# **Deep Space Exploration Society**

# SuperSID Observation Results July 2016

Astronomer and Analyst: Dr. Richard Russel, <a href="mailto:drrichrussel@netscape.net">drrichrussel@netscape.net</a>

AAVSO Observer ID: A147

#### **Observation Methodology:**

The observations were made with a standard SuperSID system at Dr. Russel's house at Colorado Springs, CO.

The results were analyzed using SidGrabber software.

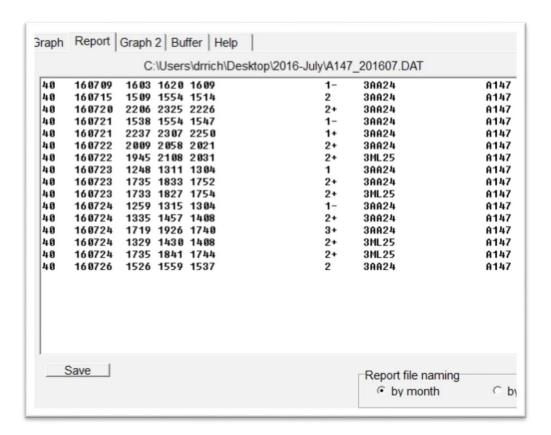
The stations observed were NAA and NML.

#### **SidGrabber Report Results:**

Example...

Date	Start	End	Max	Station	Observer
160709	1603	1620	1609	3AA24	A147

#### Results Report:



The Importance is related to the duration of event by:

<b>Duration</b>	<u>Importance</u>
< 19 minutes	1-
19-25	1
26-32	1+
33-45	2
46-85	2+
86-125	3
>125	3+

The Confidence is based on the observer:

<u>Confidence</u>	<b>Definition</b>
Questionable	0
Possible	1
Fair	2
Reasonable	3

Reasonably Definite 4
Definite 5

#### **Summary:**

The SuperSID radio telescope at Dr. Russel's house in Colorado Springs, CO has good reception on the NAA broadcast station and only fair reception for the NML broadcast station.

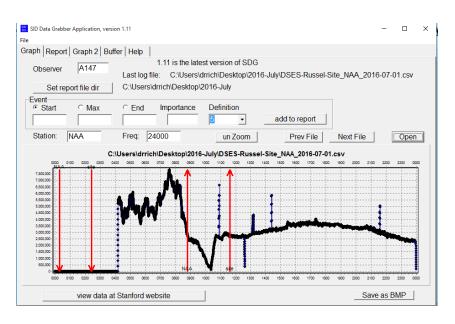
There were numerous C flares this month and one M flare on July 24.

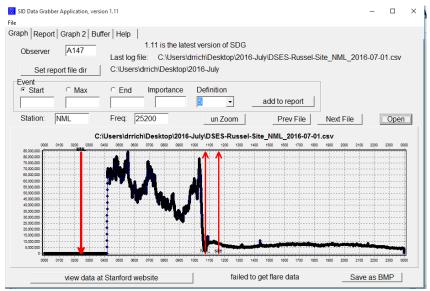
#### **Improvements Planned:**

- Move the system to Plishner to limit spurious signals
- Raise the antenna to a high point to attempt to improve gain

