

# **Receiving Your First Thrilling TP on a Stock Ultralight Radio**

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**Introduction** Ten months ago, while casually tuning the AM band on a new SRF-59 in late November, early morning propagation to Japan suddenly became superb around the Japanese sunset, and JOIB-747 suddenly made a strong appearance on my tiny stock Sony Walkman-- forever changing my concepts of exciting AM-DXing. JOIB-747 is far from a rare station, and experienced TP DXers would pass it by without a second thought-- but this one thrilling reception caused a strange transformation not only in my hobby excitement level, but in my commitment to the hobby itself. Suddenly, for better or worse, a casual AM-DXer had somehow become an ultra-enthusiastic pocket radio revolutionary. Other AM-DXers had to experience this supreme excitement!

Since then, the Ultralight Radio phenomena has swept across the AM-DXing world, and provided a significant enthusiasm boost for the hobby itself. But the number of DXers enjoying the “ultimate thrill” of receiving a TP or TA on a stock pocket radio is still very limited, and as we approach the best propagation of the season, it’s time for all of you to really “go for the gold” of the ultimate AM-DXing thrill!.

**Propagation Basics** Your chances of receiving TP’s are directly related to your knowledge and use of propagation peaks. Frankly, you need some luck to make receptions like this. The odds are against you, and you need to cheat the odds. The way you do this is by using an SSB spotting receiver to constantly check propagation, and only “fight” when you have a decent chance of “winning.”

For west coast DXers, the primary TP propagation peak usually occurs shortly before local sunrise. The peak may be strong, weak or non-existent. The job of your SSB spotting receiver is to check TP carriers at this time, to tell you whether your odds are fair, poor or hopeless. There is no reason to push your luck, and waste time (and sleep). You need great propagation-- or you need to pull the switch. It’s that simple.

Around late November, the sunrise propagation peak generally starts to weaken, and there is a new early morning propagation peak to Asia, during the Asian sunset hours. All of my original SRF-59 loggings (JOIB-747, JOAK-594 and HLCA-972) were made during this peak, but it occurs at the worst possible time for working individuals (usually from 12:30 – 2:30 AM PST). This peak, while generally not as productive as the September and October sunrise peaks, does have the advantage of a longer duration, as the sunset sweeps across Japan and Korea. Once again, your SSB spotting receiver can tell you whether it worth it to try your luck (and lose the sleep), or not. As always, the loss of sleep is much easier to tolerate if you actually log TP’s with your Ultralight :>)

**SSB Spotting Receivers—the DX “Organizer”** For best results in chasing TP’s with pocket radios, the SSB receiver must be slightly superior to the ULR in both sensitivity and selectivity. The general concept is to “lead” the pocket radio to promising “targets,” where chances of DX success are the greatest. SSB receivers like the E1, ICF-2010 and ICF-SW7600GR can store multiple powerhouse TP frequencies in memory, and check carrier strength on all of them within a minute. During outstanding propagation peaks, the spotting receiver can “lead” the ULR to multiple “targets” quickly, and make the difference between a “good” morning and an outstanding one. Once the TP audio is matched between the ULR and the SSB receiver, the latter (with its superior sensitivity) can also be used to continue listening for ID’s, languages and programming clues, to provide positive TP identification if needed.

How to Use Your Spotting Receiver Many domestic DXers have never used the SSB mode to chase DX, and are somewhat puzzled by its quirks. Although SSB capability makes it easier to receive DX adjacent to strong locals, the great value of the SSB mode for TP DXers is the ability to check TP signal strength by listening to the strength of heterodyne whistles, as the receiver is tuned slightly off the TP frequency. In the LSB or USB mode, enter any station's frequency in the digital display, and if the station has any signal strength at all, you should hear a heterodyne whistle as you tune about 500 hertz off the fundamental frequency (tune down in frequency in the USB mode, and up in frequency in the LSB mode). This method can also be used to check the carrier strength of a weak domestic station, but for Ultralight TP DXers, it is the primary method we use to check the strength of possible targets. Stronger heterodyne whistles mean increasingly better chances of Ultralight TP loggings, and when the SSB receiver has actual audio on the station's fundamental frequency, the Ultralight has the best chance of making one of these thrilling receptions. The strength of the station's audio on the SSB receiver will be the deciding factor as to whether the ULR can actually "cheat the odds," and thrill its owner by receiving actual TP audio.

