Amateur RADIO Society News
Newsletter of the Amateur Radio Society of India (Indian Affiliate of IARU)
April 2014 Issue

President's Message

Dear members

The past few months saw a lot of activity by our members in the Dx forum and in contests.

A group of members went to Lakshadweep and operated as VU7AG. They clocked over 55,000 contacts and it was most gratifying that the expedition was voted the fifth worldwide, a tremendous achievement when so many high budget expeditions also were in the running. Many of our members also took part in contests and achieved creditable scores.

ARSI is promoting contesting in a big way and a VU Contest group has been set up to coordinate this activity. Those who are interested should contact VU2PTT OM Prasad who will give you details.

Please visit our webpage www.arsi.info and give your suggestions on what you think is additional information that can be put in. the webpage is only as useful as members make it, and so suggestions are welcome.

We are approaching our next Hamfest being conducted in Hyderabad and we look forward to a large gathering- big plans are afoot to make it a grand success.

The Hamfest 2014 webpage is now live and registrations are open. ARSI will participate in the Hamfest. We hope to conduct our national field day and hill-topping exercise again this year, please look out for details.

73, de Gopal Madhavan VU2GMN

From the Editor's Desk

CUBESATS are so popular now, the year 2014 may well be THE YEAR OF THE CUBESAT. We're hearing reports of cubesats being launched by universities all over the world because this is a cost-effective independent means of putting a payload into orbit.

Sol doesn't seem to be waking up – *solar max* has totally fizzled out – a huge disappointment to us. Looks like we may have to wait for the next solar max, HI

Meantime, we wait for details of the outcome of the **PR4 AMATEUR RADIO EXPO** being held this month by the Wireless Institute of Australia – highlighting the relevance of Amateur Radio in this highly technological age. The question was: "*Just because Amateur Radio is hundred years old, should we continue it?*"

73 de-Ganesh VU2TS

New medium wave beacon

A radio propagation beacon on the new 630 Meter band has begun in Australia and it encourages reports of its reception.

It sits just below the AM broadcast band and is now available to radio amateurs in a number of countries.

The band 472 to 479 kHz was granted to VK radio amateurs on January 1 2013 after the World Radio Communication Conference approved the 7 kHz wide secondary allocation.

The 473 kHz beacon is at Mildura in northwest VK3 on the cross-roads of Australian capital cities of Melbourne, Adelaide and Sydney. Strategically located it also aims to further stimulate activity on the band.

The project is the work of **Noel Ferguson VK3FI** who built it based on a circuit designed by fellow home-brewer Drew Diamond VK3XU, with changes made mainly for available components.

It identifies as VK3FI Mildura followed by 20 seconds of carrier, radiating from an L-antenna against a mast, plus seven radials and some 27 earth stakes.

The beacon is currently turned on at 1100 UTC part-time when VK3FI is present.

Reception reports are most welcome to vk3fi@wia.org.au

Send your name to an asteroid!

NASA is inviting people around the world to submit their names to be etched on a microchip aboard a spacecraft headed to the asteroid **Bennu** in 2016.

The *"Messages to Bennu"* microchip will travel to the asteroid aboard the Origins Spectral Interpretation Resource identification Security Regolith Explorer, or OSIRIS-REX, spacecraft. The robotic mission will spend more than two years at the asteroid, which has a width of approximately 1,760 feet (500 meters).

The spacecraft will collect a sample of Bennu's surface and return it to Earth in a sample return capsule.

The deadline to submit names online is Sept. 30, 2014. Participants who submit their names to the "Messages to Bennu!" campaign will be able to print a certificate of appreciation to document their involvement.

For more information and to submit your name, visit http://planetary.org/bennu..

Questions about this opportunity should be directed to tps@planetary.org.

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MORSE CODE IN CLASSICAL MUSIC?

Ludwig von Beethoven composed a total of nine symphonies, the fifth of which was composed in 1807 and performed in Dec.1808. Beethoven originally named it the SYMPHONY OF DESTINY. The opening of the Fifth Symphony goes like this:

DI DI DI DAAHH.

