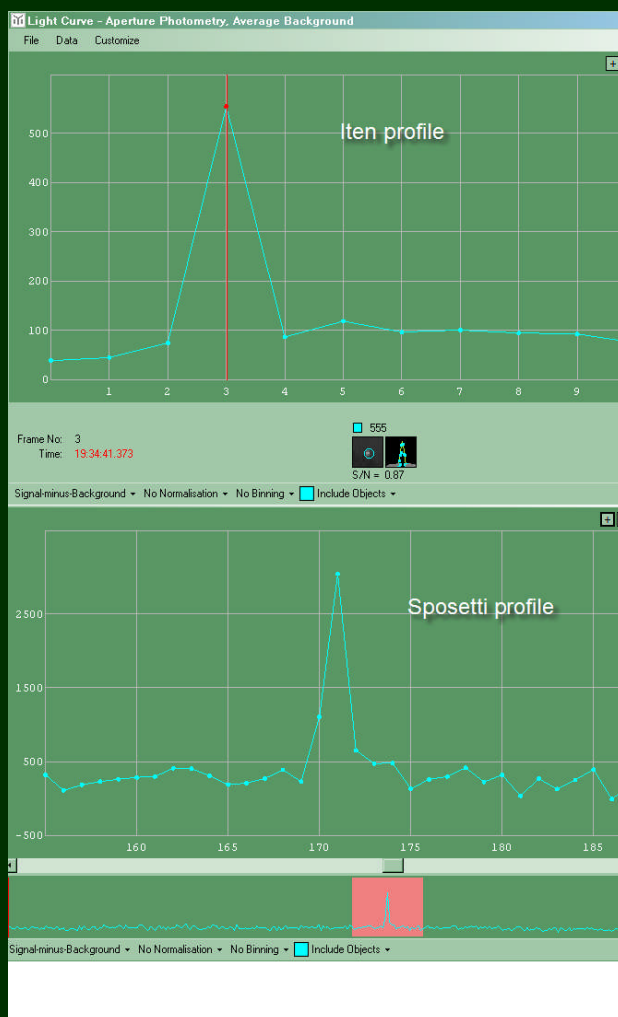
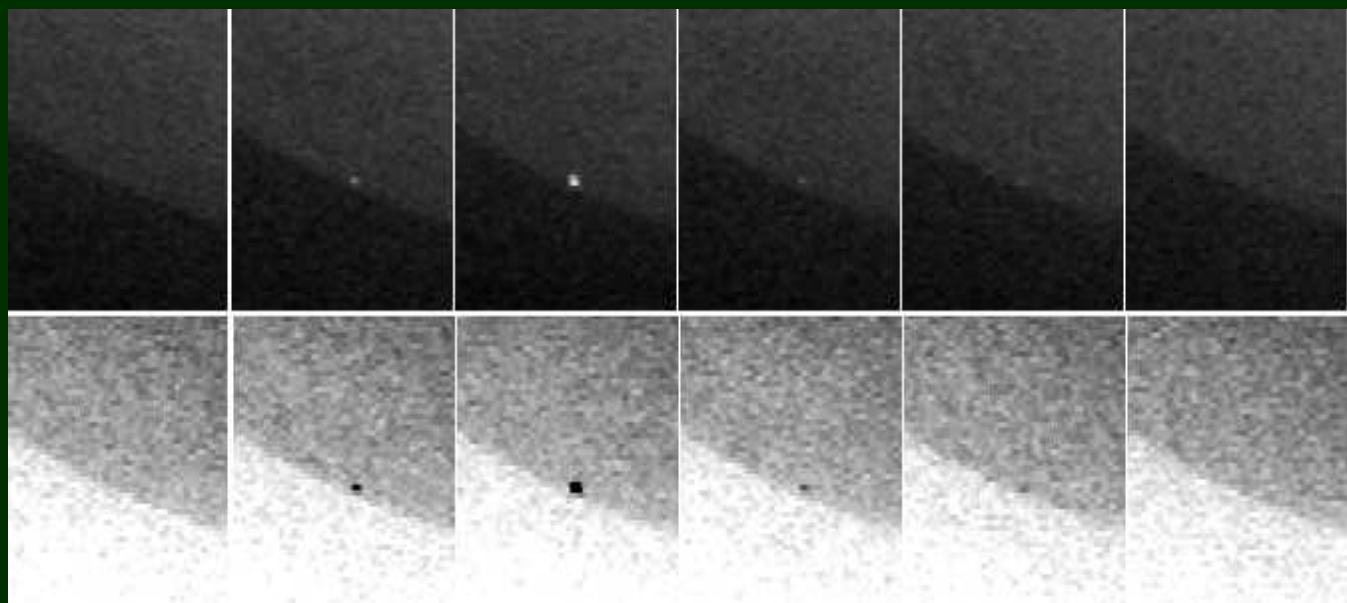