Preparing For this Ultimate DXing Challenge Enter the frequencies of several "powerhouse" Japanese, Korean or (during the fall) Chinese stations in the memories of the SSB receiver, making sure they are stored in the LSB or USB mode (more is written about these powerhouse stations later). Make sure these memories are stored in the most convenient spot on the receiver, since you will access them repeatedly. If you are using a digital ULR, store these same frequencies in the ULR's memories, in the same order. During the times of possible TP reception peaks (usually 30 to 15 minutes before local sunrise in September or October), constantly check the signal strength of TP stations stored in the SSB receiver's memories, using the procedure described above. If a heterodyne whistle is strong, check for actual TP audio on the station's frequency. If the TP audio is strong on the spotting receiver, it's time to grab the ULR, and try for one of these thrilling receptions. If you are lucky enough to hit a phenomenal propagation peak, you could easily receive three or four TP's on your stock Ultralight within a ten minute period... and forever change your concepts of AM-DXing excitement!

Trans-Pacific Powerhouses Only 10 Asian stations have ever been received on a stock ULR on the west coast, and the same Japanese "blowtorches" are reported over and over. When hunting for big game, you need to know everything possible about your targets-- so here is the "intelligence information" that will give you a fighting chance of success. The stations are listed in the order of your chances of logging them, from best to worst: (these are the only 10 TP's ever logged on a stock ULR)

- 1) JOUB-774 Akita, Japan (500 KW) This northern-Japan powerhouse broadcasts the national NHK2 network program, and is the most frequently reported first TP in North America. Parallel to 693 and 828
- 2) JOIB-747 Sapporo, Japan (500 KW) Depending on your local QRM situation, this booming station can be a better bet than JOUB. Carries the national NHK1 program with many foreign language lessons, // 594.
- 3) JOBB-828 Osaka, Japan (300 KW) Usually makes an appearance when the above two show up, but southern Japan location can have different propagation. NHK 2 program parallel to 693 and 774
- 4) JOAK-594 Tokyo, Japan (300 KW) Not in the same league as the big three, but can be surprisingly strong during propagation peaks. NHK1 program parallel to JOIB-747

- 5) JOAB-693 Tokyo, Japan (500 KW) Doesn't have the booming signal of the above, but easy to log when propagation is right. One of the more challenging Japanese on a stock Ultralight
- 6) HLCA-972 Dangjin, S. Korea (1500 KW) Has different propagation than Japan, and can really boom in when peaks favor Korea. Somewhat more seasonal than Japan, September and October are best
- 7) HLAZ-1566 Jeju, S. Korea (250 KW) Commonly used to check upper-band TP propagation, this religious broadcaster can boom in when upper band is strong. Carries Japanese-language religious programs frequently
- 8) VOA-1575 Ban Rasom, Thailand (1000 KW) Probably the most distant common TP, this station typically carries news programs in SE Asia languages. Very seasonal, with propagation best around equinox periods
- 9) JOIK-567 Sapporo, Japan (100 KW) Heard once at Grayland, WA on a stock SRF-T615 during a summer sunrise peak, the chances of logging this are slim to none (unless you are right on the ocean shore with your ULR)
- 10) Korean Jammer-1053 Reported by Nick Hall-Patch during a trip to Grayland in April, nobody else has managed to hear this on a stock ULR (including the author, who has tried for it desperately)

Increasing Your Odds of Success Chasing TP's with a stock pocket radio is very challenging, but you can certainly improve your odds by choosing the best receiving environment. The ultimate advantage is to head for an ocean beach, or if that is not possible, head for any salt water (like Puget Sound in Washington). From my own experience, DXing at an ocean beach like Grayland can more than double your odds of receiving TP's on stock Ultralights. Choose a location as isolated as possible, away from slopping locals and their spurious products. If you can't make it to salt water, head away from your local QRM to an isolated location, preferably one with an unobstructed path to the northwest. Don't despair if you live in the center of North America-- stations like JOUB-774 and JOIB-747 have more than enough power to blast their way deep inland, when propagation peaks occur.

Psychological Preparation Receiving TP's on stock pocket radios is a serious challenge, and it requires a serious commitment in determination and perseverance. Are you willing to work hard to make an extremely thrilling TP reception? Do you have the determination to persevere until you are successful? These type of receptions are very challenging, but the reward of success is a thrill absolutely unlike any other in the AM-DXing hobby! Success will probably change your outlook on the hobby deeply, and give you a new enthusiasm that is contagious in its effect on others. Consider yourself forewarned :>)

73 and Good Luck, Gary DeBock