Samuel Morse lived between 1791 and 1872 but it's a safe bet that Beethoven hadn't the foggiest notion of Morse-code! After all, Samuel Morse was only 17 years old when Symphony No.5 was first heard! Now, let's jump to WW-II.

In July 1941 BBC radio launched 'V for Victory', a propaganda campaign that encouraged listeners across Nazi-occupied Europe to show their support for the Allies by scrawling the letter V wherever they could. "Splash the V from one end of Europe to another," said Colonel Britton, the assured voice of the European service.

The idea was inspired by Victor de Laveleye, a Belgian working at the BBC, who told his countrymen to use the letter V as a "rallying emblem" since it is the first letter of the French word for victory (victoire), the Flemish word for freedom (vrijheid) and, of course, the English word victory, making it a multinational symbol of solidarity.

Not long after the July broadcast, Douglas Ritchie, the 36-year-old news editor who went by the on-air pseudonym of Colonel Britton, realized that the three staccato notes and one long note at the start of Beethoven's 5th Symphony echoed the Morse code for the letter V (dot-dot-dot-dash). Ritchie made it the theme song for his radio programme and listeners began to replicate the sound any way they could as a symbol of resistance.

Locomotive engineers blasted the dit-dit-dit-daahh on their whistles, for example. Across occupied Europe people daubed the V symbol and tapped out the sound to show their solidarity and demoralize the occupier, who could be in no doubt that he was, in the words of Laveleye, *"surrounded, encircled by an immense crowd of citizens eagerly awaiting his first moment of weakness, watching for his first failure".* VU2TS–Ed

AMATEUR RADIO DIRECTION FINDING

Gary Pearce/KN4AQ shows what's involved in ARDF. What with Fox Hunts becoming so popular, the video has some useful tips. Watch it at:

https://www.youtube.com/watch?v=y-tLH0HzO8g

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AMATEUR RADIO: GATEWAY TO WIRELESS COMMUNICATIONS

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HAM RADIO IN THE NEWS

By Elizabeth McSheffrey, Grande Prairie Daily Herald-Tribune Canada

Thursday, March 6, 2014

Amateur radio is a hobby and a service which can be traced back to the 19th century when sailors began using the telegraph to communicate with their counterparts on the mainland.

"Ham is just a name for amateur radio," says John Gilje, "it's more like a nickname and no one really knows where it came from."

Gilje is a director of the Peace Country Amateur Radio Club (PCARC) and has been 'hamming' for more than 20 years.

Amateur radio is about more than static, dials and knobs, he says – it's a sophisticated method for spreading a message.

"It's the latest," he explains. "Ham radio is ahead of everybody else.

"We talk to one another; we also experiment and do emergency services. When the power goes out, we still operate."

Amateur hams are inventors, says Gilje, who remembers using radio as a form of cell phone and Internet before the technology became widespread.

Today, hams all over Alberta are in involved in natural disasters and search

and rescue missions for their expertise in wave communication.

"We were in Slave Lake in the fires, we had a truck and trailer out there," he says, "and we had quite a few people in the floods in southern Alberta who provided communications when the rest of the communications went out."

But not just anybody can be an amateur radio operator, he explains – every frequency in Canada is regulated by the federal government.

Officials issue licences to amateurs on a case-by-case basis, on the promise that they will stay within their assigned frequencies.

"You have to take a course and pass a test," says Gilje. "You have to know a bit about radio theory, how it operates and how it doesn't.

"Then you have to have information on all the rules and regulations."

The Peace Country club has more than 40 members, each with his or her own unique radio call sign.

The group works with local Boy Scout troops and goes on an annual 'field day' to connect with hams from around the world while camping out in the wilderness.

"It's a bunch of fellows that enjoy working with radios and we are licensed to operate on our own frequencies," says the director.

"Every Saturday morning at the Army and Navy Club we have a breakfast meeting… and there are executive meetings once a month."

Hall of Fame connection

The club has been around for more than 30 years, and its history is rich with renowned Canadian hams.

Earle Smith, a former member, was recently appointed to the Canadian Amateur Radio Hall of Fame after his death in February 2012.

