



This set of flashcards is a study aid for your common lunar science targets based on recent iterations of the LTP with February flyby dates. More flashcards will be provided as additional targets come online.

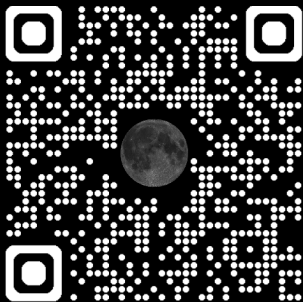
For more challenging targets, additional flashcards are included to represent a range of illumination conditions, reflecting cases where topography becomes washed out with a high-illumination visual, color is difficult to discern with an average-illumination visual, or targets are small and difficult to identify quickly regardless of the illumination condition of the visual provided.

Happy studies!
-Amber & Megan

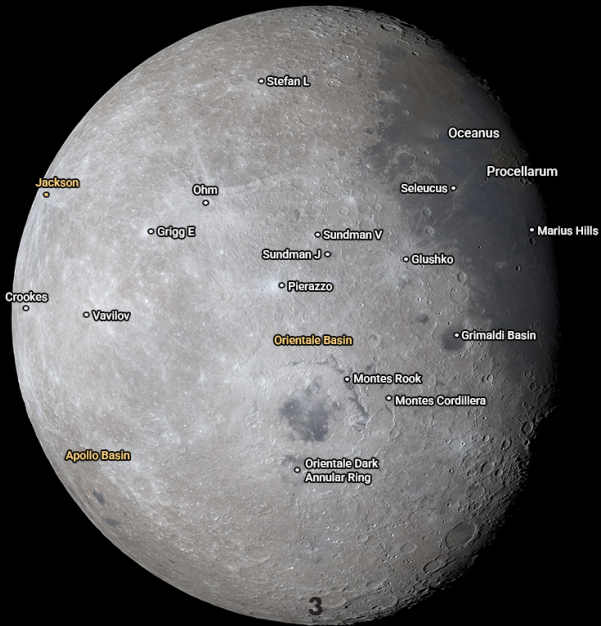


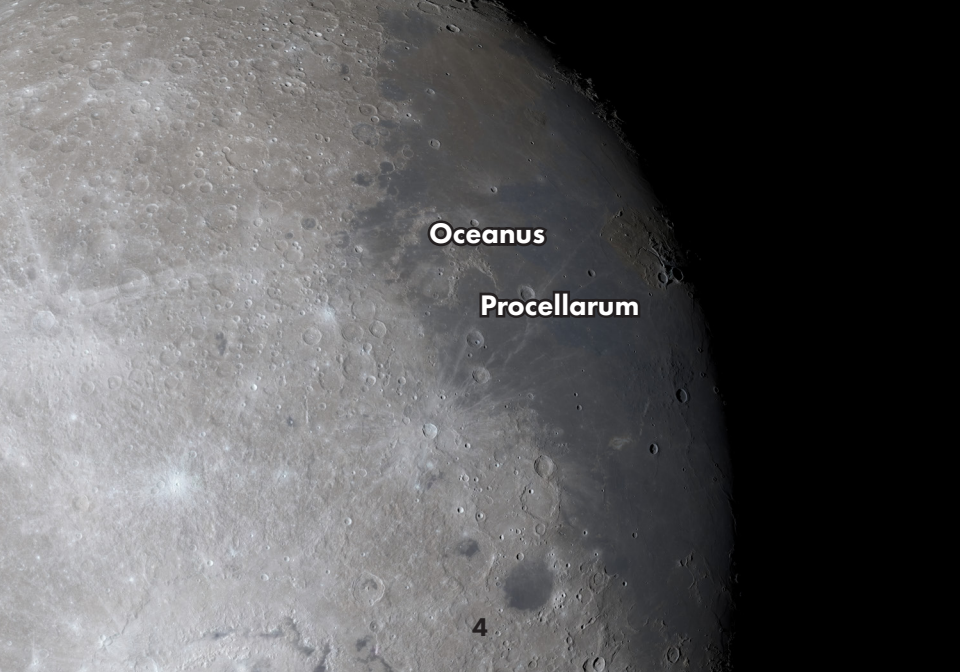
Your flashcards are also available digitally so that you can study on the go. When/if more targets are selected by the Artemis II Lunar Science Team, we will update both your physical and digital copies.

