

NEWSLETTER-AMSAT-EA

07/2018
JULY

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Translation by Fernando EC1AME

AMSAT

SIRIUS SAT-1 and 2

Wait for their deployment from the ISS later in august during a spacewalk. They plan to use the Progress cargo unit to deliver both sats to the ISS on july 10. Be ready:

SiriusSat-1 (SXC1-181) callsign RS13S beacon 435.570 MHz

SiriusSat-2 (SXC1-182) callsign RS14S beacon 435.670 MHz

RECEPTION OF DSLWP-B WITH A 7 ELEMENTS YAGUI

On june 22 , Daniel Estévez, (EA4GPZ / M0HXM) informed about the reception of the lunar microsat DSLWP-B using an arrow antenna. This reception was done between 9-11pm. This satellite sends telemetry every 10 minutes in GMSK on the frequency of 435.400 and FT4G.

Daniel used the UHF part of an arrow antenna in horizontal polarization using a tripod and pointing it towards the moon. The receiver was a Funcube Dongle Pro+ used with a 1 meter long RG58 cable. To record the Raw file he used Linrad with a 16 bit sample rate . The center frequency was 435.448MHz (Daniel had the intention to configure it on 435.450MHz, but, for some reason,

Linrad used 435.448 MHz). LNA gain and the dongle mixer were activated and he used a base gain of 0dB. The RAW recording was processed in GNU radio to obtain an IQ wav file at 11025 centered on 435.400MHz. This WAV file was processed with a dlswp jt4.py script.



Arrow used to receive

Distance between the DSLWP-B and Daniel's station was about 395.807 km (246.000 miles) . This is, by far, the longest distance in radio achieved by EA4GPZ. To all of those interested in receiving this satellite, it's only active during some periods of time , normally around 2 hours. The information about next operations can be found visiting BG2BHC twitter account.

ARISS REPEATER ACTIVE



In mid june the ARISS repeater was active with uplink on 437.050 FM and downlink on 145.500 .

Plenty of contacts were done with really good signals. Many EA stations did their first contacts using this repeater.

ANNOUNCED ACTIVITIES

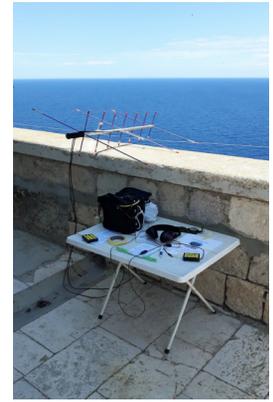
F4DXV, Jerome will be active from 3A in JN33rr on July 2.

NJ4Y, KE4AL & N4ESS, Matthew, Robert and Rich will activate EL84 (never activated) They will use the special call K4R .Find them between July 6-8

K3TRM, Frank will be active from the Cayman Islands using the call ZF2RM from June 24 till July 7 ,from Fk09.

N8HM, will be active from Poland as SP/N8HM in JO94, July 12-16.

N8R, will be active from these locators: EN74/75/76/85/86 July 10-14



9A90P, Palagruza Island

PREVIOUS ACTIVATIONS



Horizon as seen from GN37 by VO1ONE, the most Eastern point in North America

9A90P, was active from Palagruza Island, Croatia with these references: Eu090, CI-084, LH-0057 and from locator JN82dj .It was June 16-23

F/FG8OJ, Bertrand was active from JN27, JN38, IN94, IN93 June 19-30.

CU2ZG, Pedro was active from the Fumas volcano , Hm77.

2M0SQL, Peter was active from IO77/78/87/88 on June 25.



Bertrand, F/FG8OJ from JN05



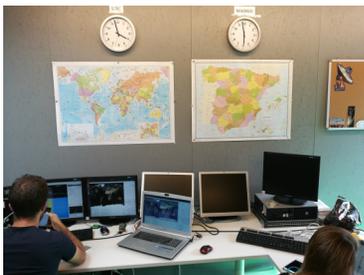
Pedro CU2ZG, Pedro @ Fumas Vulcano Hm77



EA4GSX, Miguel doing a QSO thru the ISS

AMSAT-EA HEADQUARTERS

Step by step, the new AMSAT EA headquarters are progressing . One of the antenna rotors donated by EA1KT, Cristobal, is already working .It was fixed with the collaboration of Juan EA4ETT. We hope to have the elevation rotor ready in a few weeks in order to have the control board ready for PC control.



Actually we can already get some images from NOAA. We now need more accessories and VHF-UHF antennas.



EGGBEATER 2 VHF

Taking into account the difficulty of some amateur radio ops, mostly newcomers, to buy expensive base antenna systems for satellites, here is my experience.

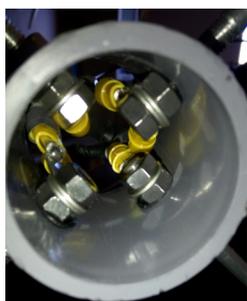
After asking about a good homebrew VHF antenna that looks good, can work without preamps and is cheap to build. I decided to build an Eggbeater 2 VHF. Why? Well, for me, just for 3 reasons :

- 1, Cheap: only about 20/30 euros
- 2, Easy to build . If I could do it, it's clear for me, anybody can do it.
- 3, It works very good when receiving low orbit sats .I can hear sats with orbit s as low as 1 or 2 degrees of elevation, including meteo sats.



Eggbeater 2 finished

I can also easily hit repeaters in my area, both VHF and UHF, even when this antenna is designed for VHF. I have it in the country side, far away from the city, QRM free area, this is also a good factor to have in mind when working satellites . Signals are not as strong as using a beam, but good enough to work satellites spending just a few bucks and without a rx preamp. No doubt this is an excellent option to keep working sats during our summer vacation period and with the satisfaction of using a homebrew antenna made by you.



Feeding point view

All technical data to build it is available in the AMSAT EA website. These are the materials I used:

- 2 rods 2,5m long and 6mm diameter
- 2 rods 1,5 m long, 6mm diameter
- 12 stainless screws # 6 (to strengthen the whole setup I did a 2 cm thread in the feeding point for a better connection feed of the antenna)
- Blind cap made of PVC (40)
- 2 meters of PVC tube PVC (40).
- 45 cm +-of rg62 for the mismatch line.

If you have problems with the mismatch line or if you don't have a RG62 cable when building the antenna, let me tell you that it works great even without a mismatch line.



The rods in place!

73,s EA5ISO

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You can collaborate with us sending articles, notes, activities or donating, which is our only way to finance

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AMSAT-EA MEMBER ID CARD

Would you like to get your member ID card like the one on the photo? As an appreciation to those who support us, we are sending out this card to members who donate, at least, 15€ to AMSAT EA. If you gave less than 15, no problem, you can complete the amount til 15 euros when ever you want.

If you have already donated at least 15 euros and want to get the card , just send us an email with the subject 'Tarjeta de socio' and send your address if it's different from the one we have on file. You can help us thru paypal or with a bank transfer.



Note: In this moment, the ID Card is only available to those who became members before January 15, 2018.

Thanks for your help

EGGBEATER II VHF

These are my conclusions about these antennas:

- VHF Eggbeater II: Omnidirectional antenna with enough performance to uplink and downlink LEO sats and a compromise antenna to work terrestrial stations with horizontal polarization .

Better performance than a Turnstyle.

- UHF Eggbeater II: This is an omnidirectional antenna to use with LEO satellites when the length of the Aircom type cable is equal or less than 10 meters. We will work with preamplifier , so they are superb if you use short length of coax cable.

EA4CYQ,
Juan Antonio

