

# Slow Scan TV

- \* What is it?
- \* How to get started.
- \* What it can be.

by Ed Poccia, KC2LM



# What is Slow Scan TV?

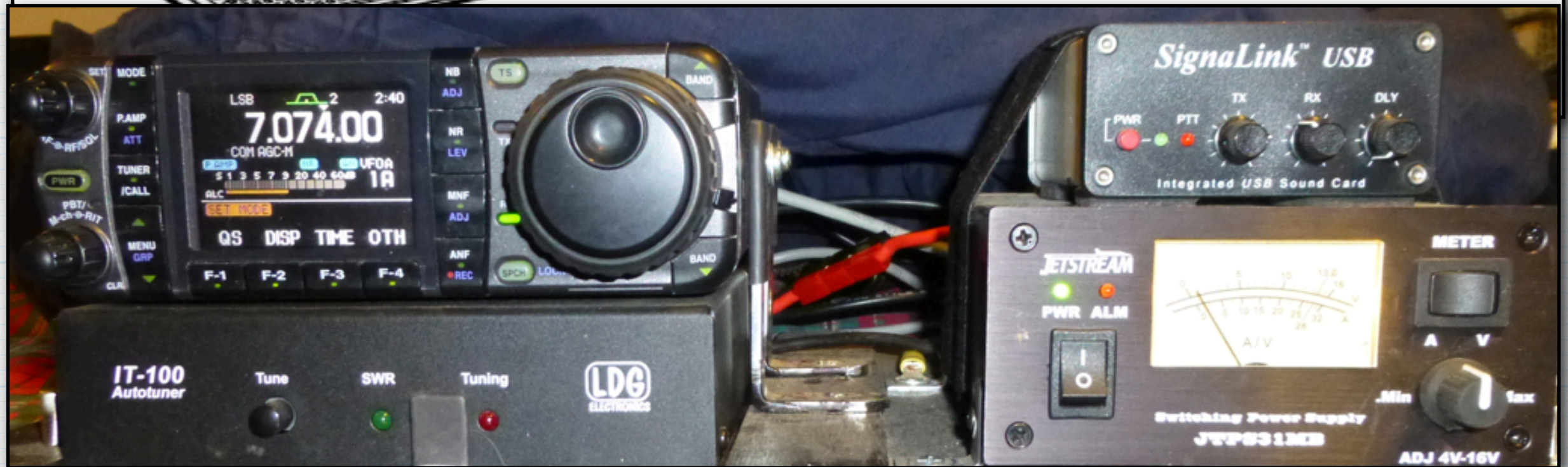
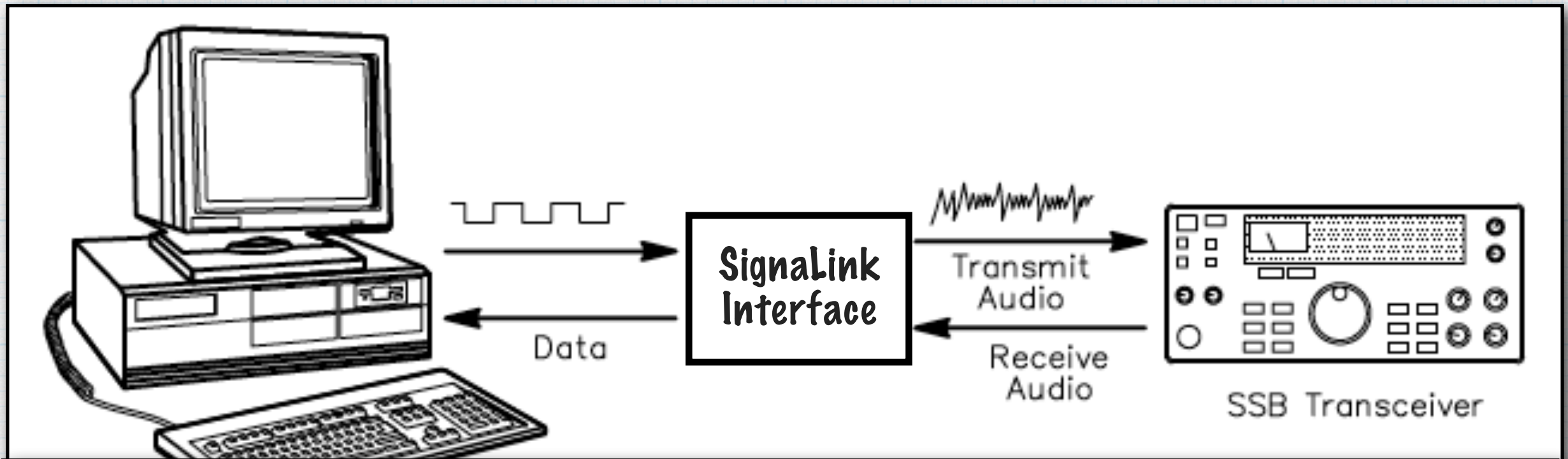
- \* image transmission mode using audio tones
- \* used by hams to send each other grainy pictures
- \* different resolutions 120 x 120 pixels to 320 x 256
- \* different transmit times; 10 seconds to more than a minute, depending on mode
- \* takes up 3kHz of bandwidth, that is why it operates on the SSB phone band







