

**MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
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October 18, 2022

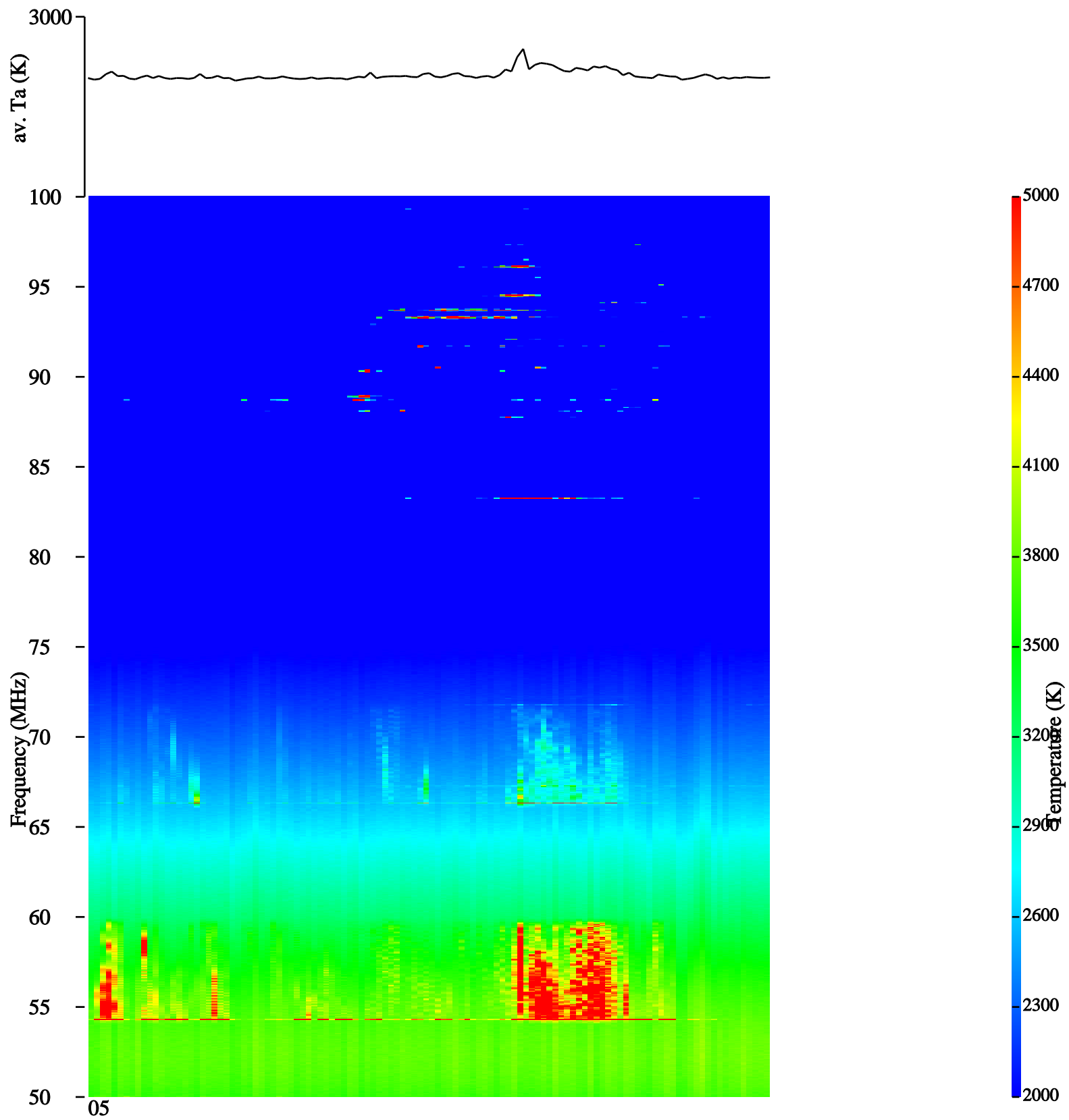
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To: EDGES Group  
From: Alan E.E. Rogers  
Subject: RFI from digital TV and FM at Devon Island

Digital TV channels 2 and 4 was present on days 223 at 05 UT and 224 at 01 UT. It is fairly certain that this is digital TV because the ATSC pilot signals for channels 2 and 4 at 54.31 and 66.31 MHz can be seen in the data shown in Figure 2. The identification of the location of the transmitters is less certain. The closest digital TV channels 2 and 4 I can find to Devon Island are about 2700 km away in Lloydminster on the border of Alberta and Saskatchewan.

