting sounds intercepted from radio telescopes. ***Radio Astronomy*** enables listeners to tune into to different celestial frequencies, hearing planets, stars, nebulae, and the constant hiss of cosmic noise. It reveals the sonic character of objects in our galaxy, and in the process perhaps make these phenomena more tangible and comprehensible. The project is indeed radio astronomy in the strict sense - a radio station devoted to broadcasting sounds from space.

What Does Space Sound Like?

By tuning in to different parts of the radio spectrum, many astronomical objects can be heard clearly and distinctly.

The complex interplay between the planet Jupiter and its volcanic moon, Io, produces "radio noise storms", which can be heard on the radio band from about 15 MHz up to 38 MHz. A storm can last from a few minutes to several hours. Two distinctive types of bursts can be received by radio astronomers during a storm. L-Bursts (long bursts of radiation) vary slowly in intensity with time, lasting from a few seconds to several tens of seconds and have bandwidths of a few MHz. L-Bursts sound like ocean waves breaking up on a beach. S-Bursts (short bursts of radiation) have durations of a few thousandths to a few hundredths of a second and can occur at rates of tens of bursts per second. Groups of S-Bursts sound like popcorn popping, or like a handful of pebbles thrown onto a tin roof.

The Sun is also a very commonly heard object via radio astronomy. When there is a solar flare on the Sun's surface, it is often accompanied by a burst of radio energy projected into space. This energy can be monitored with standard ShortWave and VHF radio receivers. Solar bursts typically last from half a minute to a couple of minutes and often sound like a rapid hissing noise followed by a gradual decrease back to the original audio level.

Audio can also be used to describe more distant and abstract phenomena in space. Pulsars are a good example. A pulsar is a small spinning neutron star which contains an enormous amount of energy which causes it to turn on its axis, or rotate, very rapidly. Pulsars rotate between less than 1 time per second up to 642 times per second. It is very difficult for us to understand the significance of this through visual media. But audio or data sonification can really bring this to life. For example the B0329+54 Pulsar rotates around 1.40 times per second. Each rotation can be heard as a click, or a beat, and through audio it sounds like a slow steady metronome. The Vela Pulsar, lies near the centre of the Vela supernova remnant, which is the debris of the explosion of a massive star about 10,000 years ago, rotates at about 11 times per second, and thus has a much faster rhythm

The terrific amount of energy it takes to spin a star on its axis at this pace, and the speed at which these rotations take place, is more easily signified in audio, than-in-visual-media.

Radio Astronomy is an attempt to depict some of these complex audio events.

Broadcasting The Music Of The SpheresThe history of 20th century avant-garde music and sound art has been marked by the radical expansion of the notion of musique concréte. Emanating originally from Pierre Schaeffer's experiments with natural sounds recorded and played back in a musical context, musique concréte has become a framework of thinking about musical forms created from non-musical, or 'found', sounds. Parallel challenges to the definition of music have been issued by many 20th century composers - Alvin Lucier, John Cage, Karlheinz Stockhausen, Iannis Xenakis, to name but a few. John Cage's iconic 4.33 challenged audiences to listen to their ambient surrounds, taking into account the aesthetic and conceptual qualities of the performance location. Stockhausen conceives of technological tools such as microphones, transmitters and recording devices as being musical instruments. These pioneering theoretical positions have created a context whereby musicians are able to count among their compositional tools and performative instruments most naturally occurring or man-made sounds. What at first may appear to be non-musical sound, can be heard and contextualised as musical by the subtle intervention of a musician or sound-artist.

Radio Astronomy can be interpreted as existing within this avant-garde tradition. A musique concréte reading of the project would depict the telescopes as grand concréte instruments, performing an ongoing and automated composition, nuanced by the complex interplay of the astronomers' target observations, the atmospheric conditions of a particular period, and the operational condition of the telescopes.