# SSTV HF Set-Up Today





# SSTV Frequencies

- \* 80 meters: 3.845, 3.857 MHz
  - \* 40 meters: 7.171 MHz
  - \* 20 meters: 14.230, 14.233 MHz (most popular)
  - \* 15 meters: 21.340 MHz
  - \* 10 meters: 28.680 MHz
  - \* 2 meters: 145.5 MHz
- \* repeaters can be used with permission & proper ID



# SSTV MMSSTV Software

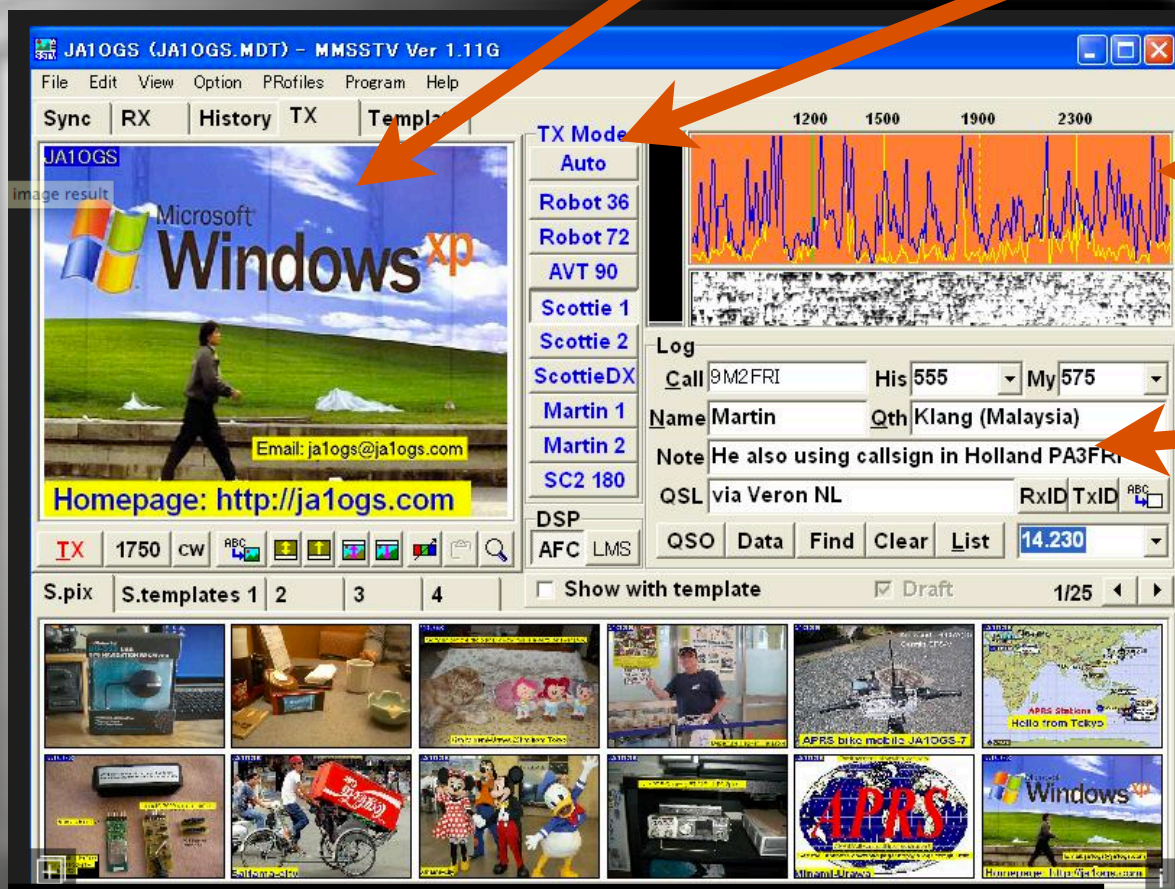
Viewing Panel

Mode Selection - Rt Click for more options  
(B/W 8 used for contests)