In addition to the TV signals some FM signals can be seen in the waterfall plot in Figure 1 and in Figure 3. The FM station channels clearly seen are 88.1, 88.7, 88.9, 89.7, 90.3, 92.1, 92.9, 93.3, 93.7 and 99.3 MHz. The strongest is 88.9 MHz which might be the 20 kw station in Regina Saskatchewan about 2800 km from Devon Island.

As discussed in memo 397 the data taken in Devon Island is effected by broad band noise from the active Sun at times that agree with observations from solar radio observatories but is also effected by broad band noise of unknown origin. The occasional TV and FM RFI which probably come great distances show that the noise of unknown origin could be from power lines at large distance from the site like the power line noise reported by Obenberger et al. in Radio Science 56, no 2, (2021): 1-17.

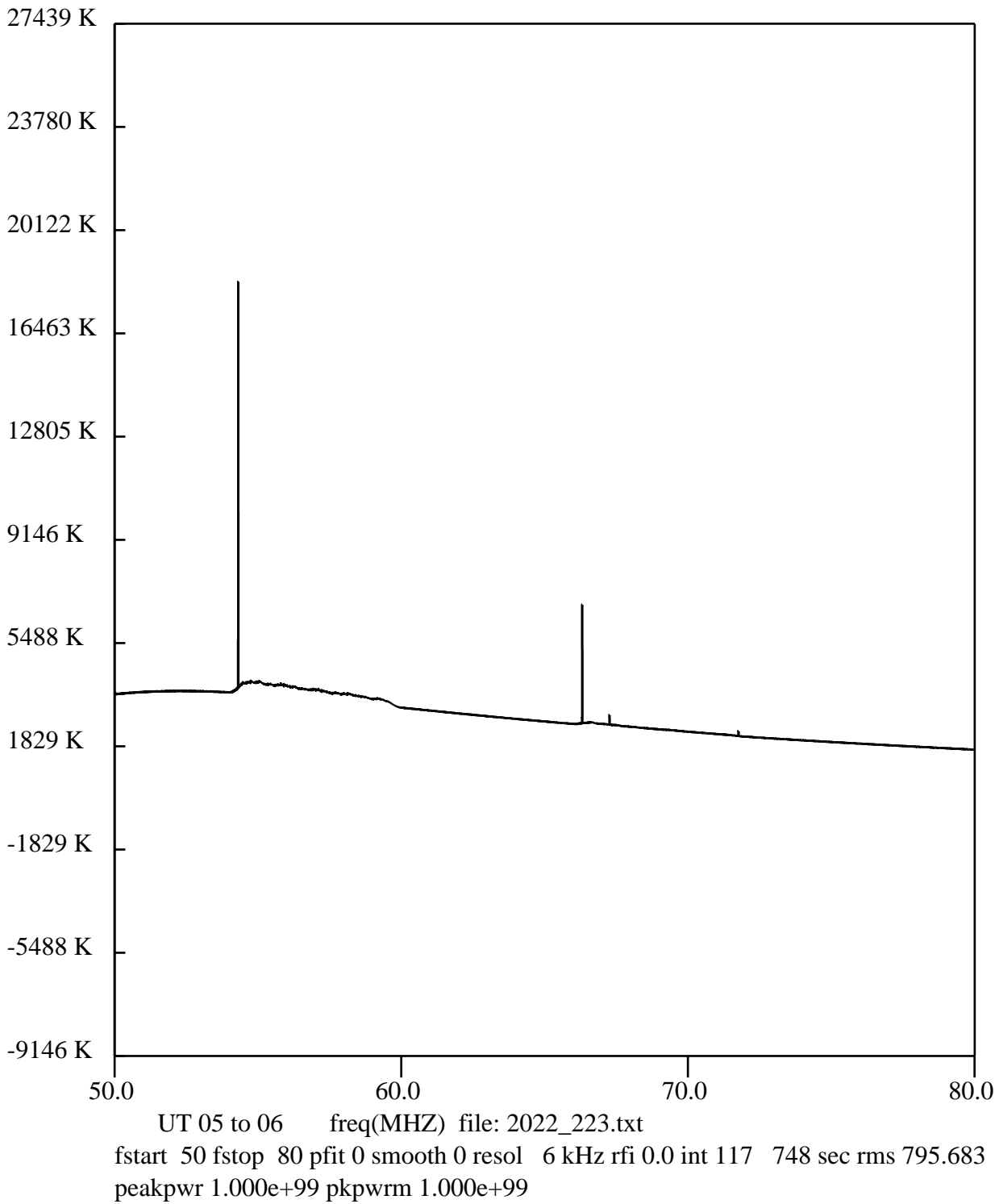


UT 5.5 to 5.6 hours

file:

