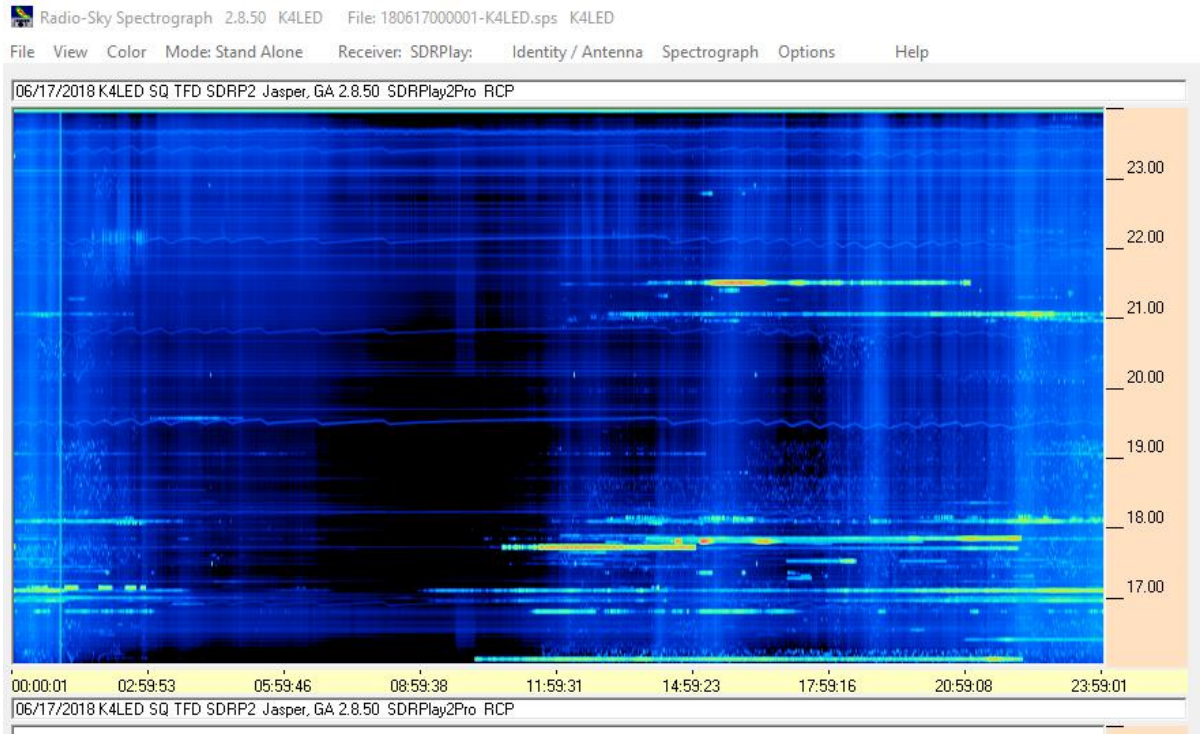
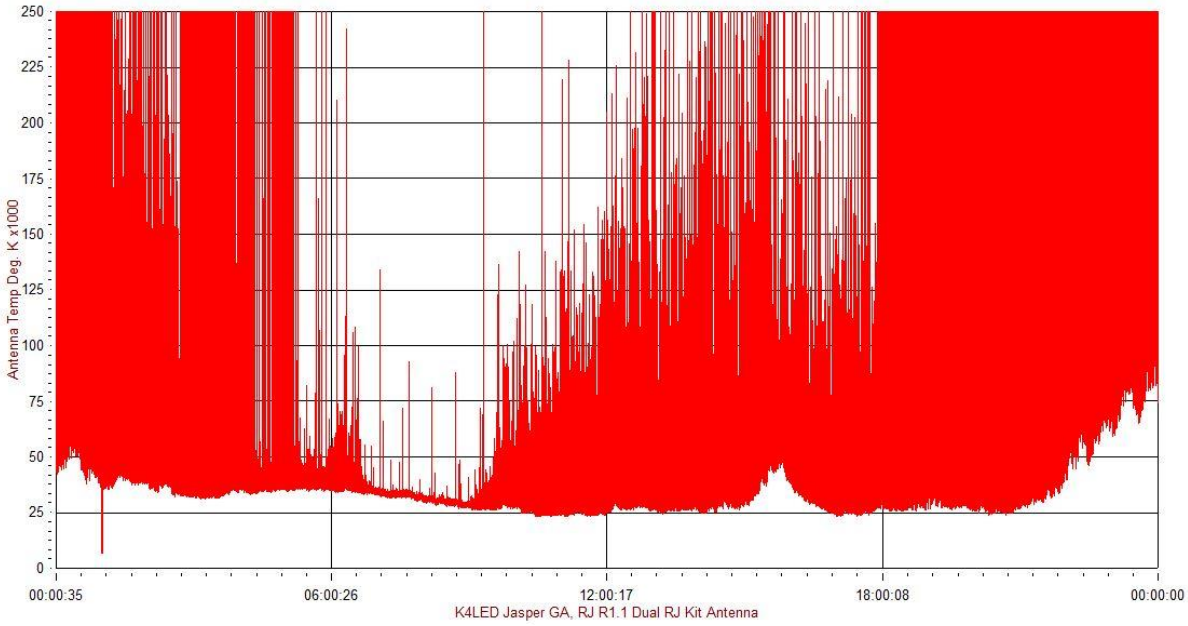
