

Date	Brightness	Brightness uncertainty	Baseline brightness: computation	Baseline brightness	sigma	Amplitude	Upper limit (days)	Lower limit	Time flare next
56498.2898	18.39790	0.02989	(18.65268+18.77178)	18.7122	0.00	0.3143	10.0627	n/a	
56550.4483	17.98800	0.01862	(18.56471+18.68288)	18.6238	0.00	0.635795	3.97279	0.08167	
56576.4840	17.32226	0.02171	(18.80720+18.63781)	18.7225	0.00	1.40025	7.88023	0.15194	
56587.1214	18.21431	0.02336	(18.64466+18.67758)	18.6611	0.00	0.44681	12.7522	0.13066	
56602.2788	18.33784	0.05077	(18.79335+18.64600)	18.7197	0.00	0.381835	6.73147	2.14726	
56659.1119	18.40881	0.02983	(18.64455+18.73422)	18.6894	0.00	0.280575	9.9555	0.02483	
56668.1122	18.37771	0.04404	(18.65229+18.66824)	18.6603	0.00	0.282555	11.9808	2.00182	
56683.0999	17.83881	0.01948	(18.79787+18.71816)	18.758	0.00	0.919205	16.973	2.00928	
56775.4946	18.27491	0.03401	(18.79659+18.58158)	18.6891	0.11	0.414175	5.98279	n/a	
56845.4524	18.03303	0.03863	(18.68178+18.63426)	18.658	0.00	0.62497	17.9882	0.02642	
56869.4624	17.77066	0.05609	(19.07385+18.67149)	18.8727	0.11	1.10204	14.0987	0.09792	
56876.4889	18.37019	0.03134	(18.81396+18.62607)	18.72	0.00	0.13111	9.96191	n/a	
56979.2182	18.38491	0.05405	(18.77623+18.59665)	18.6864	0.00	0.30149	13.9908	n/a	
56988.1604	18.30055	0.05029	(18.77675+18.61096)	18.6939	0.00	0.393305	1.96299	n/a	
57015.1189	18.16953	0.12564	(18.80616+18.53581)	18.671	0.00	0.501455	3.0014	n/a	
57042.1477	17.62844	0.05205	(18.85305+18.81644)	18.8347	0.10	1.2063	5.98805	1.00005	
57063.1200	18.22987	0.07481	(18.82522+19.02690)	18.9261	0.00	0.69619	5.02027	n/a	
57239.4250	17.89612	0.04303	(18.88039+18.65439)	18.7674	0.00	0.87127	5.93077	1.94395	
57245.3399	18.28351	0.05380	(18.88039+18.65439)	18.7674	0.00	0.48389	8.97091	2.99749	

# Flare calculations (updated - $\geq 5$ sigma baseline only)

Saturday, June 10, 2017

Mean in flare amplitude: 0.625356 mags

Uncertainties in the amplitudes: calculated from adding squares of uncertainties in flare magnitudes in quadrature: gives 0.219377 mags

Mean in upper limit of flare dates: 9.06909 days (SD: 4.73282 days)

Mean in lower limit of flare dates: 1.05111 days (SD: 1.09623 days)

Time between flares: 41.5028 days (SD: 44.7068 days)

Mathematica commands:

%% Mean of the flare amplitudes

```
amp = {0.3143, 0.635795, 1.40025, 0.44681, 0.381835, 0.280575,  
       0.282555, 0.919205, 0.414175, 0.62497, 1.10204, 0.30149,  
       0.393305,  
       0.501455, 1.2063, 0.69619, 0.87127, 0.48389}  
baselineSigma := {0.03559, 0.03758, 0.05313, 0.033365, 0.04315,  
                  0.050415, 0.04275, 0.03638, 0.11423, 0.033625, 0.11978,  
                  0.04742,  
                  0.033405, 0.04685, 0.10082, 0.065085, 0.04742, 0.047420}  
ampSigma := {0.02989, 0.01862, 0.02171, 0.02336, 0.05077,  
             0.02983,  
             0.04404, 0.01948, 0.03401, 0.03863, 0.05609, 0.05405, 0.05029,  
             0.12564, 0.05205, 0.07481, 0.04303, 0.05380}
```

%% Uncertainty in magnitude of amplitudes:

# Flare calculations (updated - >= 5 sigma baseline only)

Saturday, June 10, 2017

```
Table[Sqrt[ Part[baselineSigma, i]^2 + Part[ampSigma, i]^2], {i, 1, Length[baselineSigma]}]
```

%% returns

```
{0.0464764, 0.04194, 0.0573944, 0.0407298, 0.0666297, 0.058579, \
0.0613766, 0.0412671, 0.119185, 0.0512144, 0.132262, 0.0719031, \
0.0603737, 0.134091, 0.113463, 0.0991594, 0.0640331, 0.0717154}
```

%% Uncertainty in mean of amplitudes

```
Sqrt[Sum[(Part[ampSigma, i])^2, {i, Length[ampSigma]}]]
```

%% Defining the list of upper limits of flares

```
upperLim = {10.0627, 3.97279, 7.88023, 12.7522, 6.73147, 9.9555, \
11.9808, 16.973, 5.98279, 17.9882, 14.0987, 13.9908, 1.96299, \
3.0014, 5.98805, 5.02027, 5.93077, 8.97091}
```

```
Mean[upperLim]
```

```
StandardDeviation[upperLim]
```

%% Finding time between flares

```
timeOfFlares = {56498.28980, 56550.44832, 56576.48402, \
56587.12142, \
56602.27883, 56659.11190, 56668.11222, 56683.09992, \
56775.49464, \
56845.45242, 56869.46248, 56876.48899, 56979.21826, \
56988.16044, \
57015.11895, 57042.14770, 57063.12001, 57239.42503, \
57245.33991}
```

```
timeBetweenFlares = Table[Part[timeOfFlares, i + 1] - \
Part[timeOfFlares, i], {i, 1, \
Length[timeOfFlares] - 1}]
```

# Flare calculations (updated - $\geq 5$ sigma baseline only)

Saturday, June 10, 2017

```
{52.1585, 26.0357, 10.6374, 15.1574, 56.8331, 9.00032, 14.9877,  
\n92.3947, 69.9578, 24.0101, 7.02651, 102.729, 8.94218, 26.9585, \  
27.0288, 20.9723, 176.305, 5.91488}
```