"It's quite something," says Gilje. "There is usually only one (person) a year and for someone from Grande Prairie to get it is amazing."

Smith, also known as the call sign 'VE6NM,' was a president of Radio Amateurs of Canada, and an executive with the Amateur Radio League of Alberta, the Canadian Radio Relay League and the Canadian Amateur Radio Federation.

After his passing, the American Radio Relay League released a bulletin calling him a "Ham's Ham and a Man's Man."

"He was a terrific guy, terrific," says Gilje, "He would help you out in any way he could.

"He supported amateur radio and really promoted it."

Smith was well known around the world, he explains, and connected with hams across North America, Mexico and Europe.

As more and more of these amateurs age, says Gilje, the importance of engaging the next generation becomes paramount.

"We've had a lot of older groups of people and they're starting to die off," he explains. "Getting young people involved is what we're trying to do."

Anyone is invited to come and see PCARC members in action, says Gilje, as they get on the wire all over the globe.

In good conditions, he says, radios can reach incredible distances without a lag in the conversation.

"You have set up your radio and antenna, you tune your antenna and in some cases, point it up a road or to wherever you want to talk to," he explains. "Then you just get on the air and ask if anybody can hear you."

Most of the time, he says, somebody unexpected will answer you back.

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OSCAR-11: 30 years in orbit!

UOSAT-OSCAR-11 has now been in orbit for 30 years and remarkably its signal on 145.826 MHz FM (AFSK 1200 bps ASCII) is still being received. OSCAR-11, also known as UOSAT-2, was designed and built by a team of engineers at the University of Surrey in Guildford, Surrey, UK as the successor to OSCAR-9 / UOSAT-1 (see Hobby Electronics August 1981). It was launched from the Western Test Range at Vandenberg Air Base, in Lompoc, California along with LANDSAT-5 on a Delta 3920 rocket on March 1, 1984.

OSCAR-11 was the most rapidly designed OSCAR, going from inception to launch in only five months. It was also the first amateur satellite to carry a digital communications package into Earth orbit, and the first to be controlled by a CPU running software written in the high-level programming-language--"Forth"

OSCAR-11 carries beacons in three amateur radio bands.

The 145.826 MHz beacon transmits FM Audio Frequency Shift Keying (AFSK) 1200 bps ASCII data. It the early years it also transmitted a voice message from the digi-talker-experiment.

The 435.025 MHz beacon transmitted either 1200 bps FM AFSK or 4800 bps PSK data. This beacon was used to downlink information from the Digital Store and Readout (DSR) Experiment, which includes CCD Earth image data, results from the Particle Wave Experiment, and engineering data from the RCA COSMAC 1802 CPU.

The 2401.5 MHz beacon transmitted FM and PSK signals. Antenna polarization for all three beacon transmitters is left-hand circular (LHCP). Only the 145.826 MHz beacon is now operational. Tnx:-AMSAT-UK

Gwalior Hams provide communications during Shanichara Mela.

The District Megistrate of Morena (M.P.) requested Gwalior HAMs to assist at the time of Shree Shanichara Mela on 28 Feb. to 2 March 2014 to be held at Shanichara Temple about 20 kms from Gwalior. Amateur Radio club Gwalior team headed by Jayu S. Bhide VU2JAU, Harsh Chaturvedi VU2HRR, Shubham Tiwari VU3SXN, Aniket Ashtikar VU2LOL, Kailash Agrawal ex VU4KC, SWL Vivek Joshi and SWLs who are still waiting for HAM tickets did a great job at the time of Shanichara Mela. A VHF station was set up at Shanichara Temple and at DM Bunglow at Morena about 22 kms away to have continuous communication with Collector Morena. It was a great success 24 hours VHF communication was possible to give information of Mela. We had VHF contact with Gwalior HAMs also about 20 kms away. It was a good experience to all Gwalior new HAMs and the swls who are waiting for their license.

Few officials of Morena administration were assisting and learning the operation and the process of using equipments from Gwalior HAMs and moving in to the crowd to give exact information to control point which was handled by Jayu VU2JAU .