Avant-garde contemporary electronic music can also give us conceptual apparatus to examine the aesthetic output of the radio telescopes utilised in ***Radio Astronomy***. Music created by experimental electronic musicians using laptop computers and software such as Reactor, MaxMSP and PureData(PD) is often characterised by its use of crackles, pops, hisses, ticks and other digital detritus caused by the digital processing of audio. This music, often referred to as 'glitch music' and exemplified by musicians such as Oval, Kim Cascone, Ryoji Ikeda, Matmos, Fennesz and many others, has become an important part of electronic culture. The aestheticisation of the 'mistake' or 'glitch' which so exemplifies this type of music has helped usher in a new appreciation of 'noise' and 'sonic artefacts' within music composition.

Read within this framework, ***Radio Astronomy*** could be seen to be a rehabilitation of the poetic resonance behind Renaissance astronomer Johannes Kepler's 'music of the spheres'. Throughout Kepler's career, he focussed on reconciling Pythagorean mysticism and the Ptolemaic system creating precise measurements of planetary orbits.

His third law of planetary motion, outlined in his celebrated treatise, Harmonices Mundi (1619), related planetary movements to musical scales and intervals. Though the 'music of the spheres' is no longer an adequate explanation of the physical forces which govern the machinations of the Universe, avant-garde music theory could argue that the actual emissions of the astronomical objects themselves are a new iteration of Keplers' 'music'.

Listen by logging on to

https://soundcloud.com/radioqualia

Lighthouses galore for this radio amateur

The International Lighthouse and Lightship Weekend to be held next month has a registration for Cape Nelson in Victoria from **Ian GW0VML / ZL1MVL**, who has been at close to 200 of the lighthouses!

Since 2002 he has activated lighthouses in Scotland, Wales, Isle of Man, the UK, New Zealand and Australia.

Based in Whangarei on the North Island of New Zealand as ZL1MVL for more than four years, he has kept the callsign GW0VML for lighthouse activities.

This will be the third year in VK-Land, having been guest operator at Macquarie, Barrenjoey and last year at Ballina Head and Cape Byron.

Ian VK3 / GW0VML will be at Cape Nelson in south-west Victoria with an ICOM IC7000, 20 and 40 metre mono band dipoles on a 5.4 metre tall army racal mast.

He is also the Association of Lighthouse Keepers and the World Lighthouse Society's Australia & New Zealand area representative.

Often not highlighted in the event is the lightvessel, or lightship, that has warned ships of dangers in place where construction of a lighthouse is unsuitable.

These floating lights are mainly in Australia, Belgium, England, Germany, Netherlands, Northern Ireland, the USA and Wales.

While most are now moored or part of a museum, several others serving as floating restaurants have been restored, preserved and saved from become scrap in the junkyard.

More than 240 registrations have so far been received with them listed, and simple guidelines for the fun-event on August 19 and 20 are on the website illw.net

Jim Linton VK3PC

Source: Southgate ARC news

WB6RQN – SOLO ROUND THE WORLD

Brian Lloyd WB6RQN - Solo Flight Follows Historic Amelia Earhart Route Miami, Florida, USA, June 1, 2017 – As pilot Brian Lloyd propels his single-engine plane named "Spirit" into the sky on a solo round-the-world adventure, he commemo-rates Amelia Earhart's famous flight eighty years ago on this date in 1937. The two month flight will follow Earhart's historic route to circumnavigate the world at the equator, which starts in Miami, skirts South America, crosses the Atlantic, then Africa, and onward around the world.

Prior to departure from his home airstrip in Texas, Brian Lloyd said, "I am driven by the spirit of historic flights. It is important to remember the aviation pioneers like Amelia Earhart, and their contributions to aviation. Their bold actions made today's air travel possible for all of us."

"My father taught me to fly when I was 14 years old. Aviation is in my family, both of my sons are pilots." Lloyd said.

He is actively communicating while in the air. The public can track his flight on the web, social media, as well as Ham radio.

"I've been a ham radio operator since 1976 and enjoy radio communications very much. The flight route has some very long legs, so I will have plenty of opportunities to talk with ham operators while flying over the world's oceans," Brian said.

Commercial airliners fly long distances every day, but non-stop ocean flights are quite difficult for small propeller planes, which have limited range. To make it possible, Brian Lloyd modified his 1979 Mooney airplane to carry 150 gallons more fuel, then equipped it with modern navigation equipment, long range radio, and satellite communications. Still, the flight is not without risk, and special safety gear must be taken along. The public can track his flight on the web, social media, as well as Ham radio.