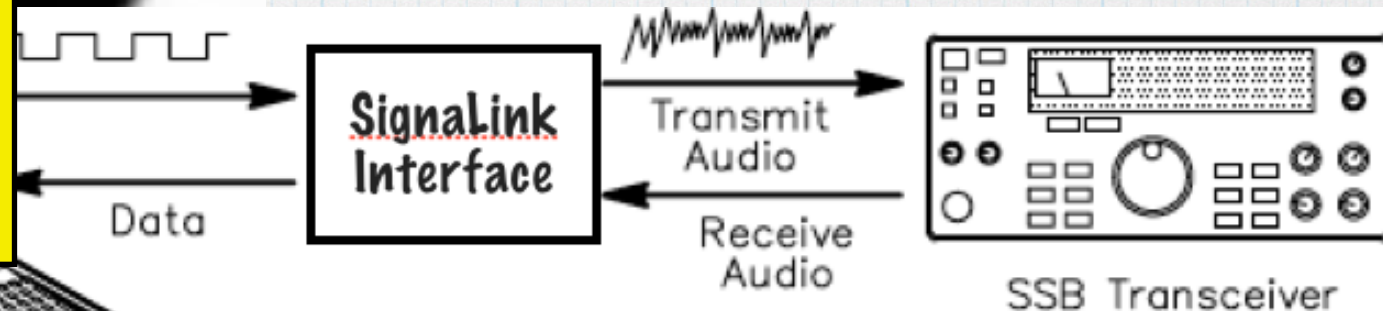
Tuning Scope

Record QSO Info - the  
info can be included in  
transmissions

Image Gallery



Download MMSSTV free from the  
tigertronics.com web site.  
Click on Signalink Software





# MMSSTV - Receiving Images

## To Receive an Image

Click on **Auto** to have the computer select the SSTV mode.

The screenshot shows the MMSSTV software interface. The title bar reads "KC2LM (KC2LM.MDT) - MMSSTV Ver 1.15A". The menu bar includes File, Edit, View, Option, PProfiles, Program, RadioCommand, and Help. The main window is divided into several sections:

- Buttons:** "RX" and "History" buttons are circled in red. Navigation arrows (left and right) are circled in blue.
- RX Mode List:** A list of modes including "Auto", "Robot 36", "Robot 72", "AVT 90", "Scottie 1", "Scottie 2", "ScottieDX", "Martin 1", "Martin 2", and "SC2 180". A red arrow points to the "Auto" mode.
- Scope:** A frequency scope showing a signal centered around 1200-1500. A red arrow points to the signal.
- Log:** Fields for "Call", "Name", "Note", and "QSL".
- DSP:** "AFC" and "LMS" options.
- Image Panel:** A grid of received images, including a hot air balloon, a road, and a hot air balloon.

1. Listen patiently for the distinctive sound of SSTV on one of the SSTV freq.
2. Use the scope to help you center the signal & tune it in.
3. Click on **RX**, when you hear the SSTV sounds.
4. The image will appear scrolling down in the image panel.
5. Click on the **History** button & use the arrows **circled in BLUE** to navigate the images received.