The preparation of the event started about a month back by erecting a tower for VHF 5/8 vertical antenna at Shanichara Temple and DM Bungalow. Few mobile vehicles were kept ready and tested on the A.B.Road to have communication at the time disaster if occurred. The whole operation was under disaster communication authority of Morena.

A special event call sign was also allotted as AU4SHA. It was on the air till 2 March 2014. During this period Italy, Spain, Indonesia, Germany and many more countries were contacted. The transceiver used was a Kenwood TKM 707 Marine Transceiver along with 20/40 inverted Vee antenna.

At the end of the event the Collector of Morena himself visited the station to congratulate all the HAMs for successful operation. It was appreciated by other DMs like Bhind and Gwalior also and surprised and thrilled to see effective and quick communications.

73 De Jayu S. Bhide VU2JAU

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Ham Radio Will Play a Role In 'Hi-Seas' Simulated Mars Mission:

When Ron Williams, N9UIK, and his fellow "astronauts" head to "Mars" this spring, they'll have Amateur Radio along, just as NASA space travelers do. Williams is part of Mission 2 (of four) in the Hawaii Space Exploration Analog and Simulation or HI-SEAS http://hi-seas.org/, in which participants will simulate living and working for 4 months within a Martian outpost -- actually a solar-powered dome at a remote site some 8000 feet up on the slopes of Mauna Loa. Conducted by the University of Hawaii and Cornell University, the project has partial funding from NASA.

"This will simulate the distance, when greatest, between Earth and Mars," explained Williams, a clinical neuropsychologist from Indiana. At 60, he's the oldest member of the team; the youngest is 26. Williams is one of two hams on this crew increment. The other is Ross Lockwood, VA6RLW, of Alberta, Canada. "Our proposed outreach simulation to the Amateur Radio community will also involve this signal delay," Williams continued. Part of that will mean integrating a 20 minute signal delay into all communications, whether via Amateur Radio or the Internet. "To the best of our knowledge, this will be unique to any Amateur Radio special event ever conducted." HI-SEAS also was able to obtain the special event call sign K6B for the project for nearly the entire length of the mission, instead-of-the-typical-15days.

AMATEUR RADIO: GATEWAY TO WIRELESS COMMUNICATIONS

ISS HamTV Success

On Saturday, March 8 test transmissions were made on 2422.0 MHz using the HamTV equipment on the International Space Station (ISS) The video was successfully received and was web streamed to a global audience via the Britsh Amateur Television Club (BATC) server.

There were four live web streams each from different-receivers.

The HamTV transmitter is the culmination of over ten years work by dedicated volunteers to establish an amateur radio TV transmitter on the ISS. It uses patch antennas fixed on the Meteorite Debris Panels (MDP) protecting the hull of the ISS Columbus module. These antennas were installed while the Columbus module was being constructed.

A fund-raising campaign took place during 2005-7 to raise over 65,000 Euros for the antennas. Individual radio amateurs from around the world donated generously as did several organisations including AMSAT-UK and--RSGB.

The main mission of HamTV is to perform contacts between the astronauts on the ISS and school students, not only by voice as now, but also by unidirectional video from the-ISS--to-the-ground.

HamVideo is the name of the on-board DATV S-band transmitter. HamTV is the name of the complete system, comprising DATV downlink and VHF voice uplink. Kaiser Italia SRL was the prime-contractor for the design and development of the flight and ground segment.

Tnx: QRZ newsroom

http://www.kayser.it/index.php/exploration-2/hamTV

Sub-30kHz amateur signal crosses the Atlantic

In what's believed to be a first, a very low frequency signal from Bob, W2ZM in New York was heard across the Atlantic by Paul Nicholson and later by Mike Dennison, G3XDV. Bob was transmitting on 29.499 kHz under a US Part 5 Experimental licence using the callsign WH2XBA/1. His very slow-speed CW signal was initially detected in the UK just before 0000UTC on 3 March. Paul also copied a 29.501 kHz transmission from Dex, W4DEX, in North Carolina, who was operating as WH2XBA/4. Congratulations to all concerned. (RSGB-news.)