Brian WB6RQN has had contacts (14.210, 14.346, 18.117 or 7.130) using a 125 watt transmitter on SSB.

About: Brian Lloyd, 62, is a pilot, flight instructor, engineer, educator, and HAM radio operator. He lives near San Antonio, Texas, USA. The commemorative flights are co-sponsored by The Classic Aircraft Aviation Museum, a non-profit in Texas, and many other individuals who contribute to supporting the flights through donations.

Project Amelia Earhart website:
http://projectameliaearhart.org

(Old timers may remember Amelia Earhart - who was an American aviation pioneer and author.

Sadly, during an attempt to make a circumnavigational flight of the globe in 1937 in a Purdue-funded Lockheed Model 10-E Electra, Earhart disappeared over the central Pacific Ocean near Howland Island)

SP9UOB-P30 Pico Balloon reaches USA

A solar powered 'around the world' amateur radio APRS balloon launched from Gliwice in Poland on Thursday, June 15, has crossed the Pacific and is flying at just over 14,000 metres across the USA

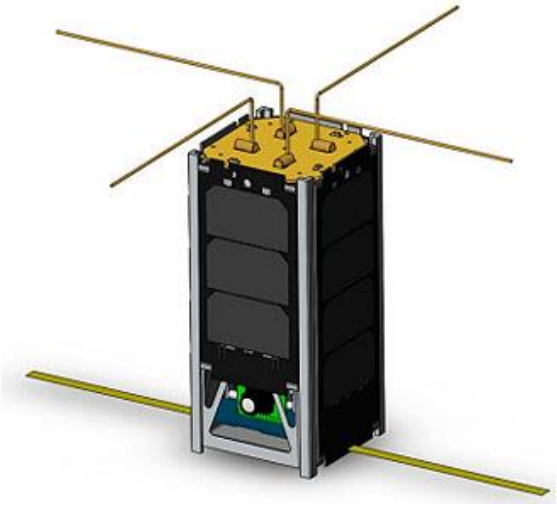
On the UKHAS Google Group **Tomasz Brol SP9UOB** writes: My Pico is currently over USA, any trackers are welcome :-)

APRS on 144.390 1200/9600 every minute
Contestia 32/1000 on 144.251 MHz USB every minute
CW every 5 minutes and "HI" between telemetry transmissions on 144.251 MHz USB.

Source: Southgate ARC news

Amateur radio to the rescue of satellite

I-Inspire-2 is a CubeSat built by the University of Sydney in collaboration with the Australian National University and the University of New South Wales (Sydney)



WIA News reports:

On board the tiny spacecraft is an experiment, part of the QB50 project, designed to “explore the lower thermosphere, for re-entry research and in-orbit demonstration of technologies and miniaturised sensors”, as reported in earlier editions of the WIA broadcast.

Its operational frequency was coordinated by IARU to be in the satellite segment of the 70cm amateur band.

It was placed in orbit from the International Space Station in late May. The deployment was successful; however there were no signs of life when the ground stations started looking for it. The engineering group quickly tested various scenarios on the engineering model only to come to the conclusion that, due to the extended delay in the deployment, the satellite's battery was likely to be depleted and the satellite was trapped in an endless loop, trying to deploy its antenna.

The engineering group suggested that the satellite is still listening albeit with its antennas in the stowed position. This meant that the satellite command receiver might have difficulty receiving any signals from ground control stations. A set of commands were devised which, if received, would instruct the satellite to wait until the battery is charged before attempting to deploy its antenna. Both UNSW and ANU ground stations transmitted the recovery command to the satellite; however after a week or so of no success it was decided that more transmitter power was required to overcome the lack of receiver

sensitivity caused by the still stowed antenna. A request for assistance was passed to EME operators around the world and many responses were received.

The greatest hope for a successful recovery was thought to be PI 9 CAM using high power and a 25 m dish, normally used for radio astronomy but also EME. They were scheduled to transmit on the weekend of June 10-11.

