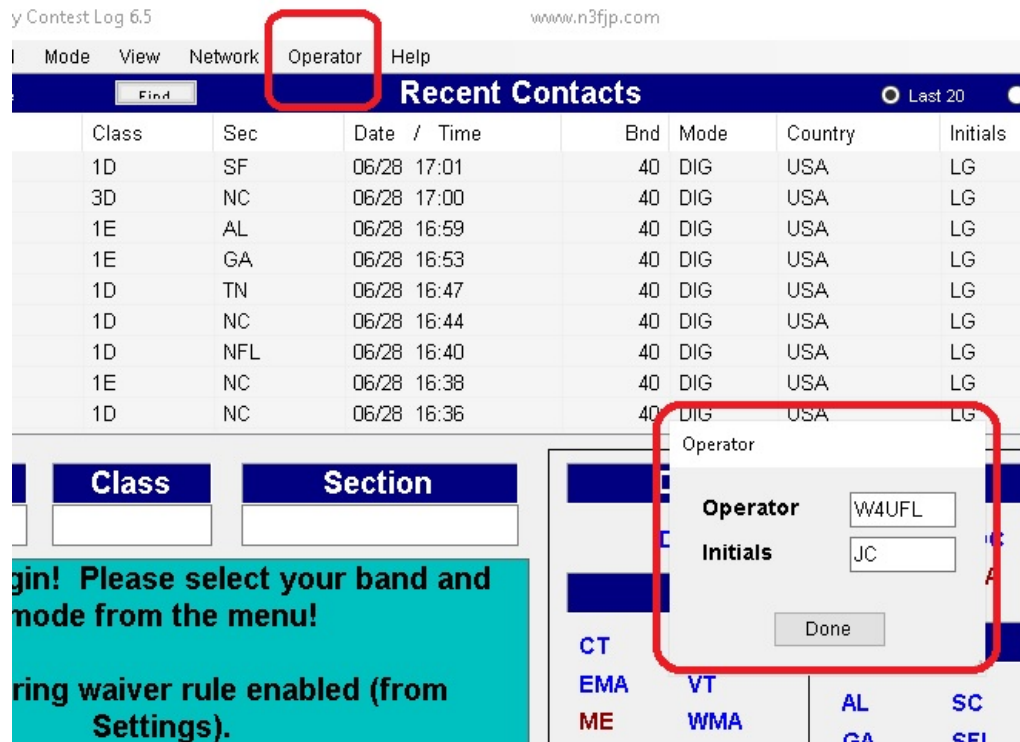


FIELD DAY CONTACT SUGGESTIONS: PSK31 / RTTY Alachua County ARES(R) / NFARC

Enter yourself as the operator into the Logging System -- click "Operator" and enter call and initials:



Set your BAND and MODE -- Click on BAND to pick the band, and click on MODE to select DIGITAL. All Digital modes are equivalent for points and duplicates. Only SSB and CW are different modes. .

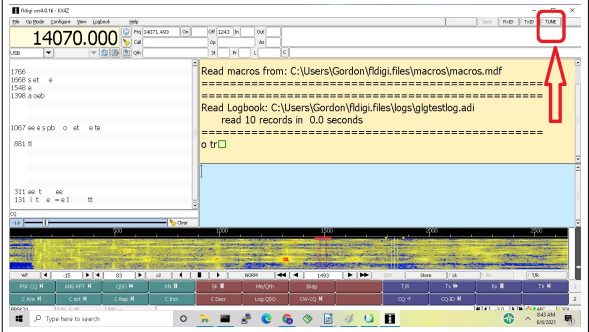
Logging to N3FJP Field Day Contest Log is similar to FT8/FT4 but using FLDGI which doesn't automatically fill in the log as much.

It has an automatic logging, but you will need to select portions of text received (highlight with mouse) then right click to post to portions of the exchange. It may be easier to simply type into N3FJP if you have a second screen or second computer. Your choice!!

