

Solar Report – July 2013



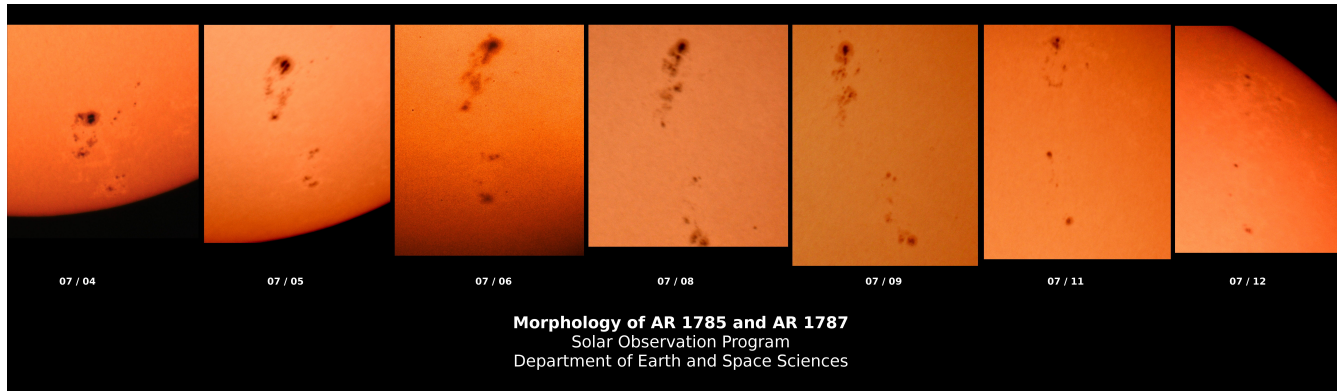
Solar Observation Program
Department of Earth and Space Sciences, Rizal Technological University

The **RTU-ESS Solar Observation Program (SOP)** is a program that means to develop the skills and knowledge of solar observers as well as contribute to science through data gathering, archiving, and distribution. The SOP is concerned with conducting statistical and morphological studies of the Sun using its ground based equipments.

July is characterized as a month that falls in the rainy seasons. We have been able to cover only 12 days for the month of July with one date having two observing sessions. Cloudy to overcast skies dominated the rest of the days of July. The Northern hemisphere of the Sun has become quiet with a mean of 0.76 for the number of sunspot groups. This signifies the coming flip of the Sun's polarity as part of the 22-year magnetic cycle. The year 2013 is the solar maximum and the magnetic pole reversal signifies the end of the first half of the solar maximum. The Southern hemisphere however has shown a 2.61 mean for sunspot groupings, and is expected to reverse its polarity as well in the coming months. The smoothed sunspot number R for the month of July is 76.58.

July	Gn	Sn	Gs	Ss	ΣG	ΣS	R
1	2	13.2	2	5.9	4	19.1	59.1
4	1	1	3	44	4	45	85
5	0	0	3	58.5	3	58.5	88.5
6	0	0	3	61	3	61	91
8	0	0	3	62	3	62	92
9	0	0	3	68	3	68	98
11	0	0	2	46	2	46	66
11	0	0	2	34	2	34	54
12	0	0	2	24	2	24	44
16	2	17	1	28	3	45	75
18	1	19	3	23	4	42	82
19	2	23	5	10	7	33	103
26	2	3	2	15	4	18	58
Total	10	76.2	34	479.4	44	555.6	995.6
Ave	0.76	5.86	2.61	36.87	3.38	42.73	76.58

Two active regions have become particularly dominant – AR 1785 and AR 1787. They have grown in significant size and persisted for several days as it traverses the solar disc. The series of images below depict the evolution of this two sunspot groups over a period of several days. [Full disc images are available at <http://rtuess.weebly.com/solar-observation-program.html>]



Below is the listing of the McIntosh sunspot classifications both ARs based on the observations we conducted at the SOP.

Date	AR 1785	AR 1787
4	Fhc	Dsc
5	Ehc	Eac
6	Fhc	Eac
8	Fsc	Fkc
9	Fhc	Eac
11	Eac	Fac
12	Eri	Eac

Wish to get involved as a student solar researcher or volunteer for the SOP?
Contact Norman Marigza at the RTU-ESS office or email at nmarigza@yahoo.com

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