#### **Observations:**

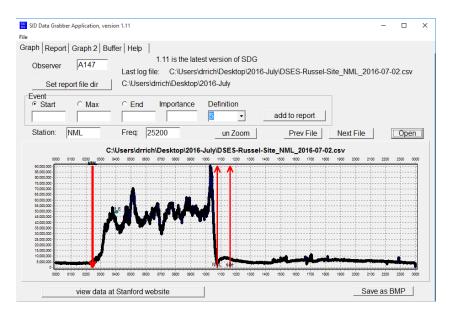
#### July 1, 2016

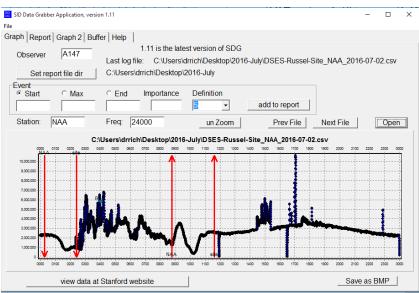




#### July 2, 2016

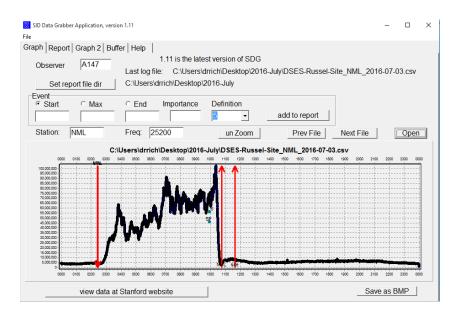
# Results: No activity noted





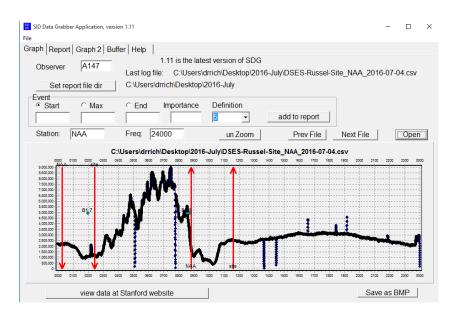
ر

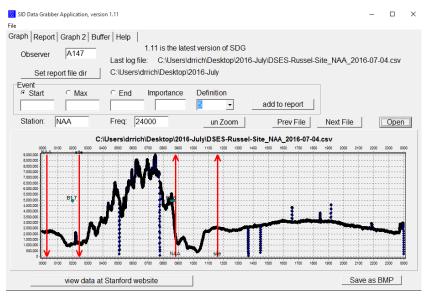
#### July 3, 2016



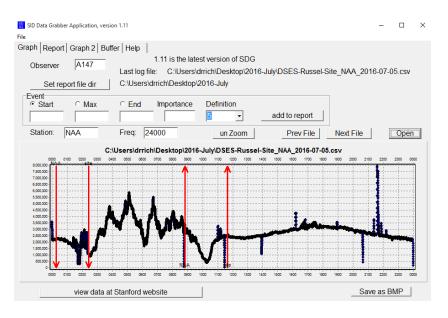


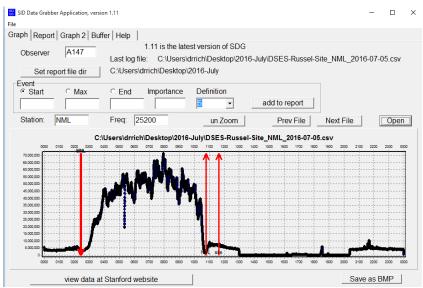
#### July 4, 2016



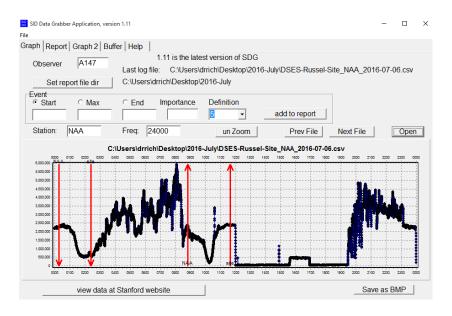


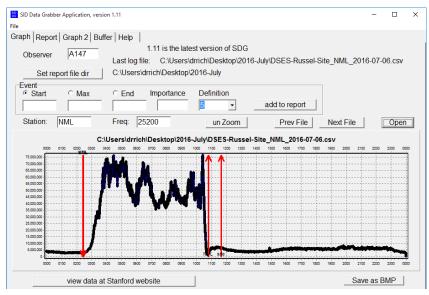
