



# NEWSLETTER-AMSAT-EA

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JANUARY

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Translation by Fernando EC1AME



*This past year was a period plenty of new goals and projects. Since mid of 2017 we begun a campaign to get new members and we got 70 new ones which make a total of 164 active members and growing each week.*

*We also started this monthly bulletin with news, articles and information we can gather together to spread it all over.*

***From Amsat EA we wish you a very happy and wonderful 2018.***

## NEW DISTANCE RECORD ON FO29

On december 13, 2017 at 1055z, Dace KC5GGI in EM35jf and Jerome, F4DXV in JN04jr made a QSO, establishing a new record thru FO29 : 7635 kms (4744 miles) , 133kms (82 miles) more than the theoretical sat footprint (7502 kms (4661 miles). This was the set up used:

KG5CCI: IC-821H (10W) +ARROW , F4DXV: FT-847 (15W)+ ARROW Dropping down to just 1w during the contact. [link](#)

## NEXT AMSAT PROJECTS

We all expect the launch in january of the new FOX1D from India onboard a PSLV-C40 and during 2018 there are plans to launch the FOX-CLIFF and FOX1E from a Falcon9 and Virgin's LauncherOne, respectively.

## WORKSHOP TALKS ABOUT OPEN SOURCE CUBESAT

The workshop called "Open Source Cubesat" was celebrated on the 23 and 24 of november at the ESOC /ESA (European Space Operations Centre) in Darmstadt, Germany , an event coordinated with Libre Space Foundation, Librecube and the Cibernetic Team ESA/ESOC ( <https://oscw.space> ).They have published several videos and playlists about the presentations and talks in the event: [link](#)

## DONATIONS

Our association doesn't charge a members fee. Our unique way to get funds is by donations. Feel free to help AMSAT EA . Just 10 € will help us to keep our job and to guarantee our efforts building the EASAT-2 (Amsat EA sat), We appreciate any help you can offer.

You can make a bank transfer or Paypal us. [donaciones@amsat-ea.org](mailto:donaciones@amsat-ea.org)  
Bank Account in Spain:

**BANKIA: ES81 2038 2470 6860 0035 1809**

## ANNOUNCED ACTIVITIES

**EA9ABV**, Diego is active on sats from IM75iv, Ceuta. He uses a Ft817nd and arrow antenna.



EA9ABV and his Arrow

**AL6D** Gabe is already in Alaska (CO28qi) from where he will keep activating greeds from his rover. Pay attention to his Twitter [@AL6D\\_Alaska](#).

**9A161NT** till december 31 celebrating the 161 anniversary of Tesla. They operate from JN85et Qsl info: 9A7R.



UT1FG, Yuri in his MM station

**EB1AO**, from jan 1 to 5 he will be active from IM76,IM86, IM77, IM87 on FM sats during spare passes. More info in twitter . [@eb1ao](#)

**UT1FG/MM**, Yuri is active again from the ship in passes over the atlantic ocean. To see his current location you can use Marinetricafic , his ship is called: Seahorse. [Link to his position](#)

## PASSED ACTIVITIES



FG8OJ from FK95



C6AWD from /MM

**C6AWD**, Wyatt (AC0RA) was active between 9 and 16 of december activating several greeds in the caribbean during his Carnival Sunshine cruise.

**FG8OJ**, Burt was in sats once from Fk95 in Guadeloupe.

**CU2ZG**, Pedro was active in xmas from HM58qb, Faial Island, Azores

## UT1FG/MM GRIDS CONFIRMATION

If you made a sat contact with Yuri and still no confirmation, please visit K8YSE website where you can see step by step instructions to get a confirmation. Just for new greeds. Check his website . [link](#)

## ISS SSTV MAI-75 RECEPTION REPORT

Information from the spanish ETSIT-UPM radio club: when they knew about the SSTV activity from the ISS between 5 - 9 of december, they decided to take part, getting a total of 5 images, with some noise and QRM. You can check the images the received in their website: [link](#)



# ISS Contacts with Spanish Schools

## EG3UPC

Monday december 4 at 15.10z the “Escuela de Ingeniería de Telecomunicaciones y Aeroespacial de Castelldefels”, near Barcelona, made a succesful 5m40seconds QSO with the ISS.