Please Scan the QR Code to be taken to Artemis ERA and scroll down to the Artemis II Lunar Surface Target Flashcards PDF.



APPROACHING SIDE

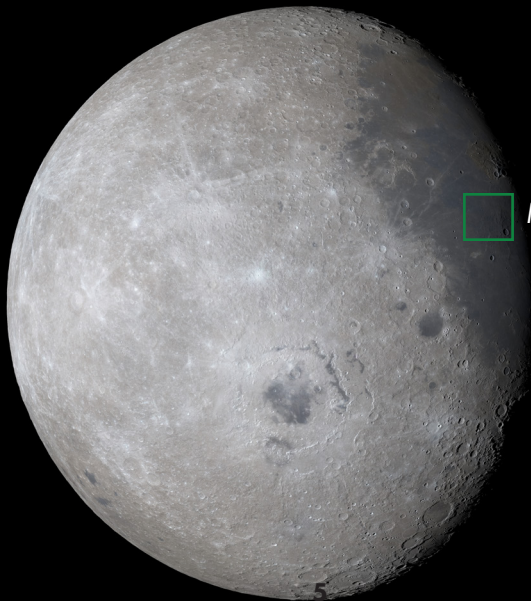




Oceanus

Procellarum

4



Marius Hills



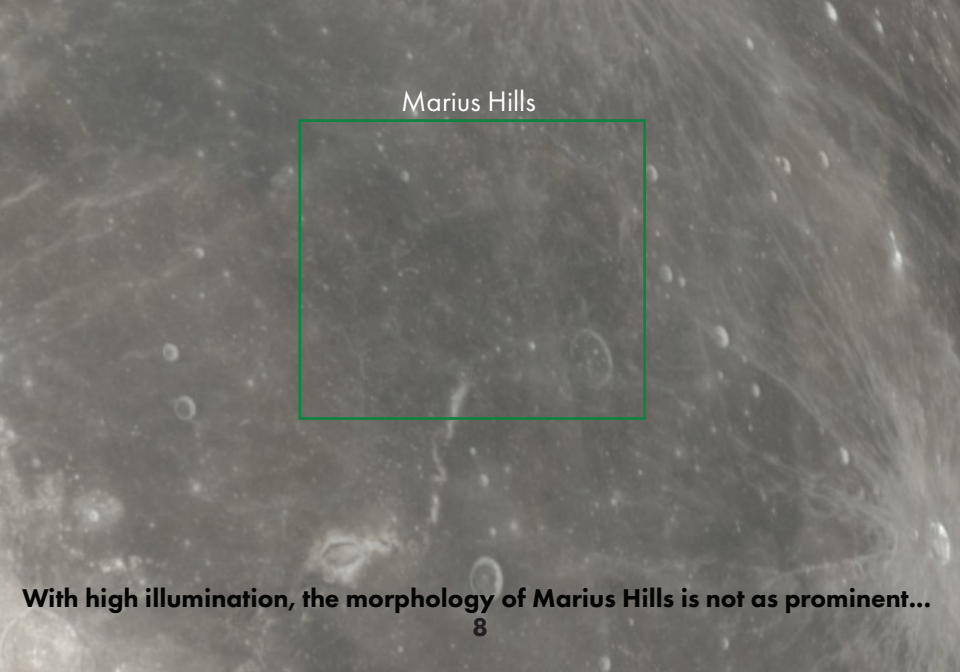
Aristarchus Plateau

Marius Hills

Orientale Basin

Marius Hills





Marius Hills

With high illumination, the morphology of Marius Hills is not as prominent...