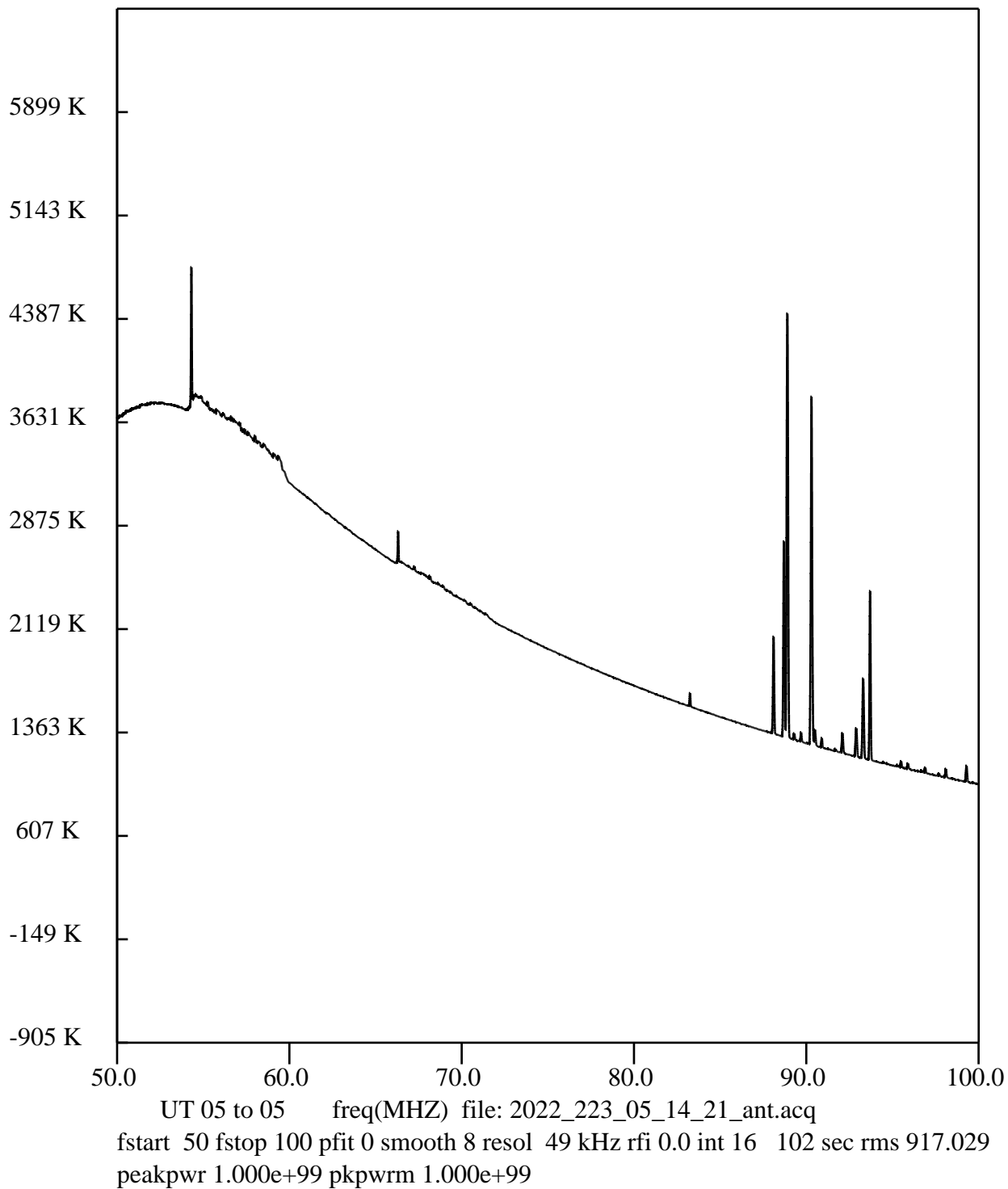
2022\_F023\_c054112\_31\_50\_2022  
 fstart 50 fstop 100 pfit 0 smooth 8 resol 49 kHz rfi 0.0 nline 117 secint 748

Figure 1. Waterfall plot of EDGE-3 taken at the Haughton Mars Project site on Devon Island from 5:30 to 5:36 UT on 11 August (day 223) 2022.



Mon Oct 3 07:56:46 2022

Figure 2. Plot of the spectrum for average of 6 minutes of data centered at 5:33 UT on day 223.



Fri Oct 14 12:47:24 2022

Figure 3. Average extended to cover 50 – 100 MHz to show FM signals.