The Path to Success & Happiness:

Know the Protocol

Just as CW has a protocol, Meteor Scatter and JT43 have procedures. Many operators jump right in after getting the WSJT application transmitting only to find out they don't know what to do when. They confuse other operators by what they are transmitting. It is easy to avoid this confusion by learning the simple protocol of both modes.

Here are a few basics for Meteor Scatter.

For a contact to qualify as being successfully completed:

1. Both Stations must copy both stations call signs

   (This is simple… W5SNX WA5UFH)

2. Both Stations must copy their report

   (The standard is the R26 or R27)

3. Both Stations must acknowledge they have the above information.

   (This is either with the RRR or 73)

At any point in the QSO you know what you have received and what you have sent. One simply needs to ask oneself, what is it the other operator needs at this time?

If you have received nothing or only partial calls send both calls.

If you have received his call and your call but no signal reports from him, he needs your call and his signal report.

If you have received his call and your call with your signal report, he needs your signal report.

If you are sending your signal report and receive the "RRR" he has acknowledged his report and he needs 73.

If you are sending "RRR" and receive "73" , he needs "73".

If you are sending "73" and receive "73", the QSO is complete even though he might not have received the last "73". He has acknowledged your call and report with the "RRR".

The "73" is not an actual requirement for a legal QSO, provided both have acknowledged with either the "RRR" or "73".

Note: Review the Meteor Scatter Flow Chart ……

Have the Correct Time

JT43 and Meteor Scatter contacts require your computer to have the precise time. This is easily

accomplished; however still today some amateurs get on with bad pc clock settings.

Use the WWV as the standard and use the Dimension 4 program.

http://www.thinkman.com/dimension4/

Be patient

Learning new software and new modes of communication take time. Don't expect instant success. Learn from those who have more experience.

Use your RIT with FSK441. Never change your transmit frequency after starting. With JT43 the software locks the DF and no RIT is necessary unless the other station is over 250 Hz off the center frequency.

- With FSK441 after receiving good print observe the DF and adjust the RIT that amount.

Use the accepted conventions.

- 30 second transmit periods
- Western most station transmits first
- If stations are North / South (none western most) the southern station transmits first.
- Use the R26 and R27 Report

Use the accepted frequency window

Use the appropriate mode at the expected place

Do not use FSK441 or JT43 in portions of the band where SSB is the norm

Do not make schedules on the designated call frequency

50.270 FSK441

50.290 PSK

.260 - .300 schedules all digital modes

Call CQ's on 50.270

Make Schedules

Seek schedules on the Ping Jockey or JT43 Pages for daily contacts

For contests make schedules in advance. (Some contests do not allow the use of the Internet.

Be prepared with a list of schedules for Meteor Showers

Ask for all the information necessary to make a schedule.

If on Ping Jockey

What frequency

Who will go first

Will Single Tones be used

If a schedule is set up via email, snail mail, ssb…

What frequency

What time will we start and stop (if no pings, how long will we try?)

Who will go first

Will single tones be used.

Use Single Tones

There are some that prefer not to use single tones. If you're "tone deaf" it might be wise to use only multi-tones". The advantage a single tone has over multi-tones is 7dB! Single tones will speed up your QSO completion times. Here are a few rules that will help you know "without a doubt" that the single tone you hear is correct.

- Never accept a single tone out of sequence
- Never accept a single tone not heard with your ears
- Never accept a single tone with unexpected DF
- Accept single tones that are:

Heard and in the proper QSO sequence

And at least one of these things are also observed.

1. Decoded in the proper column in text window
2. Expected (Reasonable) DF
3. Is shown as a spike in the Passband Window under the correct Tone Tic.
4. The Tone Ping is displayed in the proper location on the waterfall.
5. Any of the above is repeated again

Since the single tone has such an advantage over multi-tones you will hear more pings. I generally wait until I receive two good Single Tone messages before accepting it. Do not be too eager.

Use the WSJT Setting to your advantage.

After receiving a good ping that decoded, you can narrow the width that WSJT is searching for tones by doing the following.

1. Adjust the RIT so that WSJT in indicating less that 75 Hz

2. Adjust the Tot setting to about 150 Hz

3. When expecting Single Tones adjust the ST to -5

Total DF = (Receiver RIT in Hz) + (Indicated DF in WSJT)

If your RIT is set to -110 Hz and the pings received indicate 20 Hz the total DF is then - 90 Hz.