Suggested Frequencies

MODE	TYPICAL FREQ	Comments
PSK31	1.838. 3.580. 7.070 or 7.080 14.070-14.072 21.080 28.120 50.290	see https://www.qsl.net/darn/PSK31.htm see https://bpsk31.com/operation/
RTTY	3.580-3.600 7.080-7.100 14.080.5 - 14.100 21.080.5 - 21.100 28.080.5 - 28.100	See: https://www.aa5au.com/rtty/rtty-sub-bands/

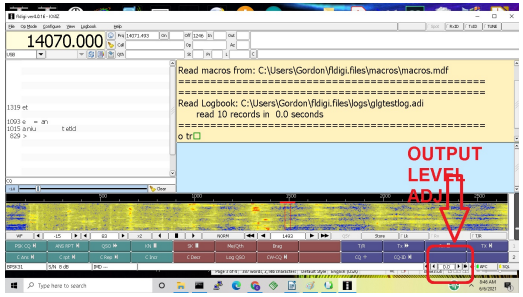
Setting up the Transmitter

ICOM SETTINGS FOR FT8/FT4 WSJT-X		
ITEM	CHOICE	COMMENT
MODE	Select USB-D . Touch the current mode (USB LSB, whatever it is) on the screen and you'll get the options	Although we used to be able to use HAMLIB rig control, lately we've had to use the separate application FLRIG and set FLDGI for FLRIG control of the ICOM 7300 Settings in FLRIG: Rig: IC-7300 Serial Port: as appropriate (Device Manager) Baud: 9600 or 19200 (it is autobauding) PTT via CAT
To get a solid tone:	Use TUNE button on FLDGI	 Upper Right of FLDGI

You can use right up to 150 Watts output PSK/RTTY with our amplifiers. .

RIG CONTROL: We now usually use FLRIG to control the ICOM 7300. It works better if you start this application FIRST. Set the RIG to ICOM7300, appropriate COM PORT (use Device Manager if you need to examine where the ICOM driver has located), speed 9600 or 19200. (ICOM autobauds)

FLDGI: Configure to use FLRIG as the control.
Choose your preferred technique (e.g. BPSK-31 (Psk31) or RTTY-45

TYPICAL POWER SETTINGS		
Total Output Power	150 Watts into a TUNED antenna tuner presenting roughly 50 ohms impedance to the station.	<p>This is the power class we are using for our operation.</p> <p>Our power measurements are inexact and only accurate when the TUNER is tuned to present 50 ohms to the station.</p>
Typical FT8 7300 % power needed to excite the amplifier to 150 watts output	<p>Control the 7300 power output with its multi-function knob power level.</p> <p>With no bandpass filter: 80Meter CW: approx 24% (24 watts from transmitter)</p> <p>20Meter CW: approx 15-20%</p> <p>With Bandpass Filter: might require higher power from ICOM-7300</p>	<p>ASSUMING ICOM 7300 USB MOD Level = 50%</p> <p>Oddly enough, when using FLRIG control, the output power control of FLDGI (shown in image below) appears to have NO EFFECT. (This is good, because it removes yet another intermediary gain control)</p> 
Typical SB-200 amplifier plate current reading when the amplifier is tuned correctly and producing 150 watts output	Approx 200-220 mA	<p>About 80 mA = idling plate current. So perhaps only 150mA of this is RF? .Not great "efficiency" at this low power setting, but it makes it LINEAR.</p>

TYPICAL TUNE UP SEQUENCE

(Try to do this with your transmitted signal in a clear spot so you don't QRM other users)

☐ **Tune the Antenna Tuner** using the Icom 7300 alone (*amplifier in barefoot mode*) Now the station sees 50 ohms.

