URL: http://www.qsl.net/rssl

RSSL NEWS

MAY 2006 | THE MONTHLY NEWSLETTER OF THE RADIO SOCIETY OF SRI LANKA

The General Meeting for the Month of May will be held at the Seminar Room (Ground Floor) of Sri Lanka Association for the Advancement of Science (SLAAS), Vidya Mandiraya, 120/10, Vidya Mawatha, Colombo 7 on Wednesday, May 31st, 2006 at 0530 pm.

MONTHLY MEETINGS

Please note that unless otherwise notified, monthly General Meetings will be held at SLAAS at 0530 PM on the **last Wednesday of the month**. Please also monitor the RSSL net regularly on 145.625 MHz at 0900 PM and 145.650 MHz at 0930 PM for announcements of RSSL. You are welcome to contact any Council Member if you need to verify. Membership and ID Card Applications can be obtained at the meetings. Membership renewals are accepted by the Treasurer at the monthly meetings. Renewals can also be done by posting a cheque or money order to him.

OBITUARY- S.M.W. S SENANAYAKE 4S5WS (Sene)

Corporate member of RSSL,15/4, Heerassagala Rd., Mulgampola, Kandy passed away after a brief illness. Sene was an old timer and a very active member from the 1950s. He was a railway man and despite being an SWL until very recently, participated actively and attended meetings in the John Amaratuinge era. He and the late D.P. Pathmaperuma (Paths) were great pals and often came in to the meetings together. He was A good technical man who enjoyed the valve era. Sene's funeral was attended by many of his ham friends. The RSSL was represented by 4S7VJ, 4S7KG and 4S7VK along with a floral tribute to Sene. We extend our deepest sympathies to his family and his RSSL member son Upul. Sene will be missed by many. (Ed.)

COLOMBO REPEATER The Storner repeater was installed at the HNB Tower recently and it was working properly for few weeks. It has been subsequently shut down due to a malfunction that continuously placed the repeater in the on state. (4S7NI)

SPECIAL EVENT STATION AT THE ANANDA COLLEGE

RSSL was to operate a special event station at Ananda College with the objective of giving a practical demonstration to students. This station was to go on air from 0230 to 0400 pm on May 17th((4S7NI)

NEW MEMBERS

Following persons were either admitted or upgraded to respective grades of membership indicated below:

Mr. M.L.M. Hussain 4S5ML	**Corporate**
Dr. U.R. Attygalle	**Associate**
Dr. T.K.G.S. Sumathipala	**Associate**
Mr. L.S. Weerakkody	**Associate**

RSSL WEB SITE

The RSSL Web Site hosted at the QSL.NET is being updated by Web Master OM Kusal 4S7KE. Meanwhile, replacing present site with a completely new design is under consideration (4S7NI)

4S7AB now connected to the Sun, the ultimate power source - Kamal 4S7AB

My interest towards solar power came when we had long hours of power cuts in 2003 due to shortage of rain in the country. Sri Lanka's energy is heavily dependant on hydropower but now there is a tendency to move towards thermal power and wind power as a solution in the long run. As radio amateurs, we need to think about alternative energy sources for powering our stations. This is not only as a solution to the ever climbing energy cost but also as a way of preparedness for difficult times.

Today my entire ham station runs using solar power all the time. The charged batteries can survive 3 to 4 days without sunlight. Anyway the activity levels go low in rainy days due to lightening etc.. Further, if I can utilize few more batteries in parallel, then I will be able to increase the survival time too. Another good thing about using solar power is that now I am always concerned about reducing my output power levels and managing the battery power. This also directs me to use more power efficient modes like CW, PSK31. MFSK etc..

This small write-up is about the way I have utilized solar power to power my entire ham radio station.

I was able to buy two 36W panels from a person who was selling some of his old panels in April 2005. Initially these panels were directly connected to a 12V motorcar battery and the controlling of charging was done manually. The panels were giving 18V at 1.8A in short circuit. When they are connected to the battery in parallel, they produced about 1A to the 12V battery. The panels were laid on the roof horizontally.