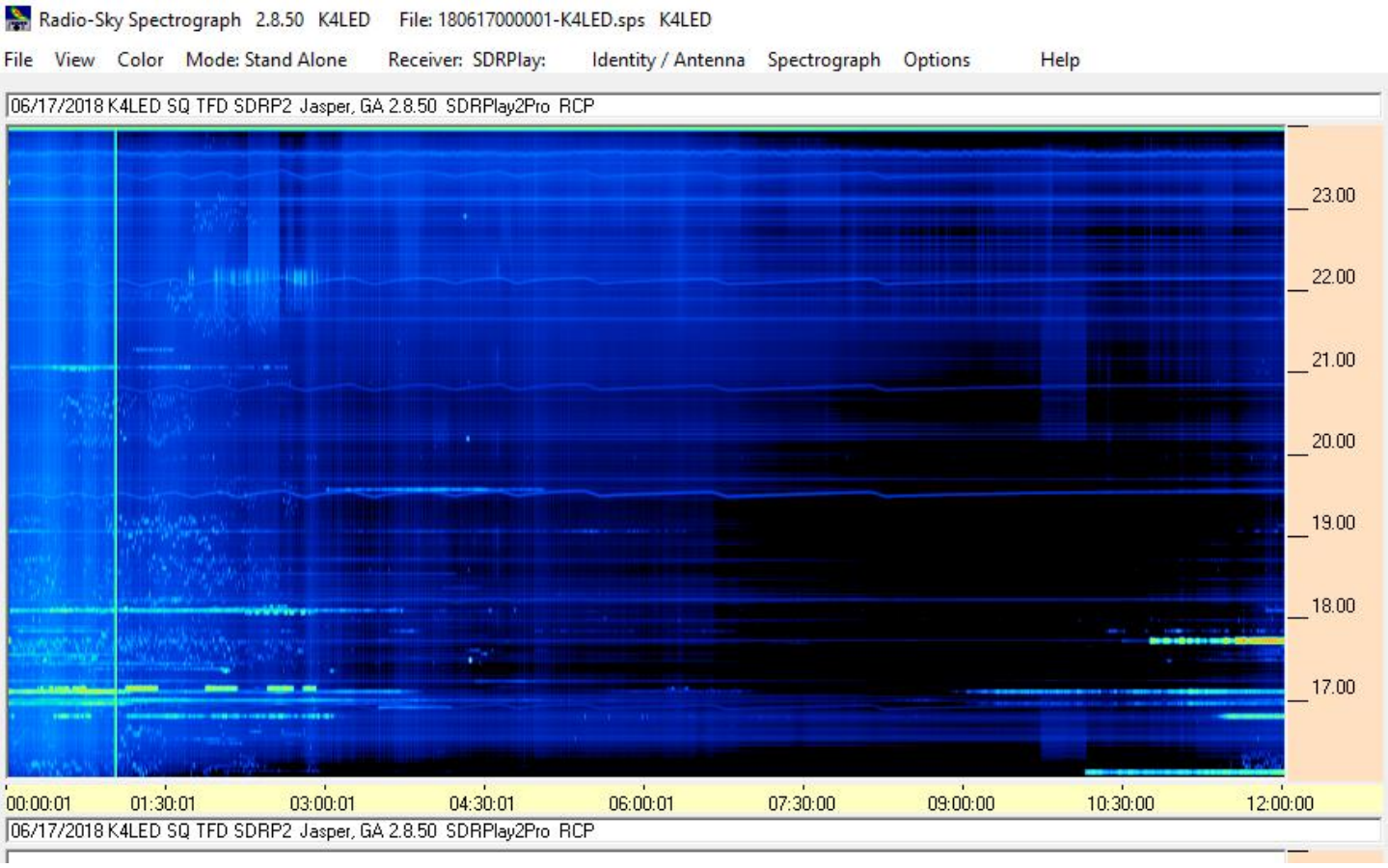
K4LED