On Sunday June 11, during the morning pass, Rob VK1KW reported a strong signal every 30 seconds on I-Inspire-2's frequency. Dimitris VK1SV who is part of the ANU team, verified reception from home around midnight. The following morning Dimitris drove to the ANU ground station and was able to send commands to the satellite for the first time since it was deployed. Many other radio amateurs around the world also reported reception of the beacon. The satellite had come back to life!

This is a wonderful example of successful collaboration between radio amateurs and the academic community. If a frequency outside the radio amateur band had been used, it is doubtful that the satellite would have been brought back to life.

The crew of I-Inspire-2 wishes to thank all radio amateurs involved and is looking forward to a successful collection of data for the scientific experiment!

http://www.wia.org.au/members/broadcast/wianews/

Asteroid named after Radio Amateur

The International Astronomical Union, April 13, rewarded the space physicist and radio amateur **Asta Pellinen-Wannberg SM3UHV** by designating a celestial body in her name, **Asteroid 11807 Wannberg**

The Swedish national amateur radio society SSA reports:

Asta Pellinen-Wannberg is a professor at the Department of Physics at Umeå University. She has made a groundbreaking effort to use scattering radar when studying meteors that are activated when small particles penetrate into the atmosphere.

The method is now applied to about ten stations around the world. It increases the ability to study different large flows, smaller particles and details in their interaction with the atmosphere, says Asta Pellinen-Wannberg.

Asta is chair of the Swedish National Committee for Radio Science SNRV and has researched together with **Gudmund Wannberg SM3BYA**, who served as Technical Manager at EISCAT Radar in Kiruna and Associate Professor at Umeå University.

RSGH News via SM6ZEM Hans-Christian

First cubesat from Chile

June 22, the first Chilean cubesat **launched by ISRO India.**

Beacon

Frequency:	437.225	MHz
Mode:		CW
Speed:	20	wpm
Periodicity:	60	seconds

Message: 00SUCHAI0 + TELEMETRY (variable length)

CW beacon telemetry consists in four different frames with information of main subsystems.

Telemetry

Frequency: 437.225 MHz
Mode: FM (MSK)
Baudrate : 1200 bps

We will very pleased if you want to help us with a report. The way to submit a report is the following.

1.- If you recorded the audio file (for beacon or telemetry)

Submit an email to spel@ing.uchile.cl with the file using the following subject format <Date> - <Time (UTC)> - <Callsign or Name>

Example

2017/06/23 - 11:58:26 - CA3SBE

In the body you can add optional information like your location (Country, City or Latitude and Longitude) and the equipment that you are using to receive the signal.

2.- If you decoded the beacon see links to send reports,Guide to decode beacon etc here http://spel.ing.uchile.cl/suchai.html

The preliminary TLE file can be found in the following link. We will update this file as soon as the launcher provide us with new information

http://spel.ing.uchile.cl/20170619-suchai.tle

NASA prepares for total solar eclipse

For the first time in 99 years, a total solar eclipse will occur across the entire continental United States, and NASA is preparing to share this experience of a lifetime on Aug. 21.

Viewers around the world will be provided a wealth of images captured before, during, and after the eclipse by 11 spacecraft, at least three NASA aircraft, more than 50 high-altitude balloons, and the astronauts aboard the International Space Station – each offering a unique vantage point for the celestial event.

NASA Television will air a multi-hour show, Eclipse Across America: Through the Eyes of NASA, with unprecedented live video of the celestial event, along with coverage of activities in parks, libraries, stadiums, festivals and museums across the nation, and on social media.

Coast to coast, from Oregon to South Carolina, 14 states will – over a span of almost two hours – experience more than two minutes of darkness in the middle of the day. When the moon completely blocks the sun, day will turn into night and make visible the otherwise hidden solar corona, the sun's atmosphere. Bright stars and planets also will become visible. Using specialized solar viewing glasses or other equipment, all of North America will be able to view at least a partial eclipse lasting two to four hours.

"Never before will a celestial event be viewed by so many and explored from so many vantage points – from space, from the air, and from the ground," said Thomas Zurbuchen, associate administrator of NASA's Science Mission Directorate in Washington. "With our fellow agencies and a host of scientific organizations, NASA will continue to amplify one key message: Take time to experience the Aug. 21 eclipse, but experience it safely."

