
Frequencies & Modes

Satellite callsign: RS1S

- Frequency: 437.075MHz

Satellite callsign: RS2S

- Frequency: 437.082MHz

Satellite callsign: RS3S

- Frequency: 437.100MHz

Satellite callsign: RS4S

- Frequency: 437.087MHz

Satellite callsign: RS5S

- Frequency: 437.1125MHz

Satellite callsign: RS6S

- Frequency: 437.000MHz

Satellite callsign: RS9S

- Frequency: 437.025MHz

Satellite callsign: RS10S

- Frequency: 437.050MHz

Satellite callsign: RS11S

- Frequency: 437.062MHz

Satellite callsign: RS12S

- Frequency: 437.0125MHz

The satellite modes are:

- 1200/2400/4800 bps .AX25 AFSK
- SSTV (Robot36)
- Audio

Dealing With Doppler Shift

Start High, Go Low

The satellites are subject to 'normal' Doppler shift, so start listening 10kHz - 12.5kHz above the given frequency at acquisition of signal (AOS), dropping to 10kHz-12.5kHz at loss of signal (LOS).

Where's The ISS?

To find the position of these satellites, use the positioning date for the ISS. There are a number of resources on the web (AMSAT, N2YO, etc.) and apps that will give this information.

I use the SatTrack app on my iPhone and find it immensely useful. Definitely recommended!

Finally, I hope you find this guide useful! Find me - G7BEH - on QRZ.com and Facebook at <https://www.facebook.com/G7BEH>

- Dee Vickers.



A Guide To The SWSU Satellites

A quick reference guide to finding and listening to the ten new SWSU satellites. Covers SSTV and voice.



With ten new satellites being released by hand from the ISS, there's plenty to listen to. This guide aims to help you discover those satellites.



The SWSU series of satellites are easy to locate and listen to.

This quick guide aims to help you find them and listen to them and know what to expect. I hope you find it useful. **G7BEH**.

Already experienced in using satellites?

In that case, all you need to know is that you can currently use the ISS positioning data and the frequencies listed overleaf, and you're done!

Want to view the images being sent?

The new satellites are using SSTV to transmit images.

They use Robot36 coding so you'll need to set this.

How do I know which satellite I'm listening to?

There are regular voice transmissions that will provide the call sign. For example "RS6S" will be said in English.

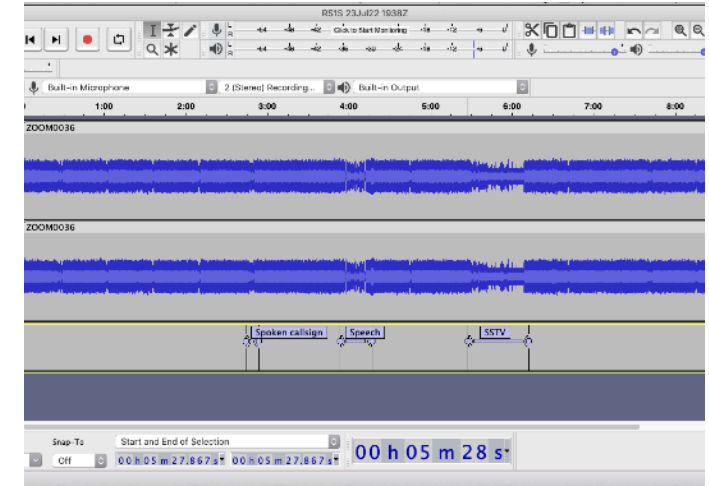


Equipment Needed

Fortunately you don't need expensive and extensive equipment to receive the transmissions from the new satellites. I just use a Retells RT95 radio that cost me £65 - you could equally use the popular Baofeng radios too. As long as you can receive the 70cm band, you'll be fine.

I take the audio from the radio and record it on to a basic Zoom H1 recorder. The recording is transferred to Audacity and I can then complete some very basic processing on it.

The common Arrow II antenna is used too.



SSTV

To decode SSTV transmissions, I playback the relevant audio section into the CQ SSTV app on my iPhone. This allows me to alter the phase and shift, which is often needed.

Select the Robot36 protocol to download and I've found it better to turn off the "Auto-Start" feature in this app and start it manually.

The satellites seem to be subject to deep fading and getting a good strong signal for the duration of the SSTV transmission has been one of the challenges!