Georgia Amateur Radio Astronomy Observatory

Observation Date: 06-17-2018, 0:00:00 to 23:59:00 UTC
Location: Lat. 34.42322 N, Lon. -84.49413 W (Jasper, GA 30143)
Object: TP, GB
Observer: Larry E. Dodd
Receivers: FSX11, SDRPlay2PRO, RJ1.1
Software: SkypipeII 2.7.34, Spectrograph 2.8.50
Antennas: Radio Jove Dual Dipole Kit, Typinski Square TFD



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File View Color Mode: Stand Alone Receiver: SDRPlay: Identity / Antenna Spectrograph Options Help
06/17/2018 K4LED SQ TFD SDRP2 Jasper, GA 2.8.50 SDRPlay2Pro RCP
23.00
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21.00
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18.00
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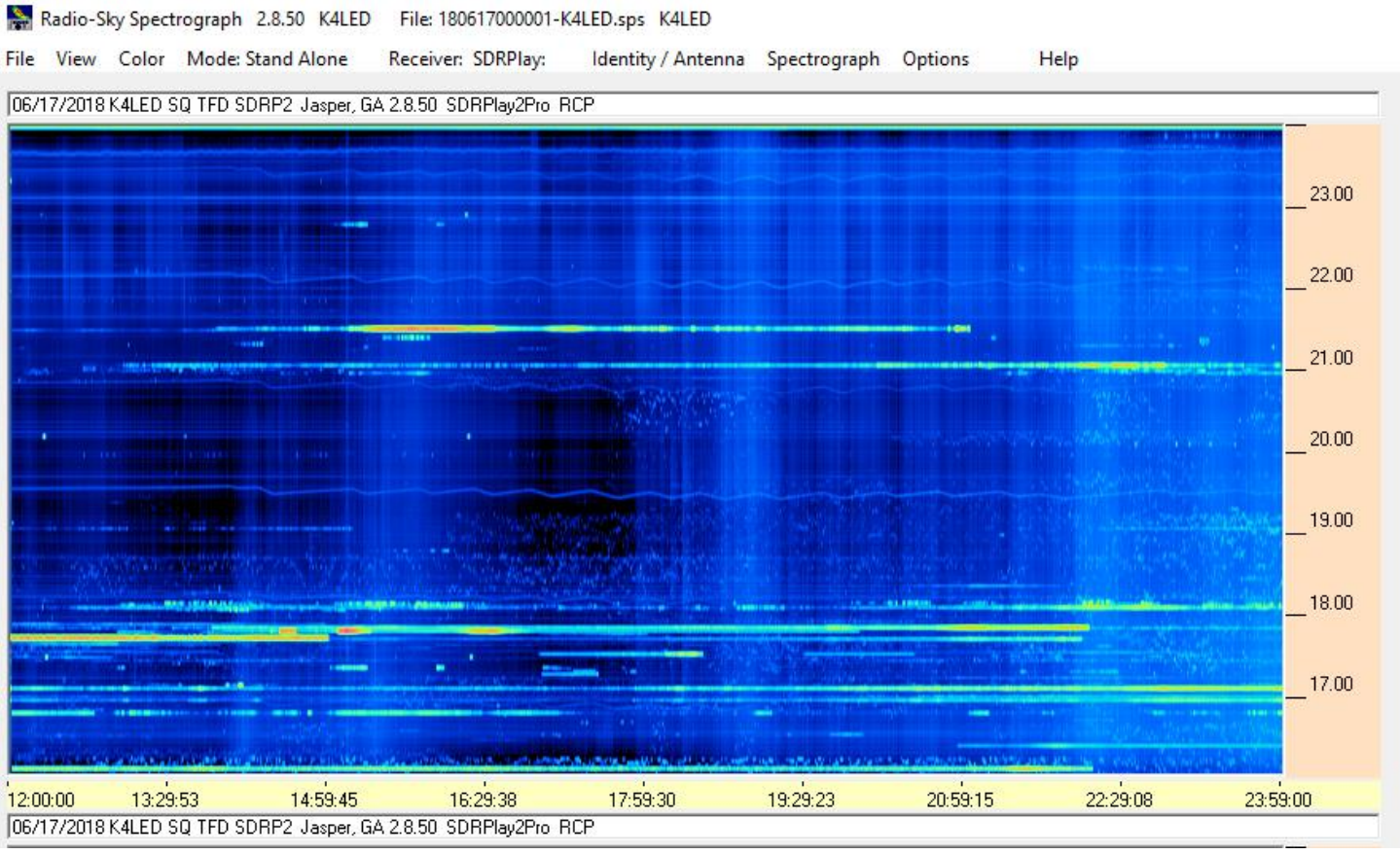
01:30:01
03:00:01
04:30:01
06:00:01
07:30:00
09:00:00
10:30:00
12:00:00
06/17/2018 K4LED SQ TFD SDRP2 Jasper, GA 2.8.50 SDRPlay2Pro RCP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06/17/2018 K4LED SQ TFD SDRP2 Jasper, GA 2.8.50 SDRPlay2Pro RCP
23.00
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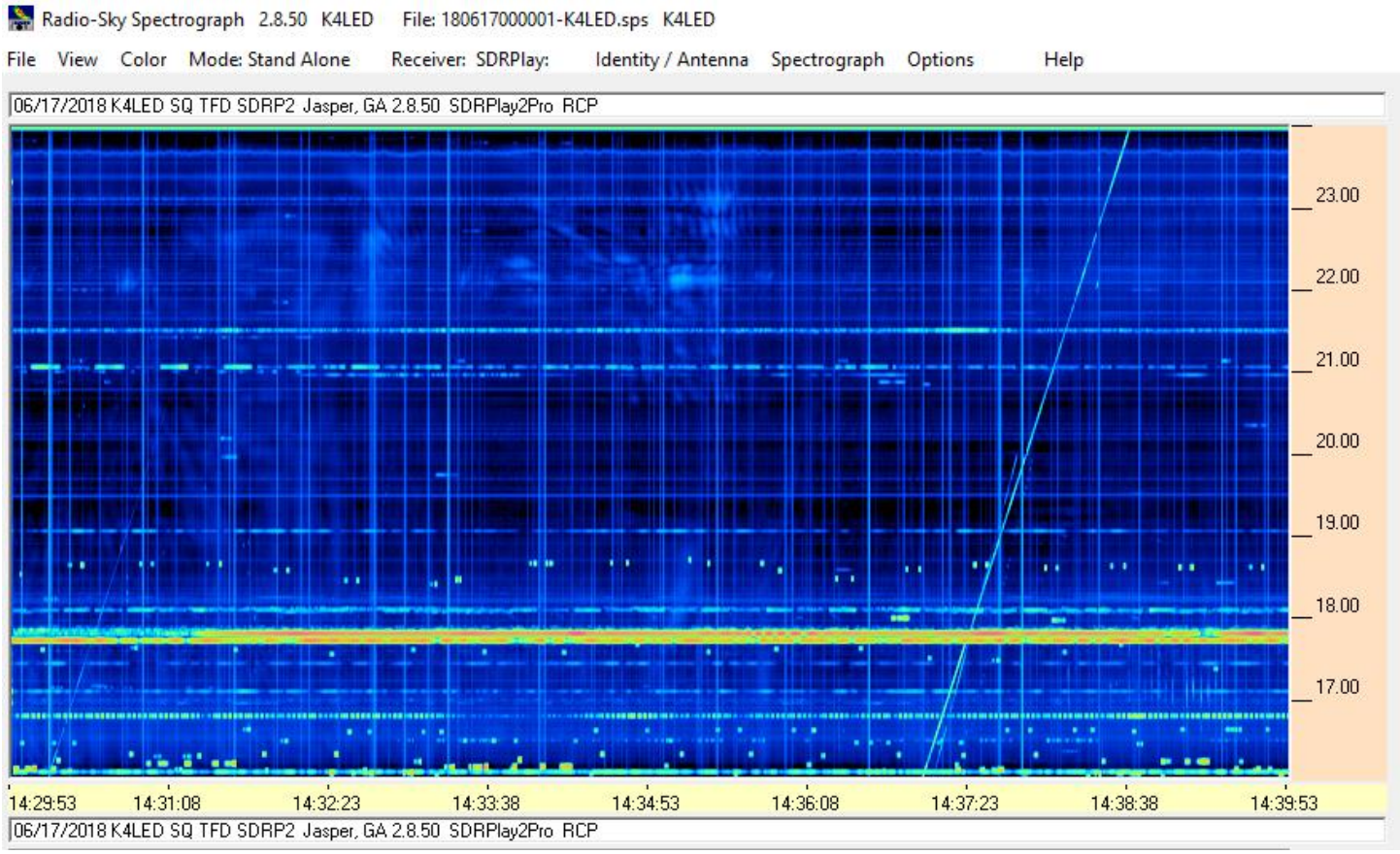
18.00
17.00
12:00:00
13:29:53
14:59:45
16:29:38
17:59:30
19:29:23
20:59:15
22:29:08
23:59:00
06/17/2018 K4LED SQ TFD SDRP2 Jasper, GA 2.8.50 SDRPlay2Pro RCP