A group of 20 students were able to make questions to astronaut Mark Vande Hei in the International Space Station . Mark used the call OR4ISS. More than a year and a half preparing this contact after David Garcia Vizcaino's (assistant director at EETAC) request to ARISS Among others, this contact was possible with the help of Unió de Radioaficionats del Baix Llobregat ([www.ea3mm.org](http://www.ea3mm.org))



Setting up the antennas



Commemorative certificate given to participants



## EH2SMA

Tuesday december 12 at 14.01z... Everything was ready at the Summa Asdapeta School in San Sebastián, Northern Spain, for a QSO with astronaut Joe Acaba KE5DAR operating as OR4ISS onboard the International Space Station.

A group of 18 students made some 20 questions to Joe. As Acaba has puerto rican origins, he answered both in english and spanish. Two years to make this contact a reality.



One of the workshops

For a whole year a group of students were formed in different areas like astronomy or radio and antenna workshops. The teachers at the school wanted to thank students for their constant effort and illusion to make this communication a success.



Testing antennas on the roof

Fotos taken from the project's websites

## **EA3AGB, Javier JN00qq**

After Reading an article about satellites in the spanish ham radio magazine published by URE, I convinced myself it wouldn't be so difficult to try this part of amateur radio. It always attracted my attention but never thought seriously about getting involved in sats.

At the beginning of august I bought a Baofeng UV 5RA ht and a DX SRX 536 antenna. I downloaded the app "Amsatdroid" to track birds and then do the wt programming with the right frequencies. Then I entered the AMSAT EA whatsapp group where, at first, I was lost...all I did were making questions and trying to solve doubts. Thanks god I found there many experts willing to help rookies like me.

Now I'm working portable with a homebrew moxon and searching for good locations out of my city. Some nights I'm there out in the cold working SO50 trying to get new locators (actually I have worked 20 entities, TA, UR and RA3 among them) ...I'm so happy, and for me these dx are like working the pacific area on HF. Not so lucky with the AO85, I even thought the moxon antenna was not right for this sat , finally I got rid of AO85... but first impressions with the new AO91 are so different, so I'm sure its not a problem with my antenna as it Works great with the AO91.

Thanks to all the sat-family in AMSAT EA for you kind welcoming and I invite others to try working satellites... let's meet up there!



*Listo para un pase*

*Javier*

## **SOCIAL MEDIA**

**STILL NOT FOLLOWING US ON SOCIAL MEDIA? WHAT ARE YOU WAITING FOR?**



<https://twitter.com/AmsatSpain>



<https://www.facebook.com/AMSAT-EA-Espa%C3%B1a-128212603932305/>

*We need "reporters" everywhere, in Spain and other countries. Share with us your sat activities, experiences.*

*Are you gonna make an activation? Do you have some special experience that may be useful for others? Go ahead and share it with us to include it in our newsletter.*



# Using FM LEO sats in crowded urban areas

Juan Antonio (EA4CYQ)

**AMSAT**

A FM LEO sat is basically a ONE CHANNEL repeater with a wide coverage. When it flies over the US or Europe it shouldn't be used for long talks (you can use SSB sats for that, as they permit several simultaneous contacts). So when using FM sats, every second pushing the PTT counts. You have to be 100% effective to allow others to make successful contacts between stations in the sat channel.

When using FM satellites, the goal is to contact new stations , new grids , new countries etc... and you have to be Smart when doing it to give others a chance to do it, too, sure they also need that "new one".

When a Leo Sat foot print covers crowded areas you have to respect some basic guidelines , if not, it'll be a mess, a chaos. These rules are not intended for areas with low traffic where only a few stations are trying to make a contact, or in special circumstances like scout activities or disasters.

