



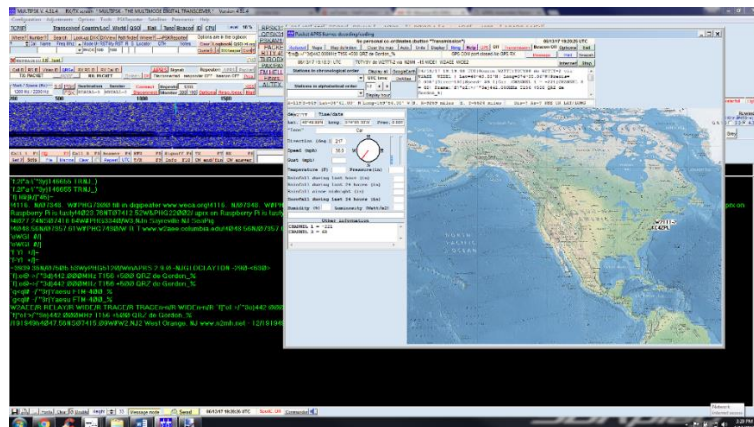
Decoding APRS using SDRuno and MultiPSK

6/19/2017

APRS is an amateur radio-based system for real time digital communications of information of immediate value in the local area. [1] Data can include object Global Positioning System (GPS) coordinates, weather station telemetry, text messages, announcements, queries, and other telemetry.

APRS data are typically transmitted on a single shared frequency (depending on country) to be repeated locally by area relay stations (digipeaters) for widespread local consumption. In addition, all such data are typically ingested into the APRS Internet System (APRS-IS) via an Internet-connected receiver (IGate) and distributed globally for ubiquitous and immediate access. Data shared via radio or Internet are collected by all users and can be combined with external map data to build a shared live view

APRS messages transmit in FM at a frequency of 144.390 MHz but also transmit on other frequencies in different regions of the world.



You will need either VB-Cable or VAC installed and configured. This will allow you to pipe the audio out of SDRuno into the MultiPSK decoder.

<http://vb-audio.pagesperso-orange.fr/Cable/>

<http://software.muzychenko.net/eng/vac.htm>



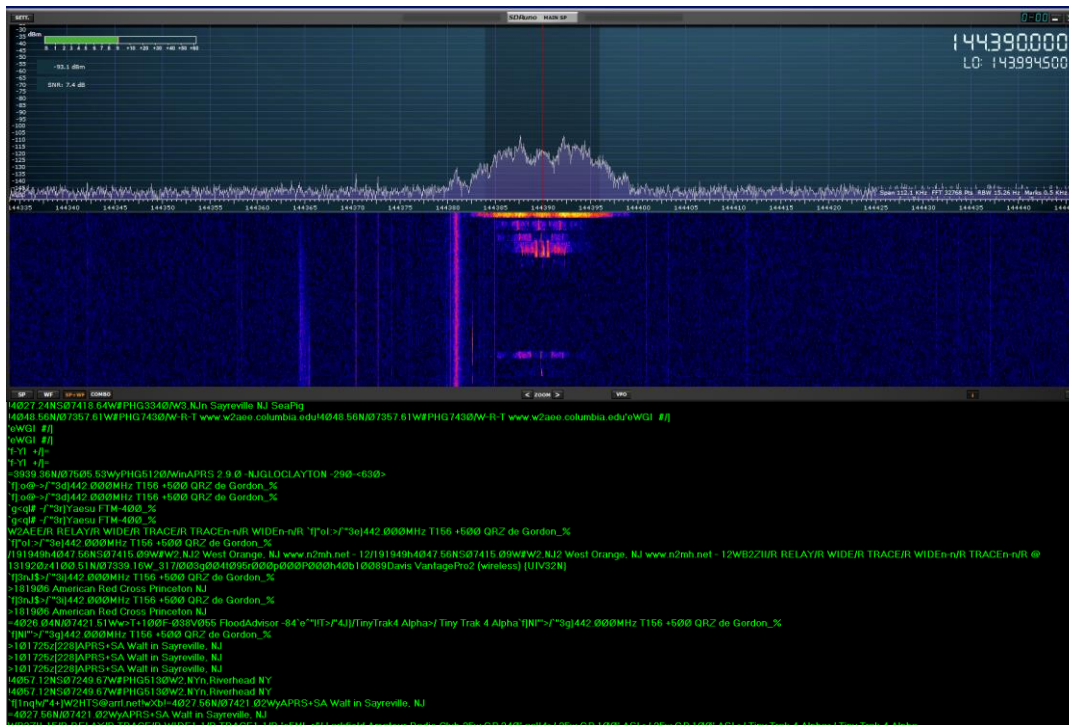
In North American APRS packets will be on the primary of frequency 144.390 MHz. But various other APRS frequencies are also used.