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Heard on the repeater:

Difference between OM and XYL:

An OM will pay Rs.100 for a Rs.50 item that he needs whereas an XYL will pay Rs.50 for a Rs.100 item that she doesn't need!

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GRAPHENE RADIO IS A WIRELESS WONDER

Three letters beamed across a lab bench may spark a wireless revolution. A transmission of the letters IBM was received by the first working radio chip to be made from graphene.

Graphene *is a 2-dimensional, crystalline allotrope of carbon. In graphene, carbon atoms are densely packed in a regular atomic scale chicken mesh (hexagonal) pattern. In fact, Graphene can be described as a one-atom thick layer of pure graphite. It is the basic structural element of other allotropes, including graphite, charcoal, carbon nanotubes and fullerenes...*

High-quality graphene is strong, light, nearly transparent and an excellent conductor of heat and electricity. Its interactions with other materials and with light and its inherently two-dimensional nature produce unique properties, such as the bipolar transistor effect, ballistic transport of charges and large quantum oscillations.

In 2011, IBM researchers made a radio micro-chip with graphene transistors but placing necessary metal components on top of the transistors damaged them and the chip could not receive any signal. Scientists at the IBM Lab in New York found a way to put the metal parts on the chip first and then add the transistors. The device worked perfectly.

The Graphene based circuit uses considerably less power than normal chips, making it attractive for use in wearable radio devices.

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THEME FOR 2014 AMATEUR RADIO DAY

The International Amateur Radio Union Administrative Council has designated "Amateur Radio: Your Gateway to Wireless Communication" as the theme for World Amateur Radio Day 2014. This ham radio holiday is celebrated each year on April 18 to recognize the anniversary of the founding of the International Amateur Radio Union in Paris, France, back in 1925. The primary

purpose of World Amateur Radio Day is to focus a public spotlight on Amateur Radio and its benefits to countries and communities. This year the International Amateur Radio Union and its member-societies around the world will celebrate the Organization's 89th anniversary.

VU2TS-Ed

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MDSR V2.8 SOFTWARE NOW AVAILABLE

Modulator Demodulator Software Radio or MDSR has upgraded its software to bring radio amateurs the best audio quality out of your existing analog rig. This, by turning it into an Intermediate Frequency Software Defined Radio.

According to the MDSR team, a simple and reversible modification on many analog transceivers is all it takes to connect the down converter to a sound card of the computer running Windows XP, Vista, 7, 8. MDSR works with any symmetrical HF transceiver. Best of all the MDSR version 2.8 software is free to use for amateur radio Operators. More about it is at tinyurl.com/mdsr-2014. Just click on MDSR kit and Installation. (MDSR Team)

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"April fool's pranks are well-established traditions in the publishing world, and *QST* magazine is no exception," said *QST* Editor in Chief Steve Ford, WB8IMY. "The April Fool's tradition in *QST* goes back decades. Search the old issues and you'll find some very clever items."

The April 2014 issue of *QST* contains three April Fool's pieces, according to Ford. "Some are more obvious than others. We'll be curious to see how many readers spot the jokes."

No pranks in this issue of H R N!

Kovalam Vizigam Lighthouse ARLHS 121 Activated

I have received info that Anil/VU2FA activated the KOVALAM (Kerala) lighthouse and operated the special call **AT5LH** between 1st and 15th March 2014.

Heard AT5LH on 10 meters CW working split - with a S-9 signal during the Commonwealth Contest weekend, but no luck in getting through the EU pileup on him, Hi The licence is issued in the name of Sangeeth/VU2SDF/A45WH. - VU2TS-*Ed.*

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LONG DELAY ECHO - LDE

I was quite active on AO-13 - and when the satellite was farthest from earth – about 36,000 Km, I used to hear my own signals return after a gap of about quarter of a second. The to-and-fro distance of 72,000 KM is roughly one-quarter of the speed of light. I used this in demos to students to show them that the radio signal travelling at the speed of light takes quarter of a second to get to the satellite and back to me.

But sometimes on the HF bands we hear an echo of the same signal with a gap of a few milliseconds. This happens most often on 20 meters when working into USA. This was also easily explained. The band-conditions being quite good for long haul DX, if the U.S. stations were pointing their beam over North, then I'd hear a strong signal first and the same signal from the back of the beam over the South a few milliseconds later.