#### July 5, 2016



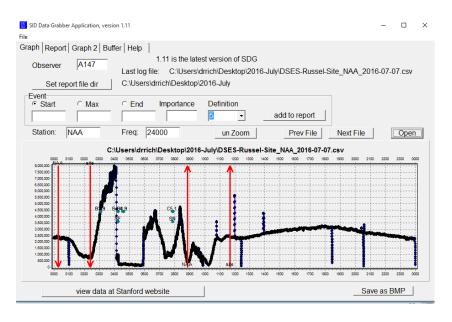


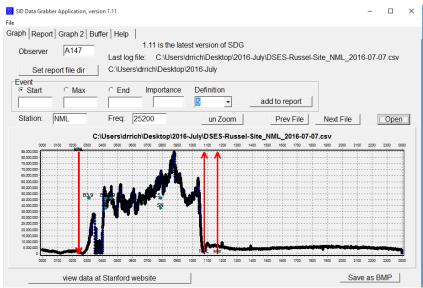
#### July 6, 2016





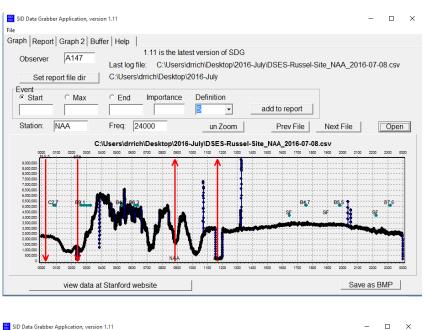
# July 7, 2016

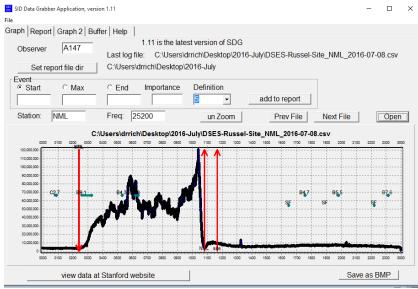




#### July 8, 2016

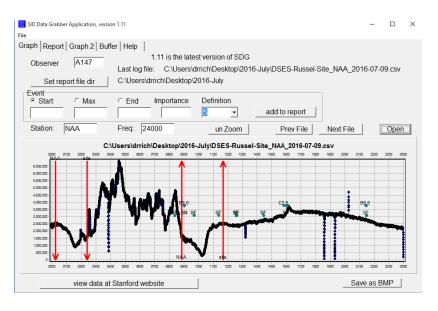
**Results:** There were B7.6 flares however no detections were noted.

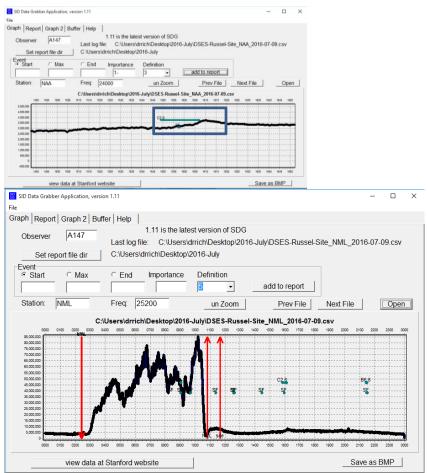




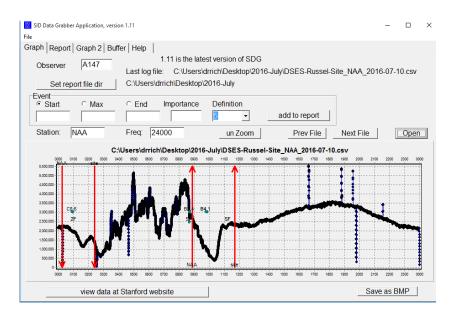
#### July 9, 2016

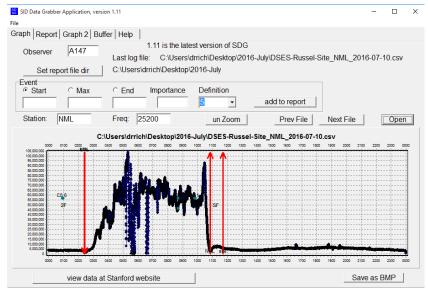
#### Results: NAA and NML C2.6 Flare detection