SELENOLOGY TODAY



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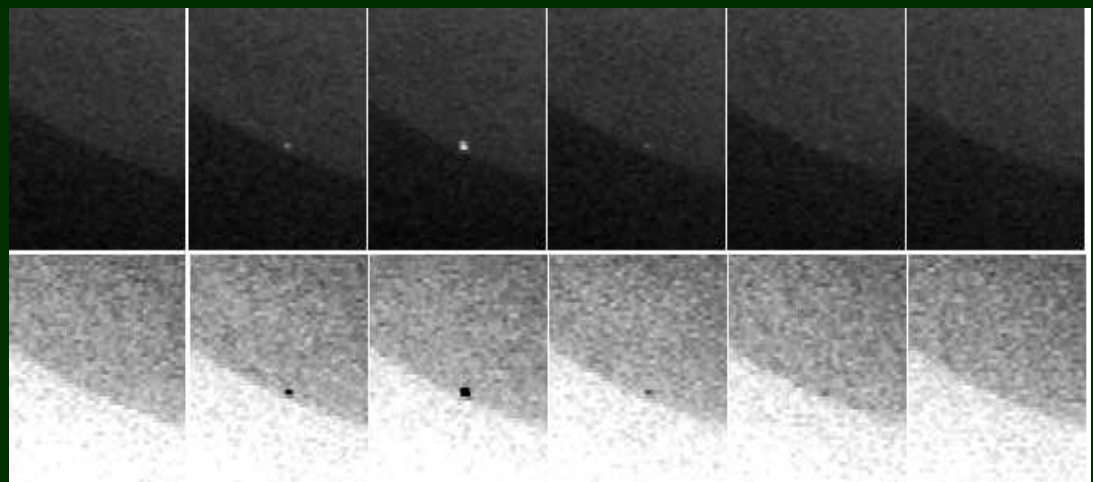
selenology_today@christian-woehler.de

C. Wöhler

C. Wood

Cover

Stefano Sposetti



Special edition 2011. A probable impact on the Moon detected by S. Sposetti and M. Iten: February 11, 2011 .

A project about the crater detection using LRO imagery.

A probable impact on the Moon : February 11, 2011

By Stefano Sposetti, Gnosca Observatory, Switzerland

During the monitoring of the earth lit Moon surface in the evening of February 11 2011, Marco Iten and I detected a lunar flash. Both AVI files showed up an evident simultaneous flash of light located on the lunar surface. The analysis is under way but here we present some preliminary results.