Another explanation was that radio signals may pass the ionosphere and then be ducted

in the magnetosphere out to a distance of several earth radii over to the opposite hemisphere where they will be reflected on top of the ionosphere. The round-trip time varies with the geomagnetic latitude of the transmitter and is typically in the 140–300 milliseconds range. The further North the station, the longer the delay.

However, sometimes the echo is heard after a much longer gap – say a few seconds later. That would be a strange phenomenon indeed.

Long delayed echoes (**LDEs**) are radio echoes which return to the sender several seconds after a radio transmission has occurred. Technically, delays of longer than 2.7 seconds are considered LDEs. LDEs have a number of proposed scientific origins.

These echoes were first observed in 1927 by civil engineer Jørgen Hals from his home near Oslo, Norway. Hals had repeatedly observed an unexpected second radio echo with a significant time delay after the primary radio echo ended. His report said:

"At the end of the summer of 1927 I repeatedly heard signals from the Dutch short-wave transmitting station PCJJ at Eindhoven, Holland. At the same time as I heard these I also heard echoes. I heard the usual echo which goes round the Earth with an interval of about 1/7 of a second as well as a weaker echo about three seconds after the principal echo had gone. When the principal signal was especially strong, I suppose the amplitude for the last echo three seconds later, lay between 1/10 and 1/20 of the principal signal in strength. From where this echo comes I cannot say for the present, I can only confirm that I really heard it. "

One story that originally appeared in *Reader's Digest*, triggered my curiosity back then, just as I was just learning morse-code getting ready to appear for the ASOC exams. It told about the reception in Great Britain of a television broadcast from a Texas station over three years after its transmission!

In 1953, British viewers reported seeing the test pattern of TV station KLEE out of Houston. They realized that the broadcast was more than two years old only when they discovered that KLEE had changed call signs to KPRC in 1950!

Many scientists tried investigating these echoes but due to the sporadic nature of the echo events and variations in time-delay, did not find a suitable explanation.

Radio waves of frequency less than about 7 MHz can become trapped in magnetic field-aligned ionization ducts with L values (distance from the center of the earth to the field line at the magnetic equator) less than about 4. These waves after being trapped can propagate to the opposite hemisphere where they become reflected in the topside ionosphere. They can return along the duct, leave it, and propagate to the receiver.

Signals can travel around the Earth seven times in one second. Such signals are also not uncommon.

Goodacre –VE3HX reports that he pointed his antenna towards the horizon and received his own 28 MHz signal delayed by up to about 9 seconds.... His measurement implies travel up to 65 rounds around the earth." Probably the upper frequency limit for such effects.

The most popular current theory is that the radio signals are trapped between two ionized layers in the atmosphere and then are guided around the world many times over until they fall out of a gap in the bottom layer. (Ducting propagation between air layers in the lower atmosphere is a well understood phenomenon.)

Another possibility is Mode conversion: Signals may couple to plasma waves in the upper ionosphere; investigated experimentally, they have ionosphere; investigated experimentally, they have recorded echoes with delays up to 40 seconds at 5–12 MHz.

The extra long delay – of a few years – has not been explained, but who knows? One day I might hear myself calling CQ DX on 20 meters?

73 VU2TS-Ed

AMATEUR RADIO: GATEWAY TO WIRELESS COMMUNICATIONS

ARSI QSL BUREAU

All QSL bureaus worldwide face rising demand, costs and limited resources. Help to speed up processing and cut waste for everyone, by being a Responsible QSLer

7 Simple things you can do…..

1. Simply ask new contacts, "Do you need my QSL card? – Every time. Or, if you want his card, please ask for his QSL card/route.

2. If you don't QSL, be polite but honest during your contact – "Thanks but no thanks" is all it takes. Let it not be a one-way QSL.

