

To quote Colonel “Hannibal” Smith of the old TV series A Team, “I love it when a plan comes together”.

I love it when a plan comes together. In an effort to transition into a new Club year, I’m trying to think of things we can do over the air to maintain our social distancing, learn something new, exercise our license privileges, and have fun. What about Slow Scan Television images (SSTV)?

With the help of Jared, W7FMJ, I was able to transmit a CQ SSTV image over the air to Jared’s phone. What follows is a brief description of what we did and how I practiced beforehand.

Practice first. After loading a program on my laptop and an app on my phone, I created a couple of images in the laptop software with my callsign displayed and simply played the image audio through my laptop speakers. Using the microphone in my cell phone (android) and the phone app, the microphone picked up the audio, decoded the mode, and faithfully displayed the received image on the phone screen.

So why is this cool?

Backup to the first of this year. The Russian side of the ISS (international space station) sent a series of SSTV images to earth for amateurs to capture. Included below is one such image successfully captured using the techniques to follow.

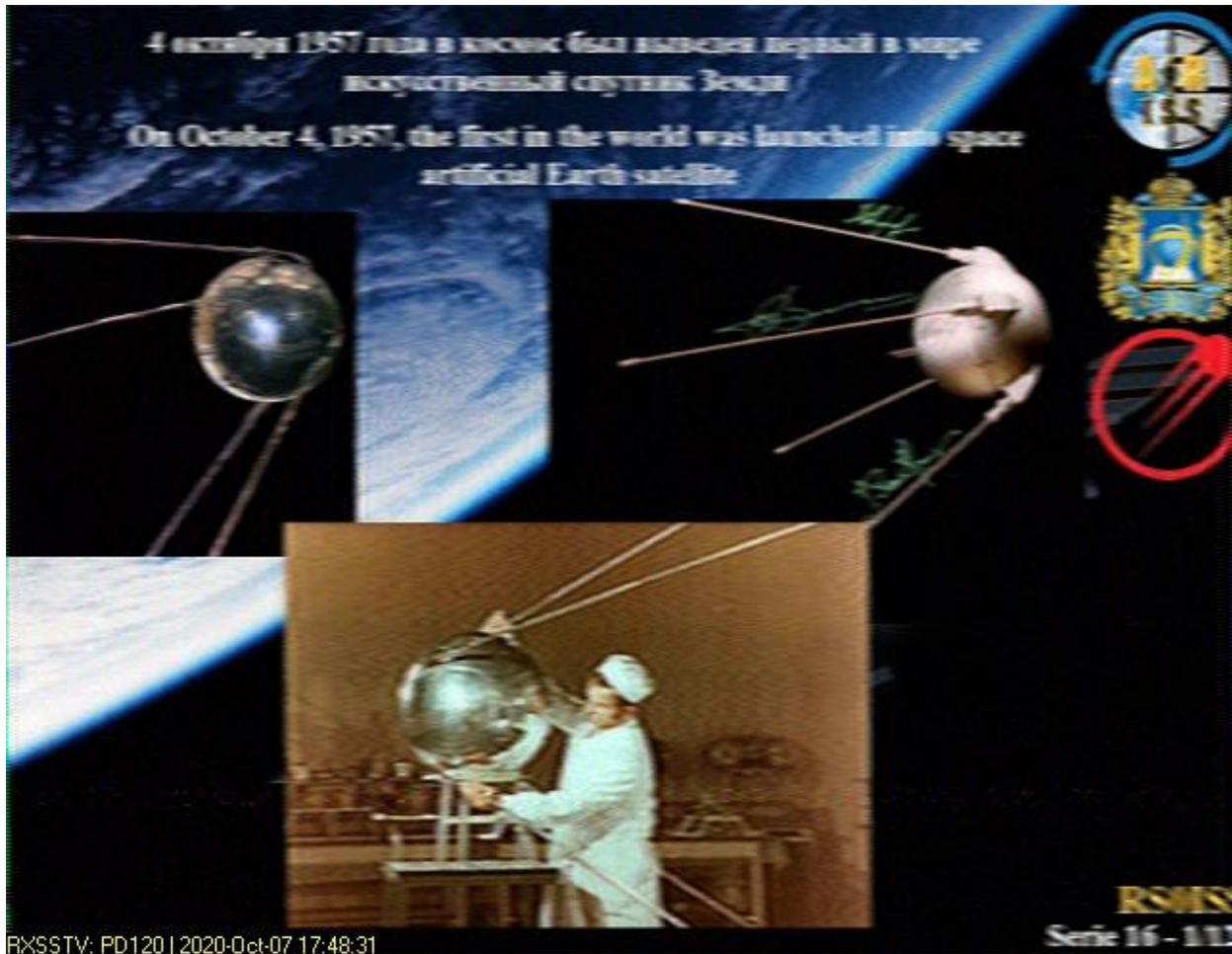


They did it again!