NOTE

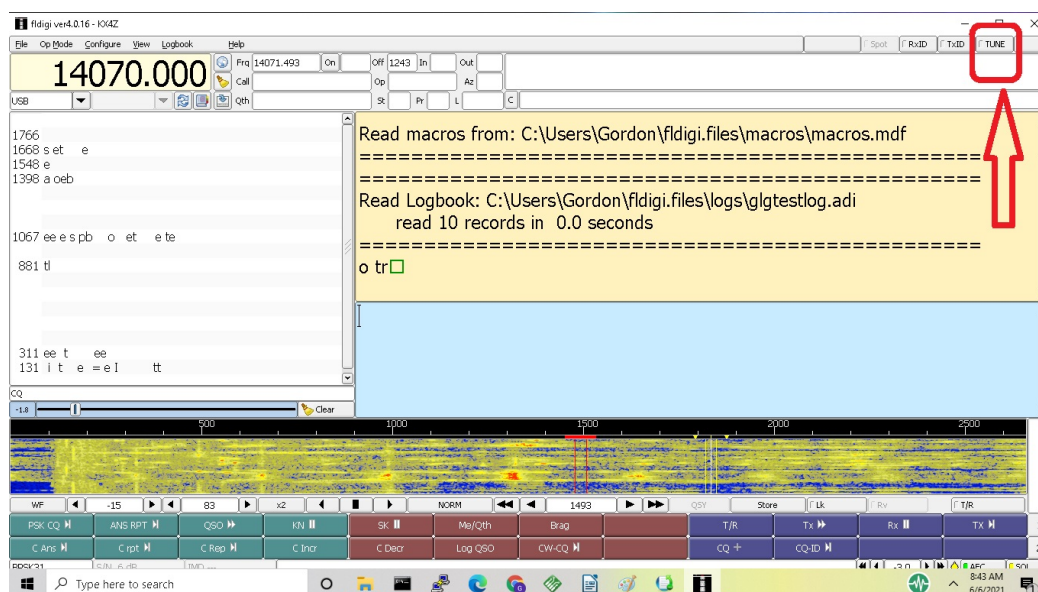
For the digital techniques, there is a pretty substantial benefit for getting the amplifier going -- it allows you to move from 50W output solid digital transmission from the ICOM7300, to 150W output solid digital -- 4.7 dB stronger signal. The ICOM 7300 just can't do 100W solid digital -- that's too much heating for it. The amplifier is able to LOAF at 150W digital output.

☐ **Pre-Set the Amplifier LOAD Capacitor** as per the pen markings on the front panel, and basically don't bother further with it.

☐ **Pre-Set the Amplifier TUNE Capacitor** per the markings and the band you're using. We will more finely adjust this as it is important.

☐ **Enable** the Amplifier, (switch on the front of the Amplifier)

☐ With your desired technique chosen (BPSK-31 or RTTY-45) and on a clear frequency, Generate a steady signal from the transceiver by using the TUNE button on your FLDGI application:



☐ **Promptly adjust the amplifier TUNE capacitor for peak OUTPUT RF** on ANYTHING that shows your relative output power -- such as

- Micronta Radio Shack SWR Meter
- SB-200 "Rel Pwr" meter setting
- even (last ditch) the LED bargraph on the LDG Antenna Tuner

and note the power (WATTS) on the power output monitor.

Adjusting that amplifier TUNE capacitor for peak OUTPUT RF is the single most important step. Once that is done reasonably well, this amplifier is so tough you just can't hurt it or distort at these piddling 150W output levels.

☐ **Adjust the 7300 output power level to get the OUTPUT RF = 150 Watts.** (You can adjust the 7300 output power in real time while sending a tone.) *In PSK31/RTTY from then on your power will remain pretty constant.*

☐ Proceed to make PSK31/RTTY contacts normally.

CONTEST SAVVY

Here is a typical Field Day digital exchange:

•NF4AC	"CQ FD DE NF4AC NF4AC K"
•W1AW:	"W1AW"
•NF4AC	"W1AW DE NF4AC 2F 2F NFL NFL K"
•W1AW:	"QSL 5A 5A CT CT"
•N6NA:	"QSL TU NF4AC FD K"

Therefore likely Memory Settings in FLDGI

Memory	Send	Comment
CQ	CQ FD DE NF4AC NF4AC K	CQ call
ANSW	de NF4AC	use to try to answer a CQ
EXCH	2F 2F NFL NFL K	sending exchange
RESP	QSL 2F 2F NFL NFL K	answering an exchange
QSL	QSL TU NF4AC FD K	moving to next contact