3. Please don't say you do when you don't, or ignore the other guy's kind offer, otherwise wasted cards will be sent.

4. QSLing 100% outgoing personally can be expensive. For some, 50% appears to be the average collection and return rate – think before you send. Use your QSL Bureau – you can make it almost 100%

5. Make your QRZ.com QSL details very clear, at the top of the page - not at the bottom. Not everyone reads everything.

6. If you change your QSL status remember to amend your page - don't ignore it.

Finally…. Responsible QSLing…

Always collect your incoming cards even if you don't reply. We have to sort and ship everything just to find the wanted cards. It only costs a stamp, so please support your bureau by being responsible for the cards your QSOs generate.

QSL IS THE FINAL COURTESY OF A QSO!
SUPPORT YOUR QSL BUREAU!

New frequencies for French radio amateurs

The minutes of the March 7 meeting between the French National Society **REF** and the communications regulator **ARCEP** have been published

French radio amateurs have gained access to 472-479 kHz with 1 watt output in Region 1 and territories in Region 2. Discussions also covered the possibility of an amateur allocation across the whole of 1.8-2.0 MHz and possible future allocations at 5.5 MHz and 70 MHz.

435-438 MHz is now allocated to the Amateur-satellite service for both Earth-to-Space and Space-to-Earth in Region 1 & territories in Region 2. Due to a previous error in the national frequency table French amateurs did not have Space-to-Earth for this band in their license.

The 2400-2415 MHz band is now allocated to radio stations in the Amateur-satellite service in French territories in Region 2.

Regarding the 1.2 GHz band the REF wondered if the Galileo GPS satellites, which broadcast across 1260 to 1300 MHz, may call into question the allocation of this portion of the band to the Amateur Services. The ARCEP said they would review this matter and provide a response.

The REF report the ARCEP had shown an interest in the ARISS school contacts which have a high educational value.

Minutes of the meeting between ARCEP and REF March 7, 2014 in Google English
http://tinyurl.com/REF-ARCEP-Minutes-2014-03-07

[Tnx Southgate ARC news]

Dave, K1TTT has released the 30thAnniversary edition of his 700-page+ book http://www.lulu.com/spotlight/k1ttt on building a superstation, including lots of pictures of towers and antennas as well as other cool stuff. The e-book PDF version is free. But if you want a paper-back, it will cost you $132/-

Mike Rupprecht DK3WN has released four new amateur radio satellite telemetry decoders Apps: They are for these satellites:

• LitSat-1, 145.845 MHz, 9k6 FSK, beacon, KISS file

• LituanicaSat-1, 437.550 MHz, 9k6 FSK, KISS file

• STARS-2, 437.245 MHz, CW as text

• TeikyoSat-3, 437.450 MHz, CW as text

The download page in Google English is at http://tinyurl.com/SatSoftwareDK3WN/

Pigeon vs telephone: which worked best in the trenches?

This BBC World War 1 documentary describes the various forms of communication systems used in the trenches

It covers:

- Telephones and telegraph
- Runners and dogs
- Visual signaling
- Radio
- Pigeons

Watch/download the videos at http://www.bbc.co.uk/guides/zw6gq6f

Ham Sailor Completes Solo Circumnavigation

She's a grandmother, a retired math teacher and a ham. And now, 70-year-old Jeanne Socrates, **KC2IOV** can add *solo circum-navigator* to her resumé.

On July 8, 2013, Socrates returned to Victoria, British Columbia aboard her 38-foot sailboat, "Nereida", after a non-stop solo voyage around the world that began there on October 22, 2012. Ham radio was her main communications link during the nearly nine-month voyage.

The ***ARRL Letter*** reports that Socrates also had a satellite phone on board but it died a couple of months into the trip.

Between October and May, she used ***Winlink*** On the HF ham bands to send e-mails and update her blog, at <www.svnereida.com>. But then her computer failed as well, and her group of regular ham contacts used SSB to collect updates from Jeanne and post them on the web.

Socrates used the trip to raise funds for Marie Curie Cancer Care, a UK-based group that provides free home-based care for terminally-ill cancer patients.

In the words of N7LWF, who first brought this story to our attention, the trip "not only highlights what a 70-year-old woman can do, but also what ham radio can do."