Aristarchus Plateau

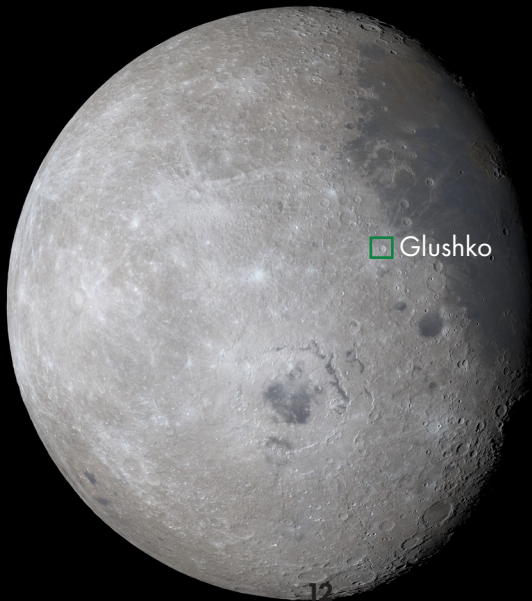
Seleucus





Aristarchus
Plateau

Seleucus




Glushko

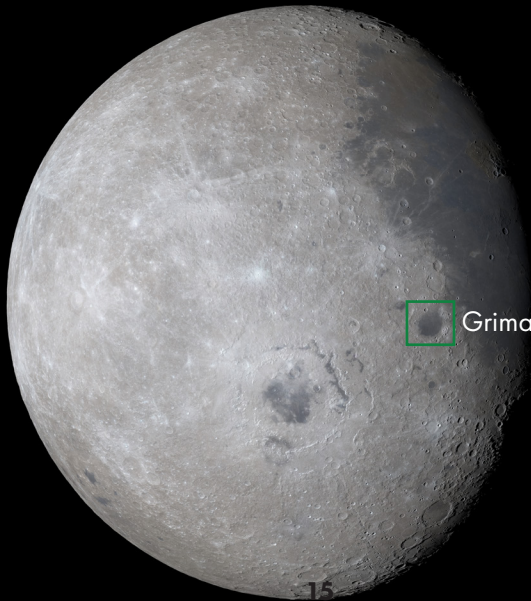
12



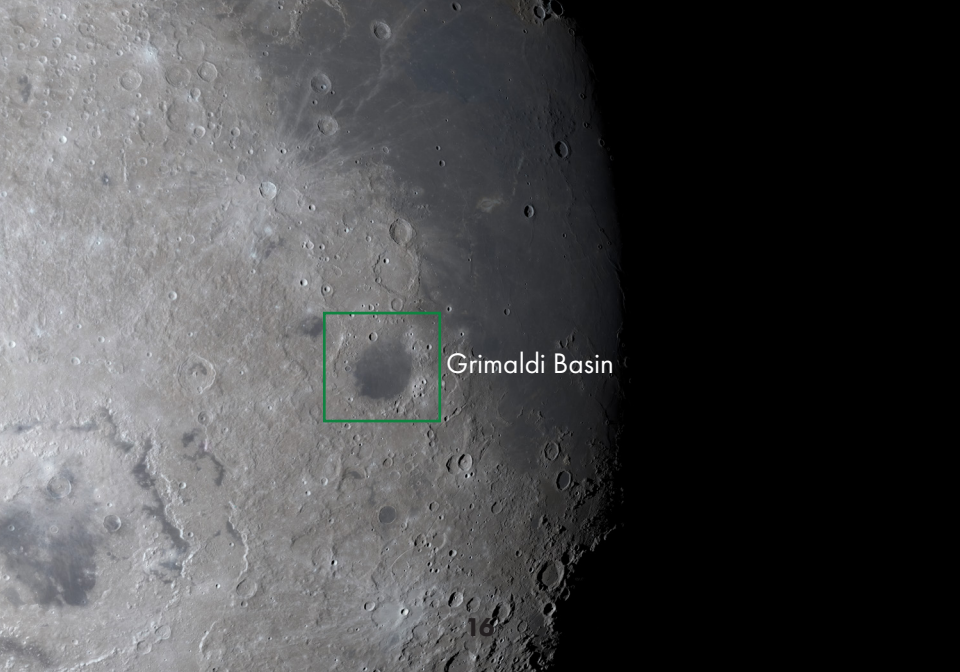
Glushko




Glushko



Grimaldi Basin



Grimaldi Basin



Grimaldi Basin



□ Byrgius A



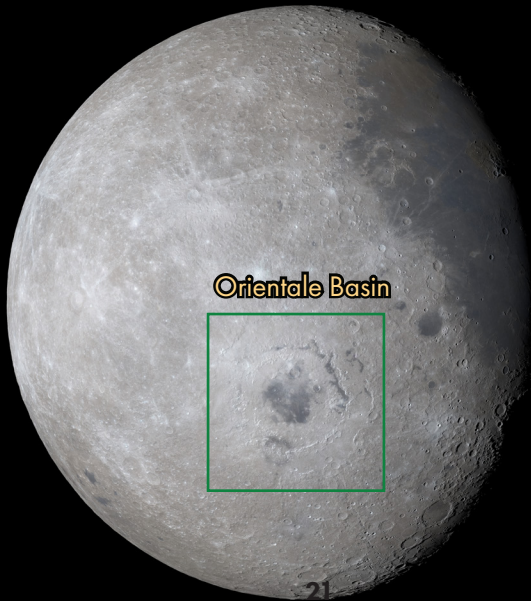