MARCO ITEN: Setup and Location

Telescope Borg 125 ED refractor

Videocam WAT-902H2 Ultimate

Time inserter KIWI-OSD

Software Virtualdub

Observatory E longitude 08:52:28.6

Observatory N latitude 46:10:43.7

Observatory height 210m

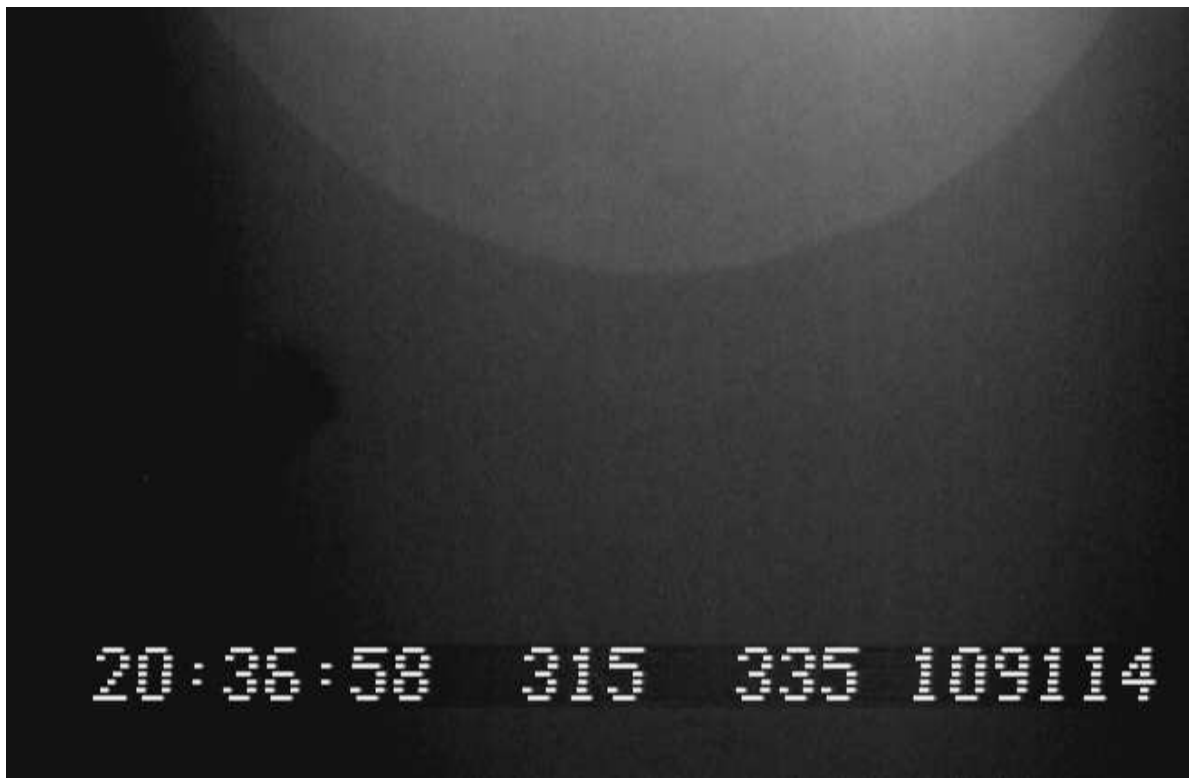


Figure 1 Iten's movie (GIF animation).

STEFANO SPOSETTI: Setup and Location:

Telescope SC Celestron 11

Videocam WAT-902H2 Ultimate

Time inserter KIWI-OSD

Software Virtualdub

Observatory E longitude 09:01:26.5

Observatory N latitude 46:13:53.2

Observatory height 260m

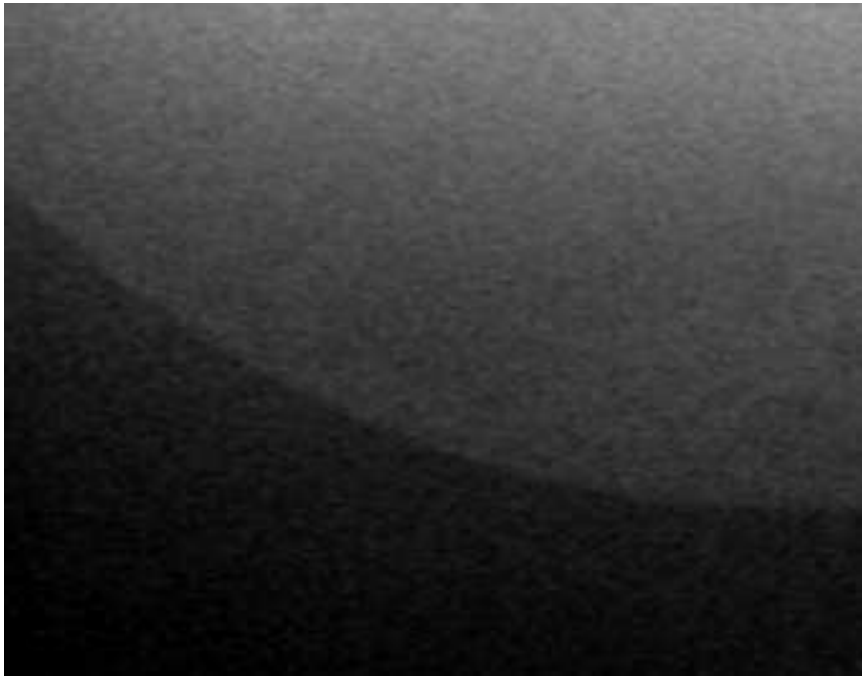


Figure 2 *Sposetti's movie (GIF animation).*

The distance between the two observatories is about 13 km. Time of the flash:
20:36:58.36 UTC +/- 0.02s.

Figure 3 show the image sequence extracted from Sposetti's movie.

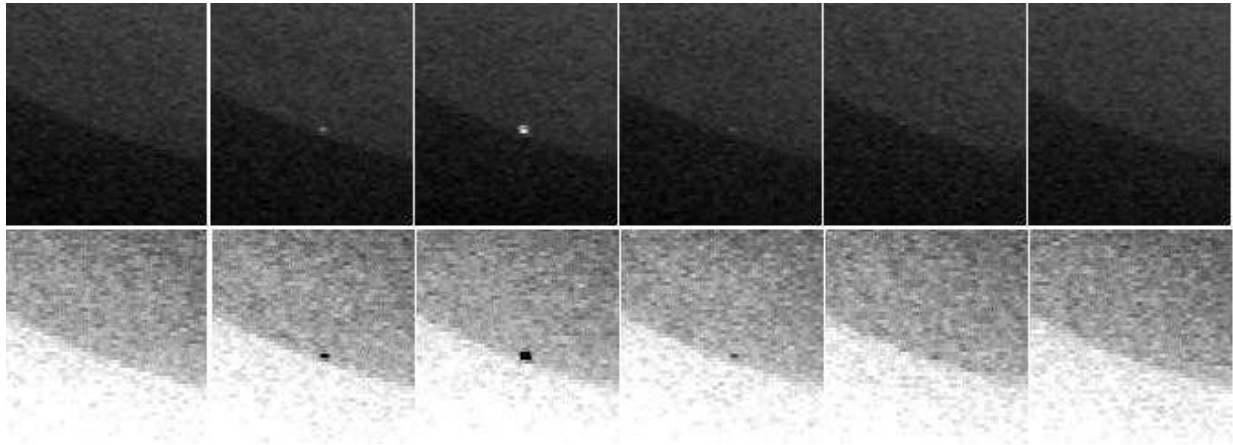


Figure 3 Image sequence extracted from Sposetti's movie

The two Light curves were obtained using the Tangra software (Fig. 4 in next page).

Probable lunar region was determined to longitude $86^{\circ} \pm 3^{\circ}$ W and latitude $16^{\circ} \pm 1^{\circ}$ (Craters region: Dalton, Vasco de Gama B, Einstein A). The map is shown in Fig. 5.

Results and Conclusion

In this abstract we report a probable impact on the Moon. The intensity of the flash is well above the noise level, the event covers several frames, and the final confirmation comes from the fact that it was detected by two independent distant observers.

We warmly thank Raffaello Lena (GLR GROUP) and Gerhard Dangl for the help during this pre-analysis phase.