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24 GHz EME record

The distance of 17,405.6 kms is a new world record for moon bounce on 24 GHz, following a contact between **Rex Moncur VK7MO** and **Charlie Suckling G3WDG**.

It was quite an achievement on March 5, with Rex VK7MO who located to the high Mt. Wellington near Hobart to minimize water vapour that attenuates 24 GHz signal, and to take advantage of the Moon being close to Earth.*

The Moon had to be at low elevation which meant the signal had lots of atmosphere to travel through.

The moon bouncers are pleased with the outcome, which again sees VK7 hold the world distance record.

Jim Linton VK3PC

****FYI: The distance to the Moon varies over the course of the orbit of the moon, from 363,104 km at the perigee (nearest) to 405,696 km at apogee (farthest), resulting in a differential range of 42,592 km. –Ed***

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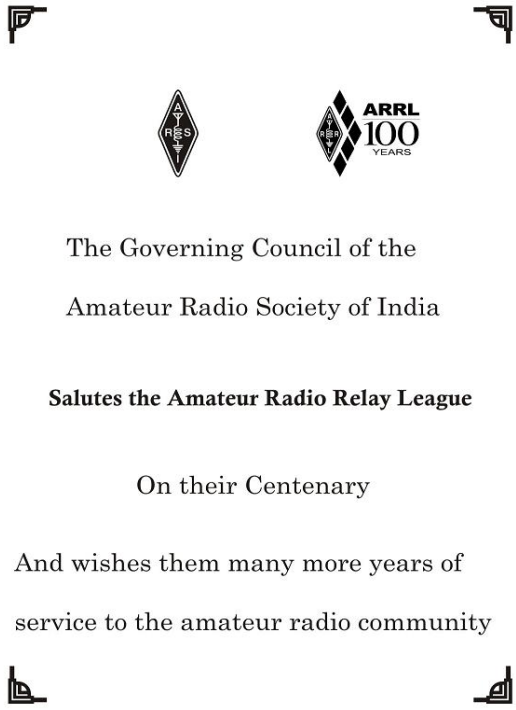
"A Century of Ham Radio"

This ARRL video celebrates a 100 years of Amateur Radio and the ARRL has released "A century of ham radio" Produced by: ARRL, the U.S. National association for Amateur Radio, (c) 2014. Narrated by Becky Schoenfeld, W1BXY, QST Managing Editor. Watch it / download it:

http://www.youtube.com/watch?v=JerSTUDqI7s

The following plaque was sent to ARRL



Soon: Two Geostationary Ham Radio Transponders

AMSAT-DL President, Peter Guelzow DB2OS has confirmed there will be two amateur radio transponders on the Geostationary **Es'hail 2** satellite planned to launch at the end-of-2016.

Peter has provided the following information:

Es'HailSat-2 will carry two geostationary "Phase 4" amateur radio transponders!!

As a result of a concept proposed by the Qatar Amateur Radio Society, Es' Hailsat, the Qatar Satellite Company, have announced that their new, geostationary, Es'HailSat-2 communications spacecraft will provide transponders for use by radio amateurs. The spacecraft is expected to be ready for launch by-the-end-of-2016.

Es'HailSat-2 will provide a 250 kHz linear transponder intended for conventional analogue (e.g. SSB / CW) operations in addition to another transponder which will have an 8 MHz bandwidth. The latter transponder is intended for experimental digital modulation schemes and DVB amateur television.

Precise uplink and downlink frequencies remain to be finalized but the uplinks will be in the 2.400-2.450 GHz and the downlinks in the 10.450-10.500 GHz amateur satellite service-allocations.

Both transponders will have broad beam antennas to provide full coverage over about 1/3rd of the earth's surface. Precise operational plans will be finalised over the coming months but it is anticipated that only quite simple ground equipment will be required to use this satellite.

The new satellite, which is expected to be launched by the end of 2016, will operate at 26-degrees-east.

It will provide first Radio Amateur Satellite Corporation-(AMSAT)-geostationary communication capability connecting Brazil to India in one single hop and in real-time. It will allow the AMSAT community to validate and demonstrate their digital video broadcasting standard. Tnx: Southgate ARC