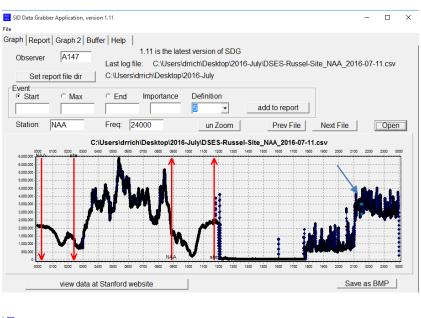
#### July 10, 2016

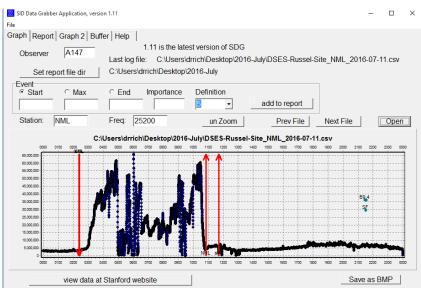




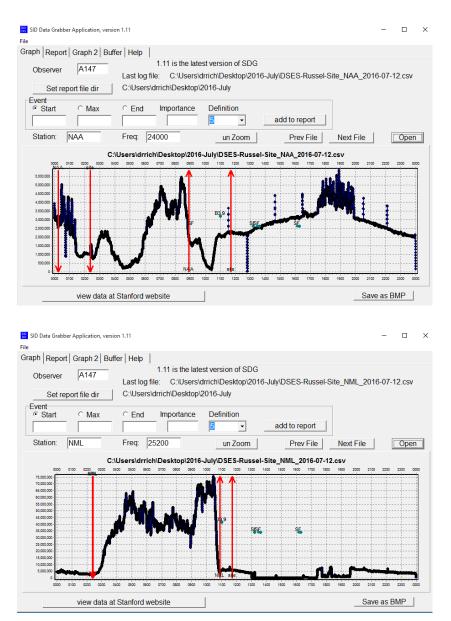
#### July 11, 2016

#### Results: B9.4 flare at 2130 but NAA had significant interference





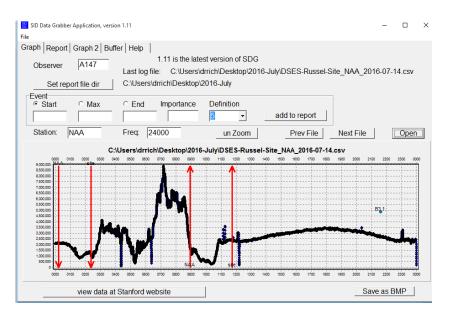
#### July 12, 2016

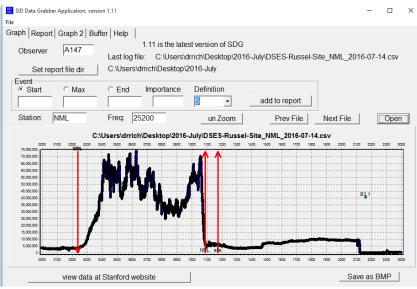


#### July 13, 2016



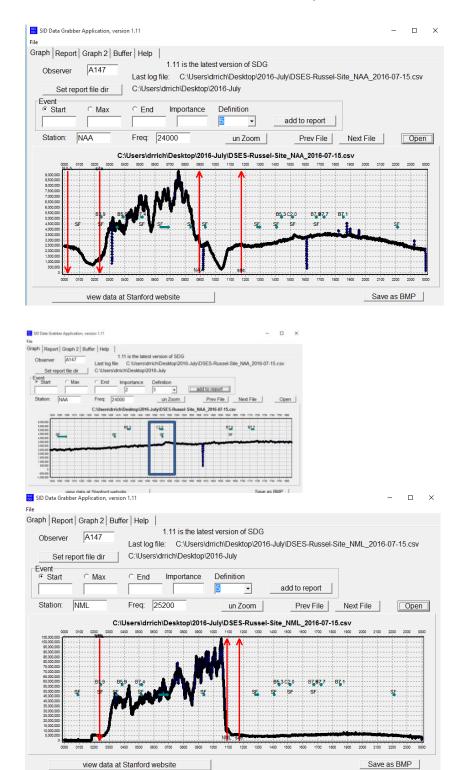
#### July 14, 2016



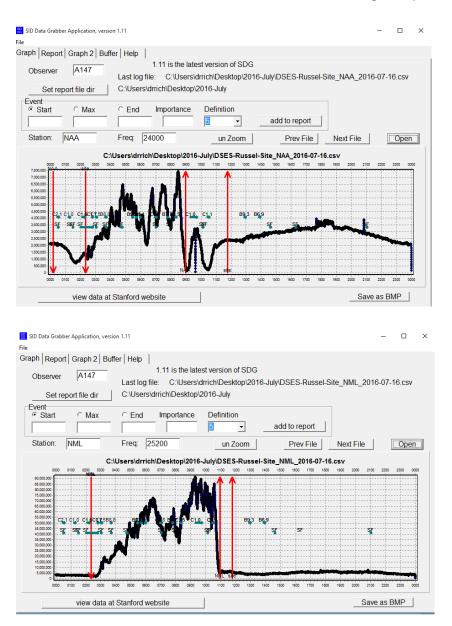


#### July 15, 2016

Results: C2.0 Flare detected at 1510z by NAA.