Radio-Sky Spectrograph 2.8.50 K4LED File: 180617000001-K4LED.sps K4LED
File View Color Mode: Stand Alone Receiver: SDRPlay: Identity / Antenna Spectrograph Options Help
06/17/2018 K4LED SQ TFD SDRP2 Jasper, GA 2.8.50 SDRPlay2Pro RCP
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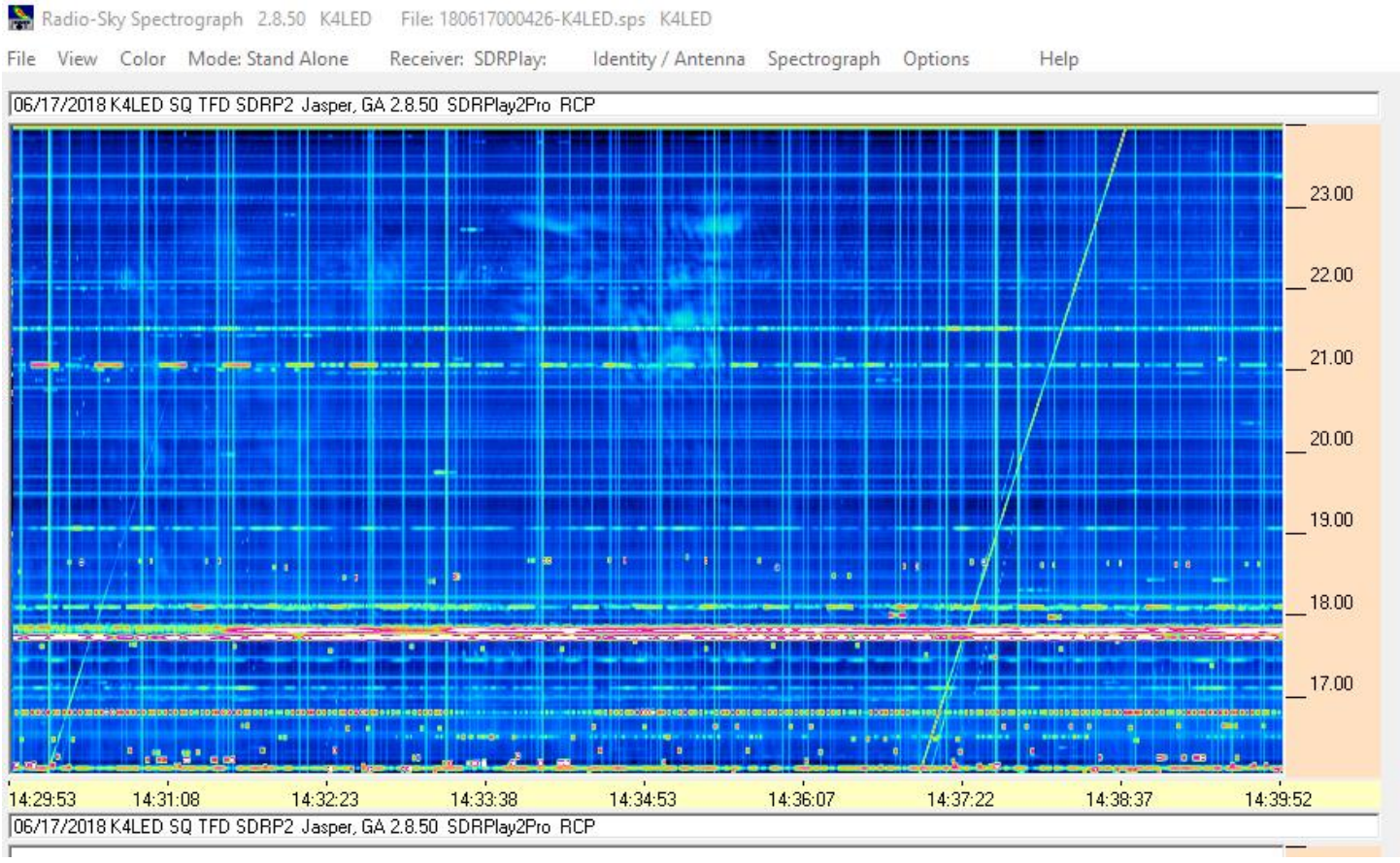
14:29:53 14:31:08 14:32:23 14:33:38 14:34:53 14:36:08 14:37:23 14:38:38 14:39:53
06/17/2018 K4LED SQ TFD SDRP2 Jasper, GA 2.8.50 SDRPlay2Pro RCP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06/17/2018 K4LED SQ TFD SDRP2 Jasper, GA 2.8.50 SDRPlay2Pro RCP
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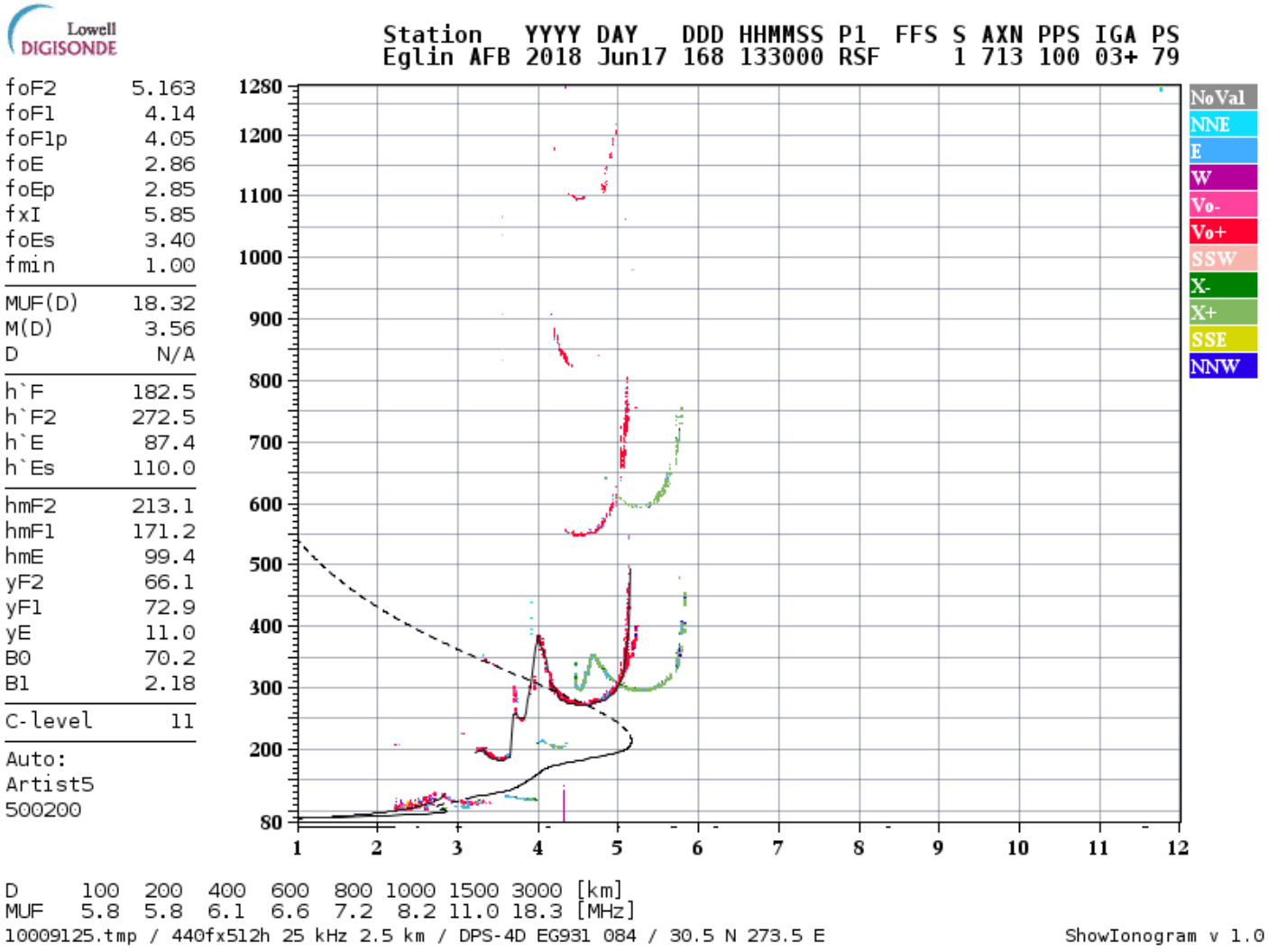
14:29:53 14:31:08 14:32:23 14:33:38 14:34:53 14:36:07 14:37:22 14:38:37 14:39:52
06/17/2018 K4LED SQ TFD SDRP2 Jasper, GA 2.8.50 SDRPlay2Pro RCP