Oriente Basin

Byrgius A




Byrgius A

20



Oriente Basin

Orientele Basin



Oriente Basin

Montes Cordillera

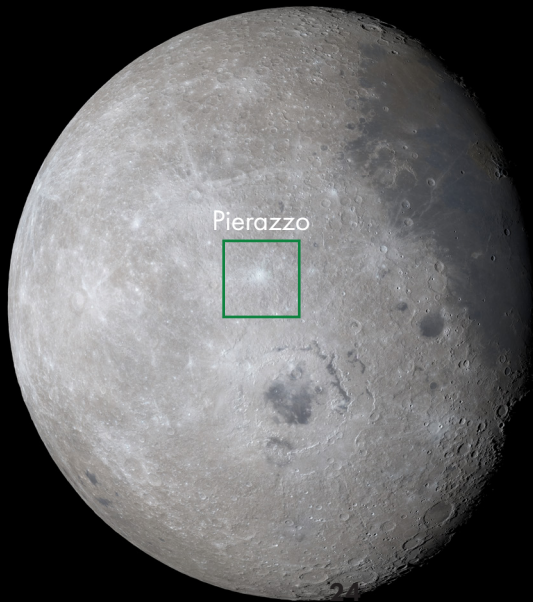
Montes Rook

Montes Rook

Dark Annular Ring

23





Pierazzo

Ohm

Pierazzo

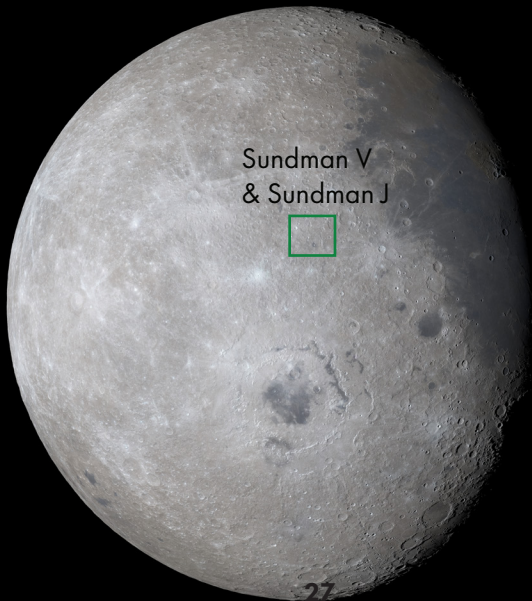


Oriente Basin

25




Pierazzo



Sundman V
& Sundman J



27