NASA and other agencies will provide vital information and updates on their respective websites that include viewing safety, activities across the country including at national parks, in addition to transportation preparations.

Studying Our Sun

Many researchers and citizen scientists will take advantage of this unique opportunity to study our sun, solar system, and Earth under rare circumstances. The sudden blocking of the sun during an eclipse reduces the light and changes the temperature on the ground, creating conditions that can affect local weather and animal behavior.

Understanding the sun has always been a top priority for space scientists. These scientists study how the sun affects space and the space environment of planets – a field known as heliophysics. As a source of light and heat for life on Earth, scientists want to understand how our sun works, why it changes, and how these changes influence life on Earth. The sun's constant stream of solar material and radiation can impact spacecraft, communications systems, and orbiting astronauts.

"Eclipse 2017 provides an incredible opportunity to engage the entire nation and the world, inspiring learners of all ages who have looked to the sky with curiosity and wonder," said Steven Clarke, director of NASA's Heliophysics Division in Washington.

NASA spacecraft capturing the event include: NASA's Lunar Reconnaissance Orbiter, which will turn toward Earth to track the shadow of the moon on our planet; a host of Earth-observing spacecraft, which can both observe the shadow of the moon and measure how it affects Earth's weather; and a fleet of solar observing spacecraft. NASA images and data of the eclipse will complement that collected by other scientific organizations.

To watch the Aug. 21 NASA TV eclipse broadcast online and access interactive web content and views of the eclipse from more than 60 telescopes, aircraft and balloons, visit:

https://www.nasa.gov/eclipselive

ARISS - SSTV Commemorative Activity

Special Slow Scan Television (SSTV) transmissions are expected to be made from the International Space Station on 145.800 MHz FM around the weekend of July 15.

In commemoration of their 20th anniversary, the ARISS team is planning to transmit a set of 12 SSTV images that capture the accomplishments of ARISS over that time.

The ARISS SSTV Blog says:

While still to be scheduled, we anticipate the SSTV operation to occur around the weekend of July 15. We are planning for at least a 2 day operation, but are working for a potential longer operation. Note that all of this tentative and may change based on crew scheduling and ISS operations.

Starting with our first meeting in November 1996, our joint operations on Mir, becoming the first operational payload on ISS in November 2000 to our 1103rd school contact (so far), ARISS' accomplishments have been tremendous. We have touched the lives of many and inspired and educated countless students to pursue science, technology, engineering and math careers.

Please stay tuned as more details on our SSTV event will be communicated in the coming weeks. Please spread the word. And think about how you can get students in your area involved in capturing these images. We would love to hear your stories on how that goes.

Frank, KA3HDO

Strange Signals and Mysterious Oscillations

The IARU-R1 Monitoring System newsletter reports mysterious oscillations on 28000 kHz and strange signals from Central-Africa.

The International Amateur Radio Union Monitoring System (IARUMS) Region 1 June 2017 newsletter can be read at http://www.iarums-r1.org/iarums/news2017/news1706.pdf

Reports of Amateur Band intruders can be logged on the IARU Region 1 Monitoring System Logger at http://peditio.net/intruder/bluechat.cgi

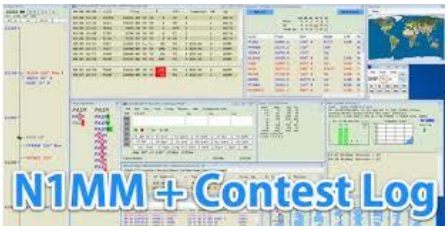
Monitor the short wave bands on-line with a web based SDR receiver at http://www.websdr.org/

IARU Monitoring System (IARUMS) http://www.iaru-r1.org/index.php?option=com_content&view=category&layout=blog&id=39&Itemid=87