But it was very clear that when the panels are placed directly facing the sun, the efficiency becomes considerably higher. Therefore, I have decided to mount the panels in a mechanical arrangement, whereby I can

turn the panels automatically to the sun. The picture shows the result of this.
The rotating mechanism is home designed using a geared wiper motor of a Toyota FB-14. It has two speeds and turns both ways when the polarity is reversed. Then there is another mechanism to slow the movement further down and product much higher torque. This mechanism was designed to mount four (4) panels in the axis.
The frame was constructed using a heavy gauge 3/4 inch GI pipe. The upside down 'T' sections prevents the assembly from falling over. In windy areas, some more supporting might be required.
There is also another limit switch at the other end of the axis . This was constructed using a modified wiper motor. This prevents the panels from turning around continuously if some malfunctioning of the controller circuitry occurs.

The panel rotation controller

The controller circuitry uses a PIC microcontroller 16F84. It takes care of turning the panels to the sun every 1/2 hour as programmed. Once the sun sets, it turns the panels to the sunrise position and waits for the next day. Again the turning mechanism gets activated at the sunrise and continues until sunset.

The battery charging controller.

The main function of this homebrew unit is to show the battery voltage and the charging current continuously. This unit is also programmed using a PIC microcontroller. Another important function is to disconnect the panels from the battery when a specified voltage is reached at the battery terminals. This voltage is set to 14V and the charging starts again when the battery voltage drops to 13V. This little hysterisys is important to prevent chattering relays etc.
It is very important to prevent the batteries from getting overcharged.
Finally, I should say that this is an expensive experiment but well worth the effort. Also thanks to all those who have commented about my article in the April Newsletter about HF mobile operations

ECHOLINK ON YATI REPEATER

The Yatiyantota repeater is being continuously connected to EchoLink. Since it is possible to remotely disconnect the repeater from EchoLink, members are requested to immediately inform OM Asantha 4S7AK (077-77 69 486) or OM Ranuka 4S5RD (071-47 46 352) of any kind of misuse of this facility. (4S7NI)

Contest Info - (1) Himalayan Contest 2006, CW from 0000 UTC Jun 3 to 1200 UTC Jun 4. Bands: 3.5, 7, 14, 21 & 28 MHz. Exchange: All VUs exchange the six digit PIN code, the other entities work only VUs in this contest and send serial number. All band-wise logs may be sent to vu2ur @rediffmail.com. Dead line for logs: maximum of 30 days.
(2) SEANET Contest, CW/SSB/Digital from 1200Z Jun 3 to 1200Z Jun 4. Frequencies (MHz): CW -- 160 m, 3.525, 7.025, 14.025, 21.025, 28.025, SSB -- 7.090, 14.320, 21.320, 28.320. Exchange: RS(T) and serial number. Logs due Jun 30 to tzn2@aol.com.
(3) Portugal Day Contest, SSB from 0000Z to 2400Z Jun 11. Frequencies: 80-10 meters. Exchange: RS + serial number or CT district abbreviation.
(4) GACW WWSA CW DX Contest from 1500Z Jun 10 to 1500Z Jun 11. Frequencies: 80-10 meters. Exchange: RST and CQ Zone. Logs due Jul 15 to auranito@speedy.com.ar.
(5) All-Asian DX Contest, CW from 0000Z Jun 17 to 2400Z Jun 18. Frequencies: 160-10 meters. Exchange: RST and a 2 digit number denoting the operator's age. YL stations may send 00. Logs due Jul 31 to aacw@jarl.or.jp.
(6) Summer Meteor Scatter Contest, FSK441 from 2000Z Jun 16 to 2000Z Jun 18. Frequency: 144 MHz. Exchange: Call sign, report and final acknowledgment ("Roger"). Logs due Jul 10 to golmscont @ptt.yu.
(7) Spanish Islands Contest, CW/SSB/RTTY from 0600Z to 1200Z Jun 18. Frequencies: 80-10 meters. Exchange: RST + DIE number or serial number. Logs due 60 days after the contest to ea5aen @ea5ol.net.
(8) His Majesty King of Spain Contest, SSB from 1200Z Jun 24 to 1200Z Jun 25.

Information of Himalayan Contest was provided by VU2UR. Rest was extracted from ARRL Web Page at www.arrl.org/contests/months/jun.html.

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Printed Matter

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