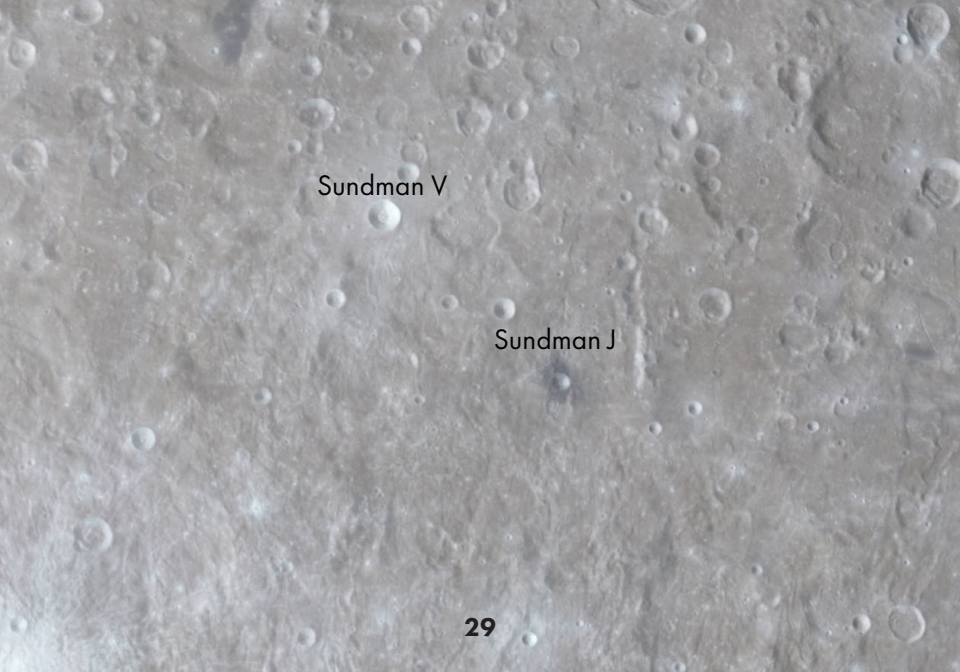


Sundman V

Sundman J

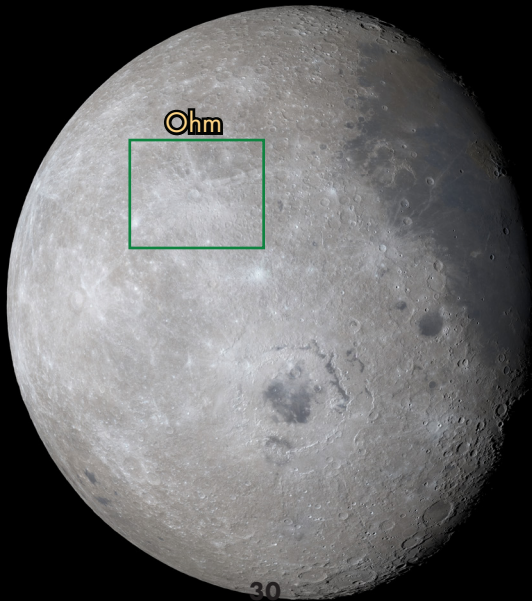
Orientale Basin

28



Sundman V

Sundman J

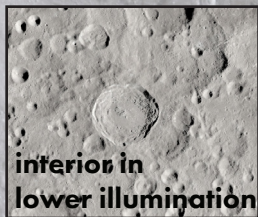


Ohm

30



Ohm

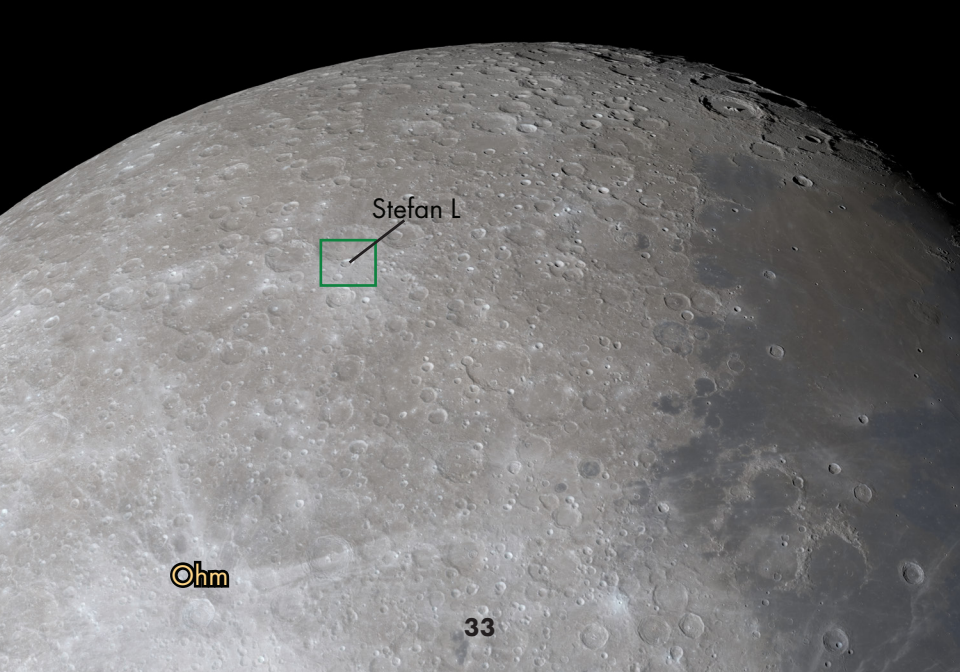


Stefan L



32





Stefan L



Ohm

33



Stefan L

34



Grigg E



35

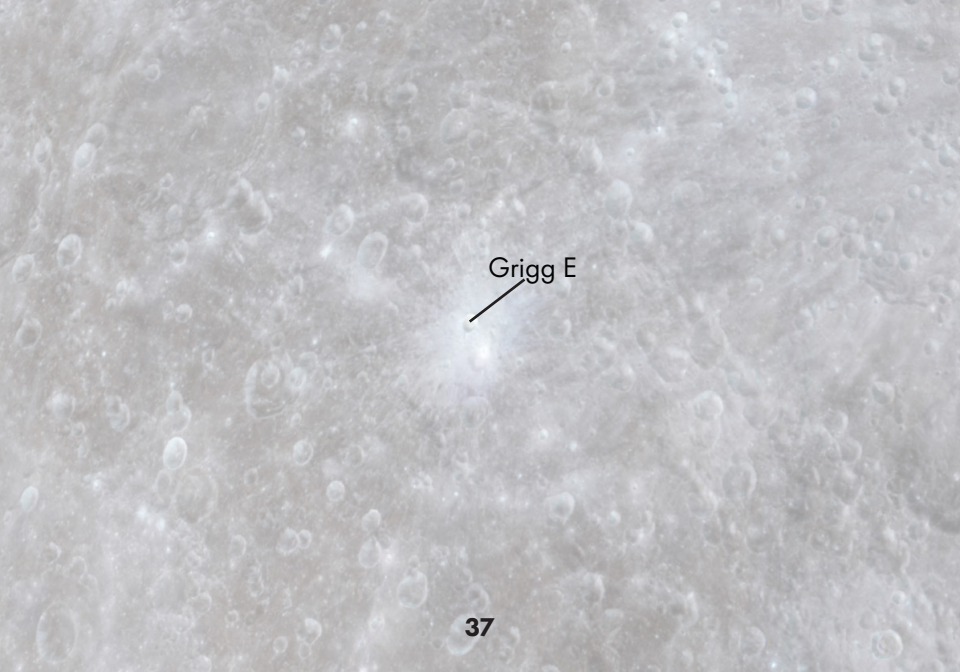