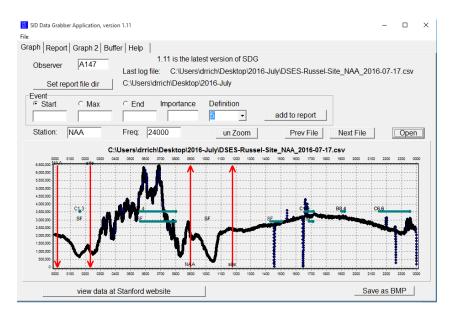


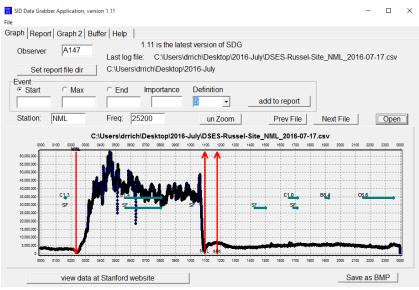
#### July 16, 2016



#### July 17, 2016

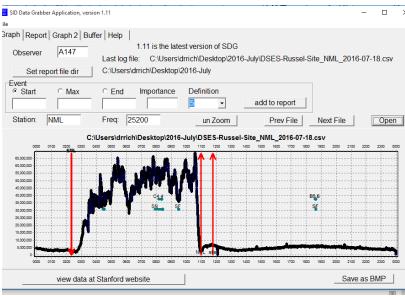
Results: NAA and NML did not detect the C1.0 or C6.6 flares during this period





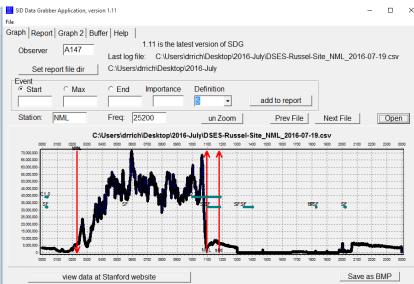
#### July 18, 2016





#### July 19, 2016





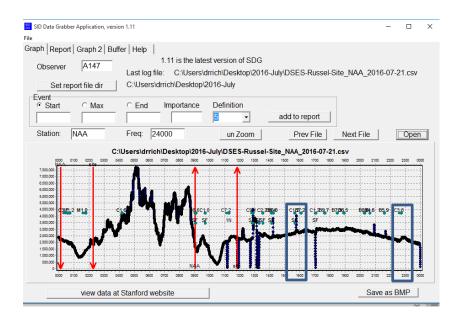
#### July 20, 2016

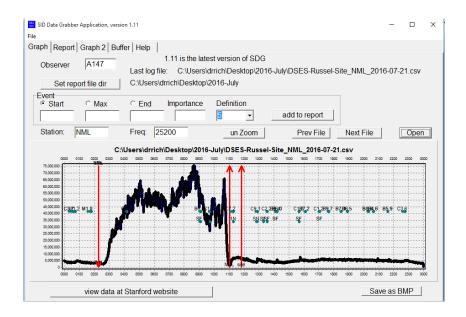
**Results:** NAA and NML detected a C4.6 flare at 2210z but did not detect the follow on C3+ flares



#### July 21, 2016

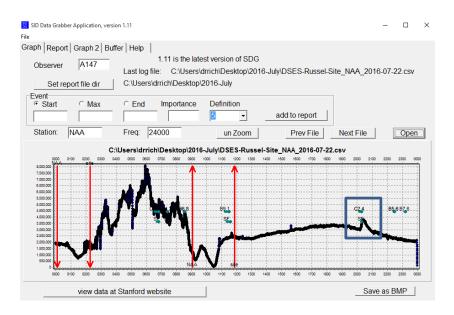
Results: 1538 and 2257 C flares detected

