## Setting up an MMSSTV Beacon & Repeater

I have an SSTV beacon running on 10 meters. This is a wonderful band when it is open, and as is the function of beacons, I send out an SSTV image approximately every 12 minutes so that any ham can tune to 28.677 MHz and see if they can copy me. I am located 200 miles north of Chicago, in the US.

This operation does two things.

- It automatically sends out a **beacon** image.
- If a ham can copy me, he can send a signal to me. My rig will acknowledge access by sending my WB9KMW call in CW. Then the ham can transmit an image in any desired mode, and if I copy, I will replay in that same mode. This is a 'store and replay' option for SSTV.

MMSSTV software can be set up in a beacon/repeater mode. To do so, you first go to the MMSSTV icon and right mouse click to bring up the following dialog box. Then click on Properties. In the Target field, simply add -r duly noting to provide one space after the ....\MMSSTV.EXE"

	Open	MM5STV Properties	? ×			
	Troubleshoot compatibility	General Shortcut Security				
	Open file location		1			
	Run as administrator	MMSSTV				
His 🚠	Scan with Microsoft Security Essentials					
	Pin to Taskbar	Target type: Application				
-	Pin to Start Menu	Target location: MMSSTV				
	Restore previous versions	Target: ["C:\Program Files\MMSSTV\MMSSTV.EX	E''-r			
vilsy (Pil)	Send to	Run in separate memory space Run as different user				
	Cut	Start in: I''C:\Program Files\MMSSTV''				
	Сору					
5	Create shortcut	Shortcut key: Utri + Ait + I				
TUP W	Delete	Run: Normal window				
	Rename	Comment:				
2	Properties	Find Target Change to	on			
MIMESUV	gpoteolifecto	OK Cancel	Apply			

Next, double click on the MMSSTV icon to launch your MMSSTV program. Now the 'Setup repeater' function in Options will no longer be grayed out. Also, you may notice the software is now called 'MMSSTV Repeater' whereas previously it was called simply 'MMSSTV.'

🔜 WB9	okmw (	WB9KM	W.MDT)	- MMSST	V Repeater V	er 1.13A
File Edi	it View	Option	PRofiles	Program	RadioCommand	Help
Sync	RX	Soundcard output level(V) Soundcard Input level				TX
WB9K		Setup repeater Setup Logging Setup MMSSTV(O)		ater Hz		

Now click on the 'Setup repeater' option and begin to configure to your specifications. I will illustrate how I have configured mine.

lepeater					
🔽 Enabled	SQ level 20	000	Debug State 0 Ans 49		
Answer <mark>%m</mark>		Macro	RX 45/49 TX 47 Level 17160 Beacon 536, 286s		
Constants Tone 1750 - Hz			Template No. (1-300) Replay 7		
Tone det	1500	ms	Beacon 8,13,14,13,9,13,15,13,10,13		
Answer wait	500	ms	🔽 Bottom line adjustment		
RX Timeout	10000	ms	Beacon		
Replay wait	1000	ms	Interval 10 🔸 min		
Tone sensitivity ← Highest ← Higher	⊂ Mediur ⊂ Lower	n	Silence time 3 <u> </u>		
Folder C:\HAM	(MMSSTV)F	ISTORY	Beacon ? OK Cancel		

- Check 'Enabled' to allow your repeater/beacon to function.
- You will need to experiment with the 'SQ level' and determine what squelch setting is appropriate for your receiver. You want it set high enough to filter out normal band noise, yet low enough so that if a station attempts to contact you for repeater use, you can hear it. If you don't set this high enough, then MMSSTV will think there is activity on the band and it will not send out a beacon...and instead recycling to the 'Silence time' you have set up.
- I chose to set my 'Tone sensitivity' to the highest setting.
- I chose to set a beacon 'Interval' at 10 minutes. In practice, I find myself automatically beaconing every dozen minutes.
- The 'Silence time' which I set at 3 minutes is the time out the software will take if it detects activity on the band. This is to minimize undesired QRM interference your beacon could otherwise create.
- I chose Martin 2 as my 'SSTV Mode' and this means that every beacon transmission I send will be in Martin 2. This does not affect the store & replay repeater operation. When I replay a received transmission, it will be replayed in the same mode as provided by the transmitting station.
- If you wish to store replayed SSTV transmissions in a special folder, you can specify that in the 'Folder' box. I select a folder where I can then upload for web display with the KE5RS FTP Widget.

That now brings us to the Template box. You can specify which template(s) you use for an SSTV replay. I chose only one, #7. Notice now that you have set up MMSSTV in repeater mode, the templates in the 'S. templates 1' area are numbered sequentially.



I have chosen a whole series of templates for beaconing, starting with 8 and using a base template #13 for every other beacon transmissions. I embed pictures into each template. I have a tutorial on my web site if you need help with that. Number 13 will instruct the observer how to access my repeater function. Namely,

- A ham goes to the TX pane in MMSSTV and clicks on the 1750 tone button for at least 1 ½ seconds. (That tone button is immediately to the right of the normal TX button you click when sending your SSTV transmissions.)
- Then you wait to see if my station will reply. I will ID in CW with my call sign, WB9KMW.
- Then pause for a couple seconds for my station to return to RX mode, and you can then transmit a picture within 10 seconds.
- If I copy appropriately, I will then automatically retransmit that picture using the #7 template as an overlay.



Hams have told me that many have local noise problems just above the 28.680 MHz international SSTV calling frequency. So I decided to set my beacon on 28.677 MHz, or just 3 kHz underneath to avoid any congestion with regular SSTV traffic.

Now I look for a few more hams to have beacons on 28.677 MHz. This will then be convenient for everyone who can tune to this one frequency and listen for any beacon anywhere to signal. If so, one knows that band is open to them at least in that direction.

It will be helpful to coordinate access tones. So far we have Brad KO6KL @ 1500 Hz, Doug VE1DBM @ 1633 Hz and me, WB9KMW, @ 1750 Hz.

If you need even more details, you can go to http://hamsoft.ca/ for information.

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