Jackson

Ohm

Grigg E

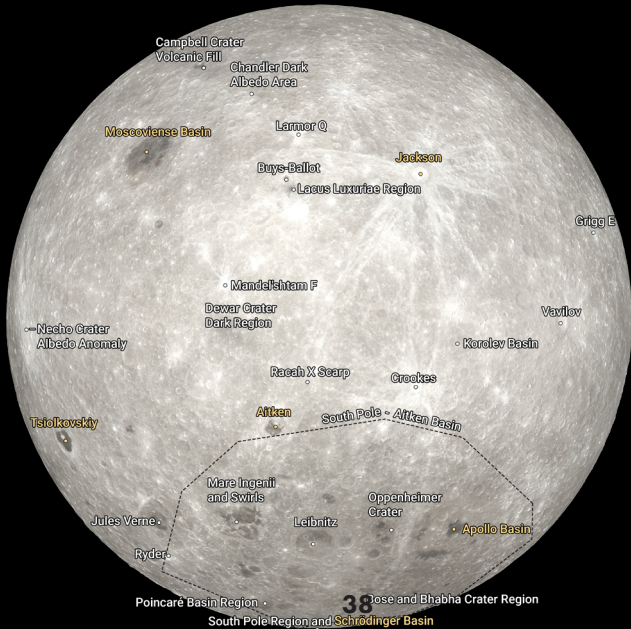


36



Grigg E

37



FAR SIDE

Campbell Crater
Volcanic Fill

Chandler Dark
Albedo Area

Moscoviense Basin

Larmer Q

Buys-Ballot

Jackson

Lacus Luxuriae Region

Grigg E

Mandel'shtam F

Dewar Crater
Dark Region

Vavilov

Korolev Basin

Necho Crater
Albedo Anomaly