* Launch SDRUno and select the frequency. The Mode in SDRUno is FM/NFM with the filter set at 12k.

BPSK31	63	125	250	FEC31	PSK10	MT63	SITOR A	Amtor ARQ	1382	ACARS (VHF)
QPSK31	63	125	250	CHIP	PSK63F	DIGISSTV	RTTY 100	110/150/200	DGPS	SYNOP /SHIP
PSKAM10	31	50		PSK220F	CW/CCW	QRSS	SELCAL	110A	4285	COQUELET
PACKET+APRS				Amtor FEC-Navtex	ASCII		ARQ-E(3)	IEC 870-5	HFDL	NWR (SAME)
RTTY 45	50	75		LENTUS	Pactor1	DoF/THOR	POCSAG	AIS	BIIS	GMDSS /ATIS
THROB	THROB	MFSK+PIC	MFSK8	DominoEX			FM/RDS	EPIRB	VDL2	ARGOS
PAX/PAX2	DTME	VOICE	JT65	OLVIA	Contestia				ADS-B	ORBCOMM
FM HELL	PSK H	FELD HELL	HELL 80	RTTYM						
Filters	Analysis	Binaural	ALE400	141A (ALE)						
AUTEX			FAX	SSTV						
Amateur modes						Professional modes				

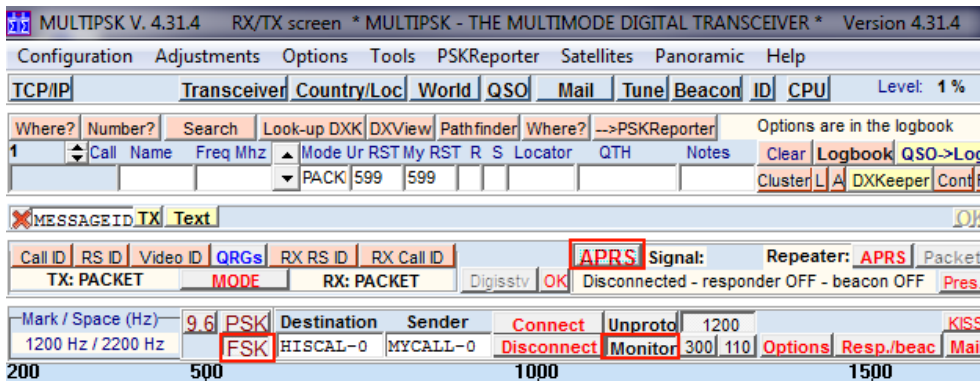
* Launch MultiPSK and select PACKET+APRS.



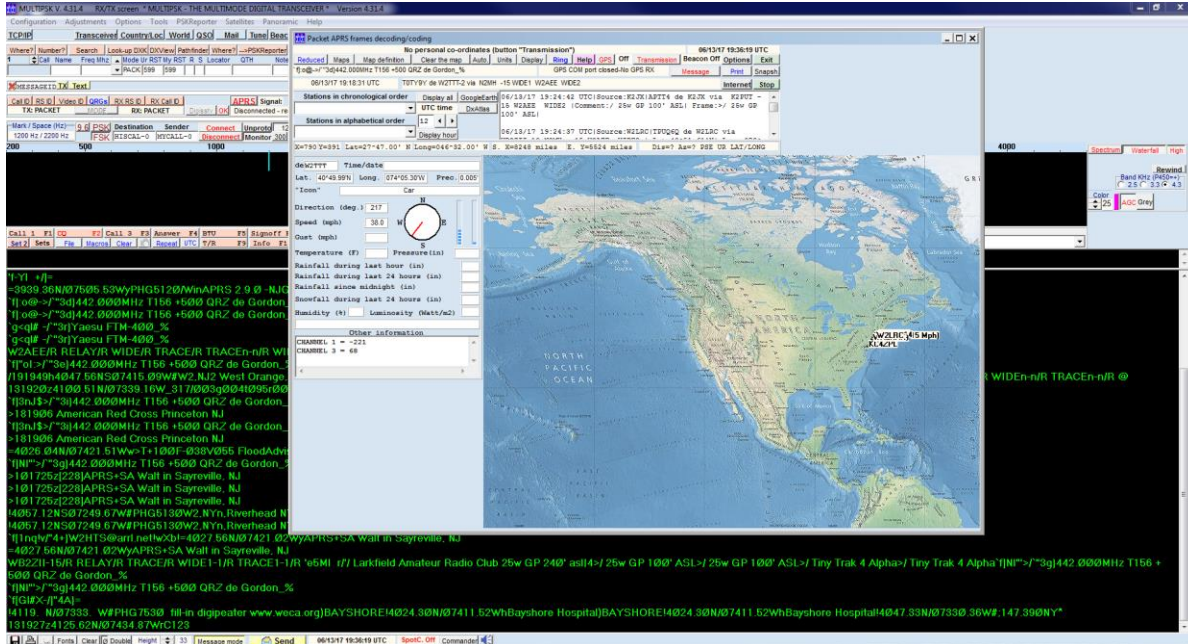
* Wait for the distinct APRS burst and watch the lower decoder section of MultiPSK.