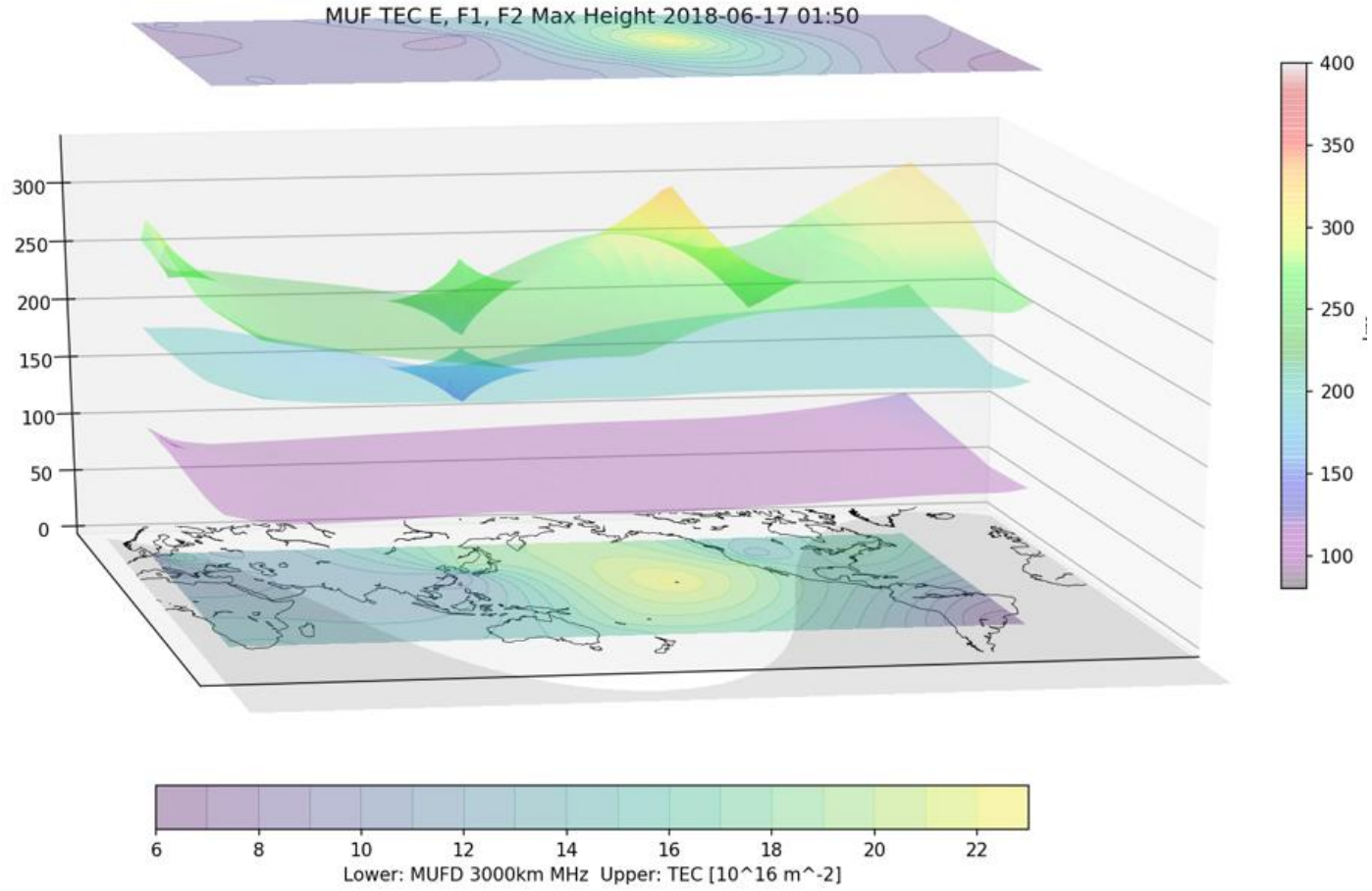
References for Interpreting the Ionogram:

http://www.sws.bom.gov.au/IPSHosted/INAG/uag_23a/UAG_23A_indexed.pdf

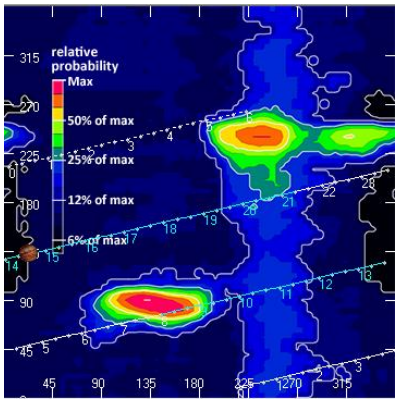
http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.404.5517&rep=rep1&type=pdf

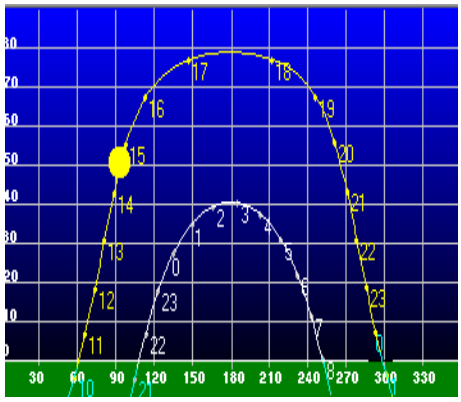
https://www.hfunderground.com/wiki/index.php/Ionosonde