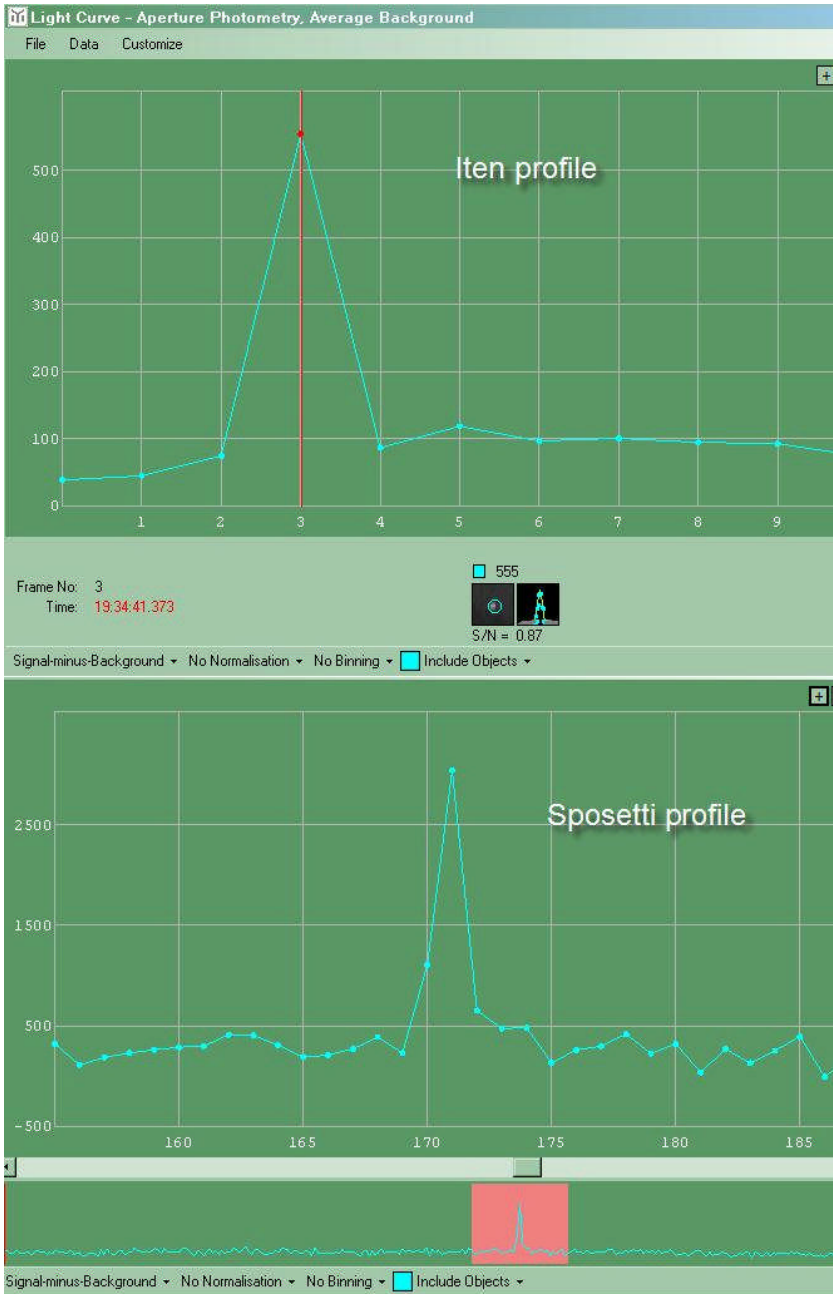


Figure 4 *The two Light curves*

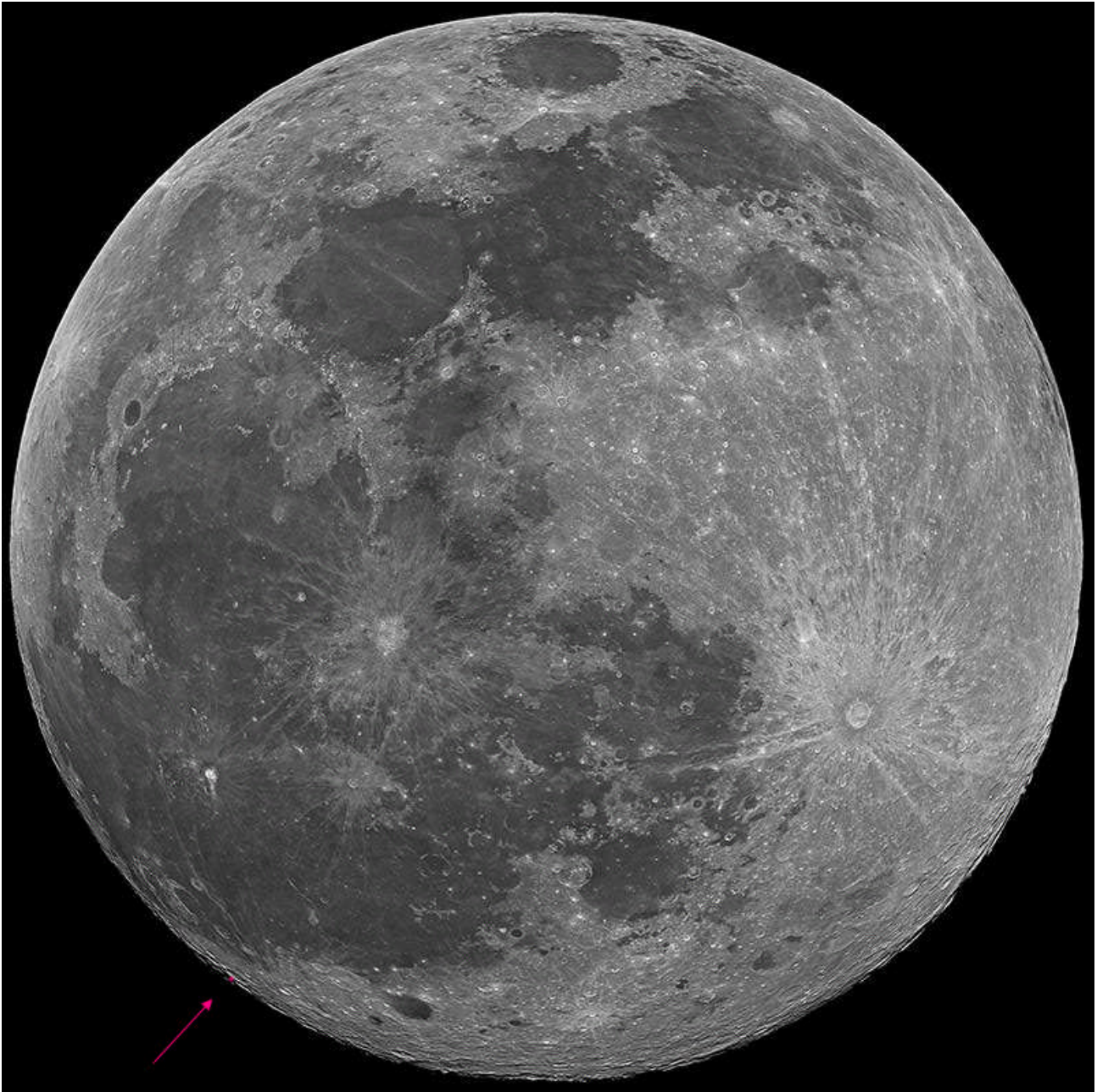


Figure 5 The probable impact zone.



A project about the crater detection using LRO imagery

By editorial board of Selenology Today

The Lunar Reconnaissance orbiter (LRO) is continuously taking new images. Hence, the next step should now consist of searching WAC or NAC images acquired before the event with images acquired after the reported event. At least in NAC images with their resolution of ~1 m or better, a crater should be detectable at the impact coordinates. Maybe it will take some time until the region is imaged again, but in the course of the ongoing mission, this may certainly be done. GLR group, one of the active groups involved in lunar meteoritic impact studies, will do further research including eventual future analysis.