



# Using FM LEO sats in crowded urban areas

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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 and oldtimer is just testing a new antenna. You have to be patience 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.

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