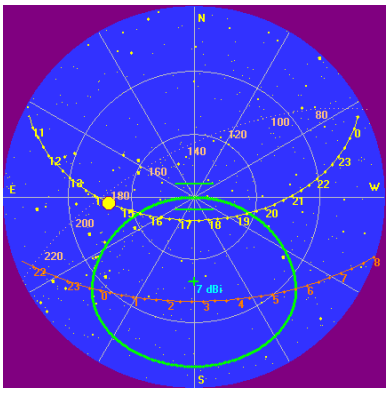
Ionosphere Layers, MUF, Total Electron Content

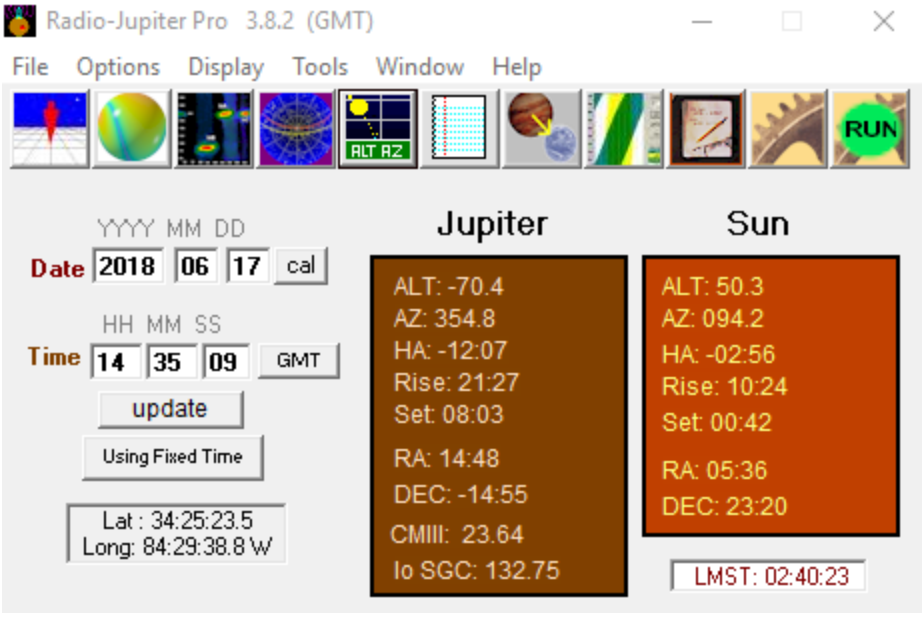


Data Global Ionospheric Radio Observatory (GIRO) Principal Investigator Prof. B. W. Reinisch UMass Lowell



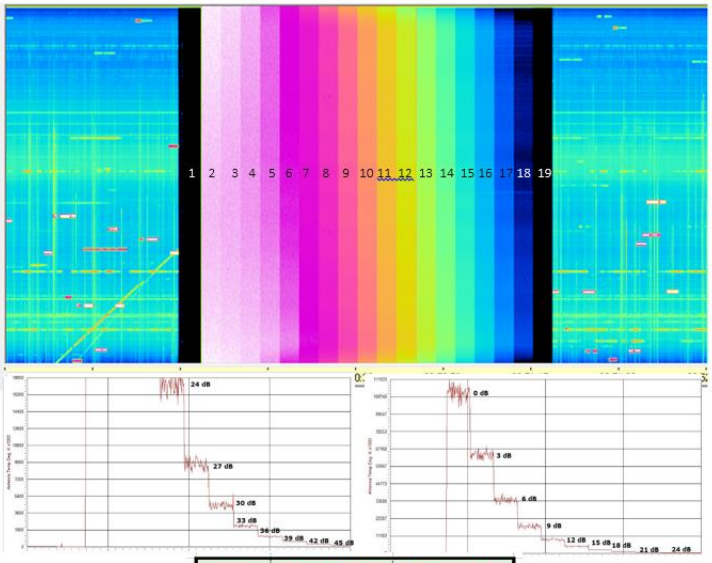






AUTOMATED CALIBRATION COLOR BAR TEST PATTERN AND DATA

ACTUAL MEASURED DATA



STEP	TEMPERATURE	ATTENUATION
1	>1 kK	101 dB
2	104.0 MK	0 dB
3	66.9 MK	3 dB
4	36.3 MK	6 dB
5	19.1 MK	9 dB
6	9.6 MK	12 dB
7	4.5 MK	15 dB
8	2.3 MK	18 dB
9	1.2 MK	21 dB
10	602.0 kK	24 dB
11	296.6 kK	27 dB
12	133.0 kK	30 dB
13	92.2 kK	33 dB
14	51.6 kK	36 dB
15	32 .0 kK	39 dB
16	22.6 kK	42 dB
17	17.9 kK	45 dB
18	12.0 kK	48 dB
19	>1 kK	101 dB

Larry

End of Report