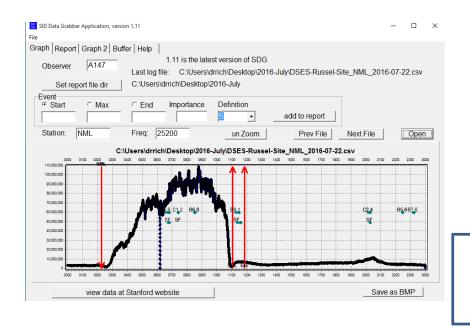




#### July 22, 2016

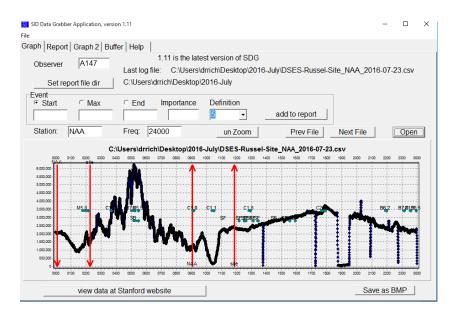
#### Results: C2.4 Flare noted around 2200z by both NAA and NML

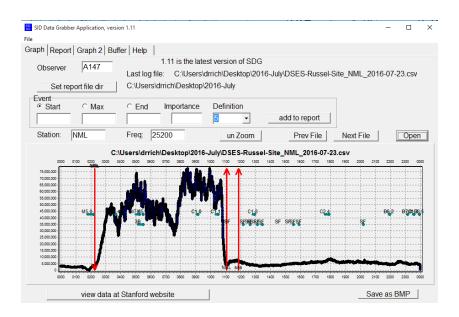




#### July 23, 2016

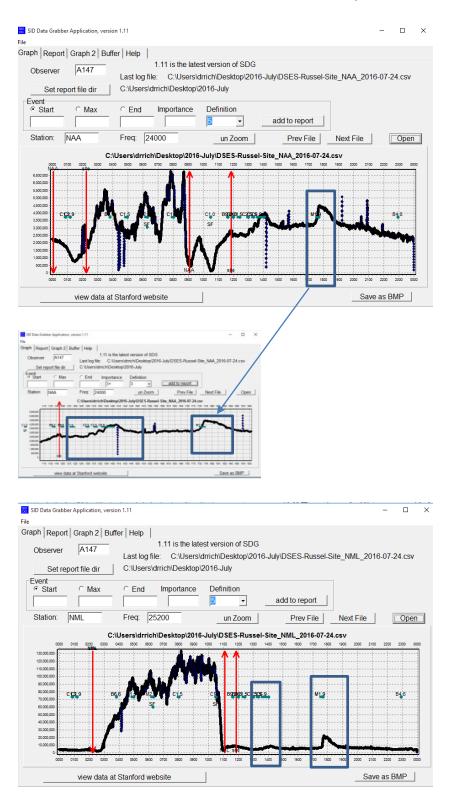
Results: Multiple C1+ flares noted by both NAA and NML