#	WHAT YOU SHOULD DO	INTERESTING NOTES
1	<u>IDENTIFY PRIORITY STATIONS:</u> - Stations working with a Handy antenna and low power (5W and/or hand-held). - Stations activating grids, countries or new provinces, counties etc. - Stations: /P, /M, /MM, /MA, etc. - Rookies in this mode	- Any station with a non pro installation working low power and/or in a not usual location. - We have to know they are there, so they should call mentioning their condition: /X, hand-held, rare grid, etc. - Pay attention to social media or bulletins to identify these stations
2	<u>LISTEN, LISTEN and LISTEN AGAIN.</u>	To identify the PRIORITY STATIONS , and those that, even not being a priority, are new ones in our log.
3	<u>DO NOT TRANSMIT IF YOU DON'T HEAR TRAFFIC</u>	If during a FM sat flyby over the US or Europe you hear nothing, sure it's because you are not receiving it, in that case you should avoid transmitting to avoid causing interference to any current QSO.
4	<u>AVOID TO REPEAT A QSO</u>	Have your log ready and if you have already worked a station and that station is not in a new grid, why working it again? Give others a chance!
5	<u>USE THE ICAO PHONETICS.</u>	Don't use stuff like: Baker, Honolulu, Yucatan, etc . Use: Bravo, Hotel, Yankee etc
6	<u>EXCHANGE BRIEF INFORMATION.</u>	Just the call and the first 4 digits of your grid , will do.(For example, IN80).
7	<u>DO NOT REPEAT INFORMATION THE OTHER STATION ALREADY KNOWS.</u>	If the other station had already copied our call or grid correctly, you don't need to repeat it. Just save time!
8	<u>CALL WITH YOUR CALLSIGN, DON'T USE "CQ" AND YOUR GRID/LOCATOR ONLY IF IT'S A NEW ONE.</u>	When you call give your callsign only ONCE , avoid using CQ SAT.

9	<u>LET A QSO END AND DON'T FINISH YOURS UNLESS YOU KNOW THE OTHER STATION GOT YOUR INFORMATION OK.</u>	It's not Smart to interrupt a QSO or end yours without a confirmation from the station contacted.
10	<u>LISTEN, LISTEN, LISTEN.</u>	If you hear other stations making a QSO , just write down the callsigns and/or grids. Then your QSO will be faster because you already have their information.
11	<u>IF YOU ARE A BASE STATION WITH A GOOD SET UP, AVOID TO AUTOANNOUNCE YOURSELF.</u>	- If you call a new station, the other stations will know you are there. Just auto announce yourself 3 or 4 times per pass. If you haven't heard someone new , there is no need to call back!
12	<u>"SORRY QSO REPEATED, 73".</u>	If an already contacted and confirmed station calls us , you just answer being Smart with something like "Sorry QSO repeated, 73". The other station will realize that is a lack of time to repeat a QSO.
13	<u>"PLEASE LET XX4YY/P ACCESS TO THE SAT".</u>	When one or more stations don't realize that there is a priority station in the sat frequency, you can use expressions like: "Please let XX4YY/P break in".
14	<u>USE FULL-DUPLEX, INSTALL POLARITY SWITCHING, GET A GOOD RECEPCION, REDUCE THE POWER AND PRACTICE THESE RULES.</u>	That will make you get better and better each time!
15	<u>HELP OTHERS TO BE BETTER OPERATORS.</u>	All of us were rookies sometime. All of us had a not optimized station and sometimes we occupied a transponder the wrong way...or maybe an oldtimer is just testing a new antenna. You have to be patient and try not to create a dispute thru the sat cause it will take so long, maybe he won't even hear you or other stations calling. The best option is to look for his email on <a href="http://QRZ.com">QRZ.com</a> and send him an email teaching him how to do it right. Most of the times, these stations will thank you for your help to be a better operator or to get a better station set up.

After so many years we are still fascinated when we hear our own voice coming back down from a satellite, let others take advantage of that ephemeral fact.

*Juan Antonio (EA4CYQ)  
December-2017*