They did it again on August 4th and 5th, but I missed that series. I should pay more attention to the ISS AMSAT page. <https://www.amsat.org/amateur-radio-on-the-iss/>

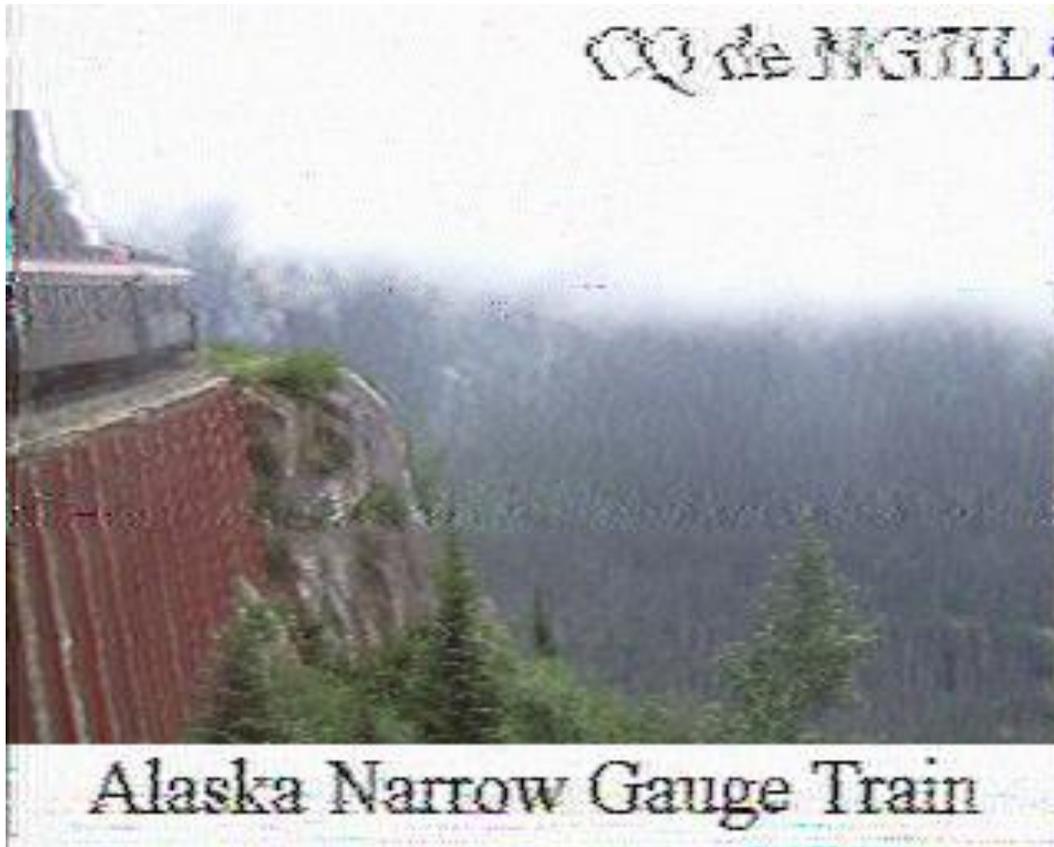
And AGAIN!!

This month, October 2020, the ISS transmitted images again. While they had a few technical glitches, I was able to capture a few images. This one from October 7th, 2020.



Back on Subject

Enlisting the help of Jared, he downloaded Robot 36 to his cell phone and gave a listen on his handheld, this is what he received!



Not too bad when you consider:

Our path was not great.

The sending station, NG7IL, placed the microphone of the radio next to the speakers of a laptop.

The receiving station, W7FMJ, placed the microphone of his cell phone next to his radio.

Imagine if I could send a better signal and the receiving station had better reception because of it. Not bad for FM simplex.

While this mode is generally used on the HF bands, it will work on the VHF and UHF bands with FM or SSB.

The Idea

To participate in SSTV on VHF/UHF one only requires three things:

1. The desire to participate.
2. A VHF/UHF radio.
3. Free software installed on a cell phone or computer.

Google is our friend. Search for SSTV and there are many options for free software and apps.

MMSSTV, <https://hamsoft.ca/pages/mmsstv.php>

Is the program I used to send the image to Jared. It took me some goofing around to learn how to create my own images and edit them.

Robot 36,

https://play.google.com/store/apps/details?id=xdsopl.robot36&hl=en_US

Is a free app for Android phones and tablets.

If you already use Ham Radio Deluxe, DM780 supports SSTV. There are Linux and Apple versions of similar software too.

Download the programs on your devices and practice receiving images from one device to another. Its fun and proves the concept works. It will also give you a little practice for the real thing.

The Real Thing, NO not the soft drink!

For October, I will transmit some SSTV images. Keep an eye on the website and an ear to the Ham and Eggs net for days and times. Receive time is only a couple of minutes and the software will automatically detect the appropriate mode and automatically save your received image.

To the best of my knowledge we will have an over the air meeting Saturday, October 17 as our club meeting. Be prepared as I will transmit some images via the repeater and others via simplex for you to practice your new skill. We will then discuss what went right and what may have gone wrong. Either way it should be a fun and interesting exercise. Plan to participate.

Questions?

I do not claim to be an expert. Playing with the software and apps will provide you with all the skills you need to be successful. I will try to answer basic questions but specific questions on how to download to your system is beyond my skill set.

Google is our friend, there are multiple videos that can help cover specific questions. Experimentation is the amateur way, give it a go.

Give me shout on the radio, NG7IL – Gil, or email me, NG7IL@arrl.net

Here is what you do next?

1. Decide to give it a try.
2. Download the software or app and play with it.
3. Keep an eye on the website and an ear to the Ham and Eggs net.
4. Have fun! It will be useful in following months for other club activities.
5. Add another useful skill to your amateur radio toolbox.

Hint: If you have an auxiliary audio out on your radio and you wire it to the microphone input on your device, the images will be much better. This is useful if you wish to capture ISS images. Just leave the radio and receiving device on and wait for the passes. All received images will be saved for later viewing, printing, and bragging rights.

73 de Gil

NG7IL