* Center the peak of the APRS burst as shown in the AUX SP Module.

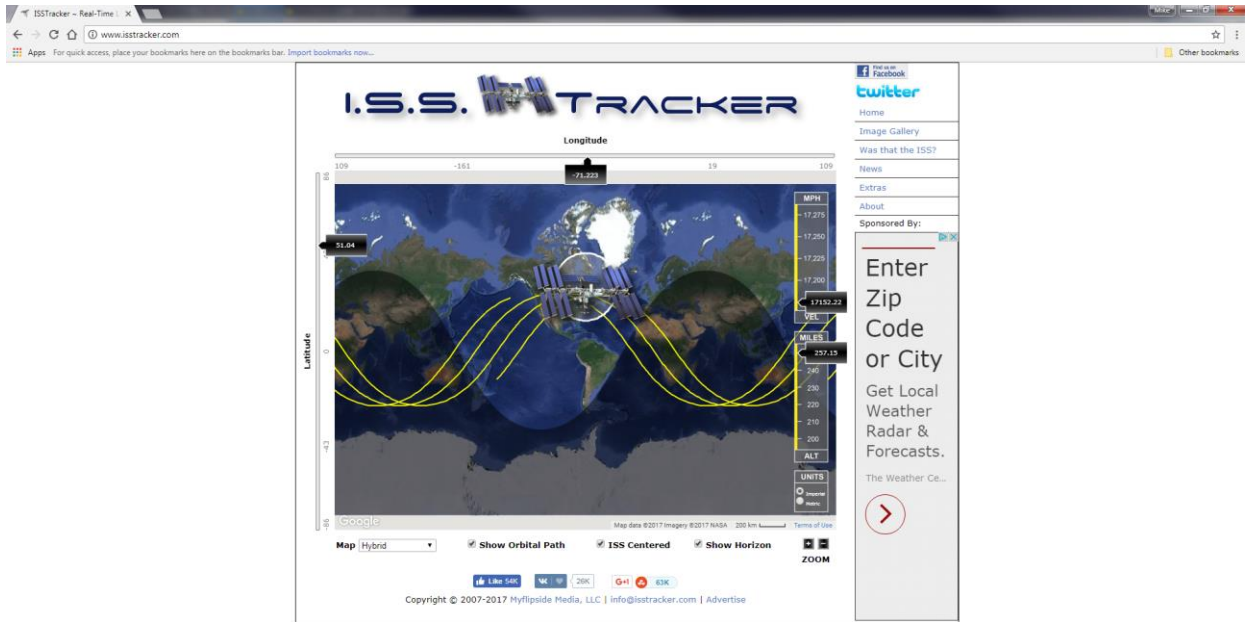


* Select FSK as shown. Select Monitor as shown. Click APRS to display the station map as shown.



* Display the APRS station info on a map inside of MultiPSK.

International Space Station APRS transmissions.



* Go to <http://www.isstracker.com> and see if the ISS is passing over your area.



* Set the frequency in SDRUno as shown. 145.825 MHz FM. The Mode and filter remain the same FM/NFM/12k

* Leave MultiPSK at the default APRS settings.