# MMTV Screen - Add Pictures

KC2LM (KC2LM.MDT) - MMSSTV Ver 1.13A

File Edit View Option PProfiles Program RadioCommand Help

Sync | RX | History | TX | Template

TX Mode

Auto

Robot 36

Robot 72

AVT 90

Scottie 1

Scottie 2

Log

1200

Pictures library

Includes: 2 locations

Arrange by: Folder

Sample Pictures

Balloon Launch

Ed n Greg

Jeeps in Moab

PPG By Shore

Rocks Moab

Three PPGs

1. Select **S.Pix** to access the image gallery

2. Drag and Drop **jpeg** images from the picture folder to an empty panel in the gallery.

S.pix

S.templates 1 | 2 | 3 | 4

Show with template

Draft

1/25



# MMSSTV Software - Transmit Your Pictures



1. Toggle between the **S.Pix** and the **S.templates** buttons to select picture & text.

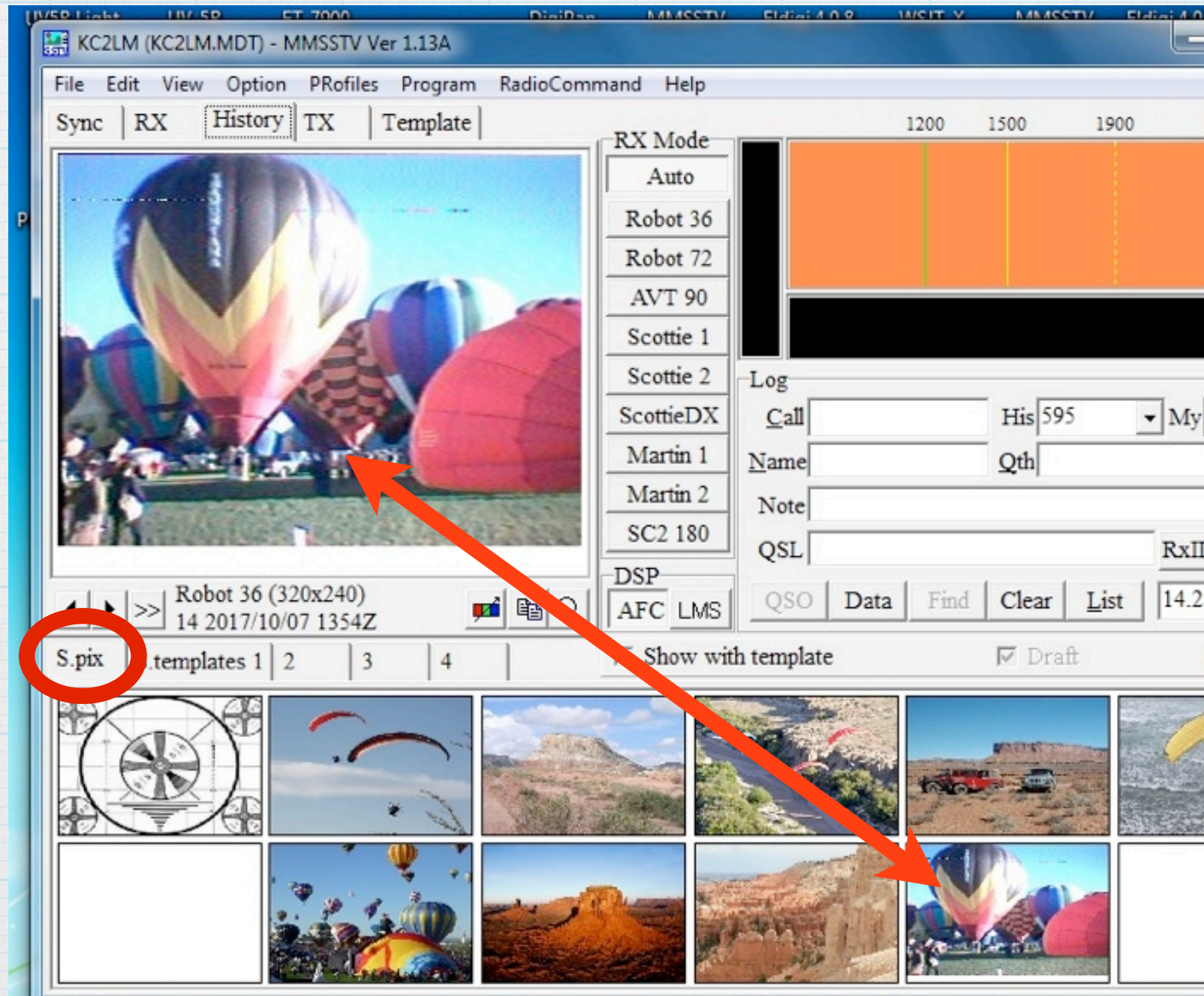
2. Click on the **TX** button to transmit.





# MMSSTV - Transmit Images You've Received

Members have captured and sent back to base amazing pictures from the VC-H1 portable SSTV units at Balloon fiesta.



To transmit them over HF:

1. Right Click on the picture & select **Copy**
2. Move the cursor to an empty frame in the image gallery (**S.pix** key)
3. Rt Click **Paste**.
4. Select a Template and Transmit as usual.



# SSTV Operating Tips

- \* SSTV is 100% Duty Cycle
- \* Cut power using SignalLink's Tx Audio Control to 50 watts
- \* Do Not Use Audio Compression
- \* Listen, and be patient
- \* SSTV contests are listed in QST



# SSTV from the ISS

- \* Well Publicized Announcements preceded the Tx of SSTV images from the ISS
  - \* ARRL's QST & Newsletter
  - \* HDARC emails & Announcements on Local Nets
- \* Receivable with an Handi-talkie (HT) 145.8 MHz
  - \* Using a base station's vertical antenna will help
- \* Several pictures are sent at a time
- \* Record Audio and play back into mic of computer running MMSSTV software









This is an exchange I had with the Johnson Space Flight Center's amateur radio club, W5RRR in Houston, Texas. The transmission of these images was part of NASA's 60th Anniversary.

(July 2018 on 14.230 MHz)





# SSTV Can Be More than Pictures

- \* Visual medium is more interesting for **students**
- \* Additional activity at **EXPLORA**
- \* Educational Activity for **Field Day** (100 pts)
- \* Images can make a meaningful contribution to **Search & Rescue** missions
- \* Demonstrates Ham Radio's visual capability during **Hamfest & Balloon Fiesta**
- \* Images communicate more clearly to administrators, activity levels during **"Fun Runs" & "Bike Rides."**



# SSTV at Balloon Fiesta





# Questions / Comments

- \* The slide show will be available on the High Desert Amateur Radio Club website:  
[www.nm5hd.com](http://www.nm5hd.com)