NETWORKING THROUGH WAN/INTERNET

Below are links to setup manuals with step by step pictorial instructions for a N1MM Logger+ VPN

network used by AT1HQ, the IARU station for the Amateur Radio Society of India (ARSI). This was developed over the past 2 years by the VU Contest Group whose members mostly make up this operation - one of our efforts to get people involved and work as a team as contesting takes off on the sub continent with more and more people sending in logs to contests. I had the client instructions ready last year but not the Server side which I completed a few days ago. This is a much more refined version this year :)



The N1MM team can probably put this up in the support files section of the website if needed and be of help to folks who setup these WAN stations each year. A couple of friends from other societies did ask last year and I was not able to complete the server side manual in time but here it is finally. I have copied them on this email and also saw another email from Rag LB3RE on another new thread _ I have copied him here as well to keep this all in the same live thread.

1. **Server Side Setup Manual –** http://goo.gl/5phfUy

2. **Client Side Setup Manual** - https://goo.gl/xqWwPX

The VPN software of choice was the free Softether Open Source VPN for Server and Client. and I configured a Windows Server 2008 R2 instance (F1) on Microsoft Azure on the cloud which ran as a server with N1MM Logger+ installed as the Master station.

Last year we ran without DHCP to the 8 client stations and had to enter the allocated 10.0.0.x IP addresses of each client in the Computer Names list under the Network Status window -> Actions section for all clients and server. It was very stable without any hiccups throughout the contest. However all the station operators involved were not computer buffs and to avoid additional manual entries we moved to a DHCP based system also provided by the Softether server side and the 6 stations connecting had no problem at all. We kept the DHCP lease time at 48 hours so that any station disconnecting during the contest could come back and get the same IP address from the DHCP pool. Without this the N1MM network status window would complain about the station connecting form another IP address and the only fix for that was to restart the Master instance of N1MM Logger+ on the server.

These stations could also access the Internet through the VPN pipe - without the DHCP system and server gateway allocation the remote stations lost their Internet connectivity last year. That was boring for them during lean periods when no one replies to CQs and hence this fix was in big demand :).

Please check out and let me know if there are any issues with this - I will be happy to answer questions to the best of my ability and update the manuals based on feedback received. I am sure we can refine this into an even better document.

Before I finish, I must really thank Brian N9ADG who pointed me in the direction of Softether VPN and even did a lot of hand holding as we set up for AT1HQ in 2016. Thank you Brian!

73 de Prasad VU2PTT, W2PTT (ex-AF6DV)

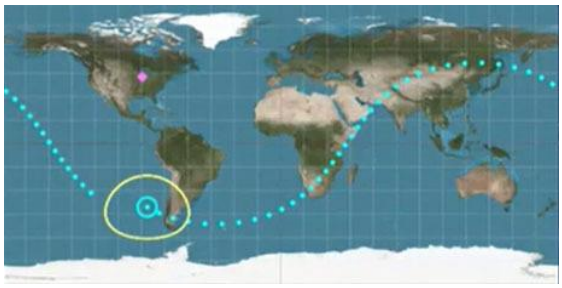
ARSI, ARRL, FOC, CWOPS, , MARC
NCDXF, INDEXA, SCCC, EUPSK
ARRL DXCC Card Checker
CQ Awards Checkpoint
Coordinator - VU Contest Group www.vucg.in
Webmaster - Logger32 www.logger32.net

Free Ham Radio Satellite Tracking App for iOS

Tom Doyle W9KE has released a free satellite tracking App called Satellite Explorer Pro for the iPhone, iPad and iPod Touch

Satellite Explorer Pro can be downloaded from the iTunes store at https://itunes.apple.com/us/app/satellite-explorer-pro/id669039200

Ham Radio Satellite Explorer App for Windows 8 devices https://amsat-uk.org/2013/01/26/ham-radio-satellite-explorer-app/



SimpleSat Look Down PC satellite tracking software now available

https://amsat-uk.org/2012/06/12/simplesat-look-down-v1-0-now-available/

For those with Android devices there is a different Satellite Tracking App produced by G4DPZ – AmsatDroid Free On Google at

https://play.google.com/store/apps/details?id=uk.me.g4dpz.HamSatDroid
On Amazon at http://www.amazon.com/G4DPZ-AmsatDroid-Free/dp/B00DK7XXYK/

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