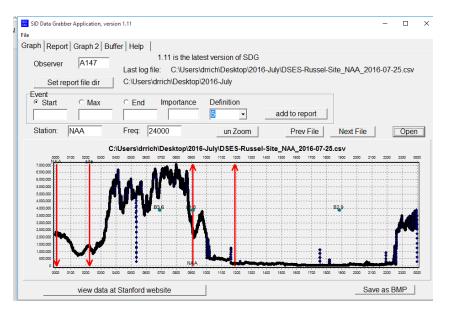


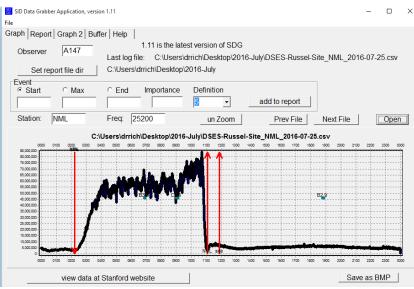
#### July 24, 2016

Results: M1.9 Flare and some C flares noted by NAA and NML



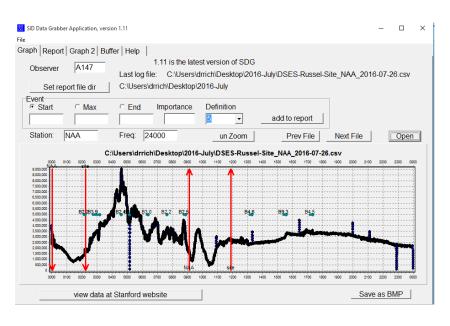
#### July 25, 2016

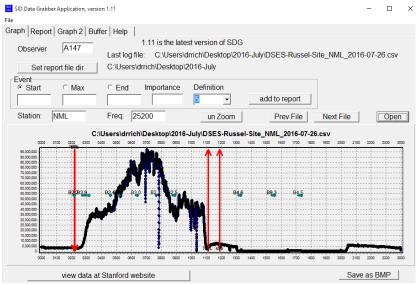




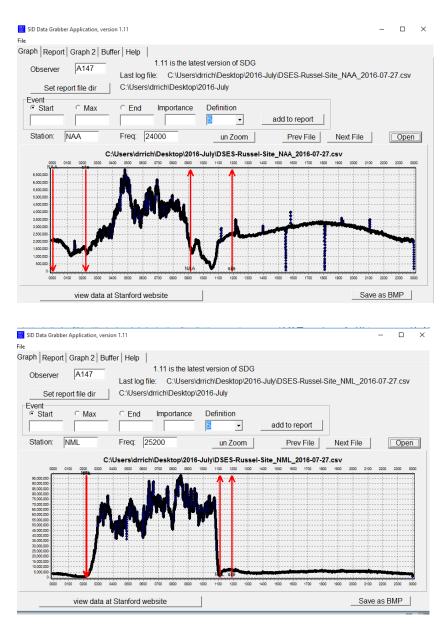
#### July 26, 2016

Results: NAA detected B9.3 flare. NML did not detect the flare

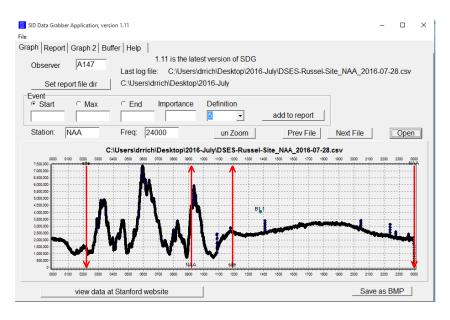


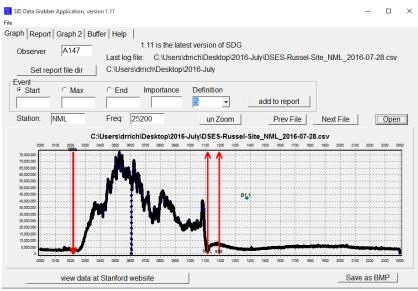


#### July 27, 2016

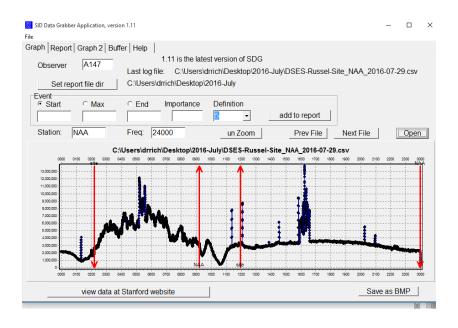


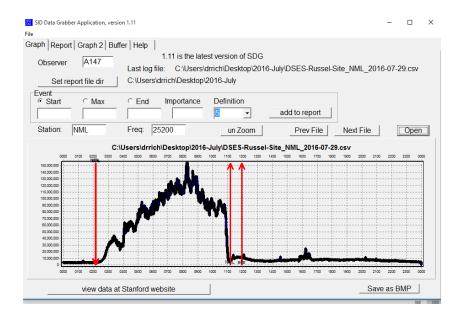
#### July 28, 2016



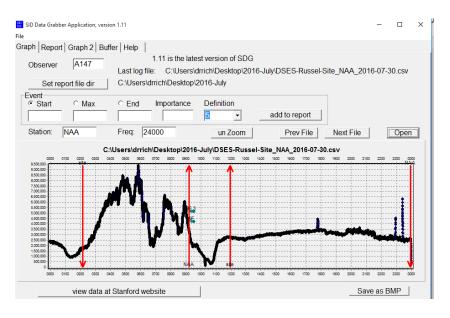


#### July 29, 2016





#### July 30, 2016





#### July 31, 2016