Racah X Scarp

Crookes

Tsiolkovskiy

Aitken

South Pole - Aitken Basin

Mare Ingenii
and Swirls

Oppenheimer
Crater

Jules Verne

Leibnitz

Apollo Basin

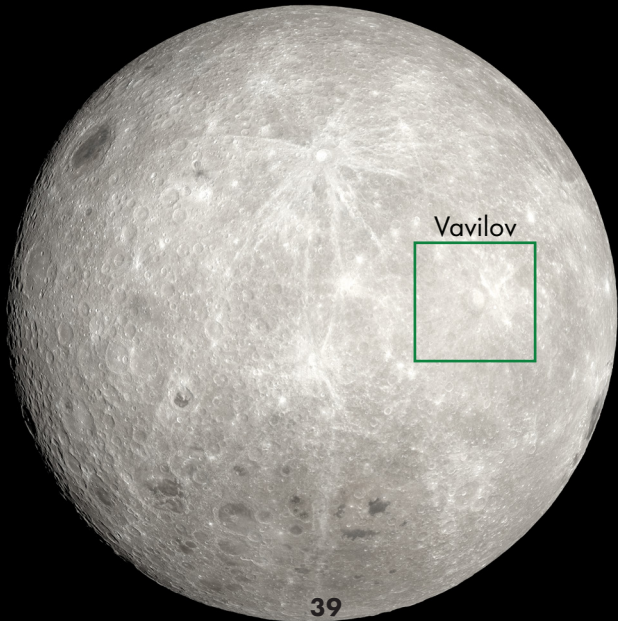
Ryder

Poincaré Basin Region

38

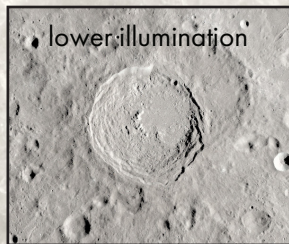
Jose and Bhabha Crater Region

South Pole Region and Schrödinger Basin

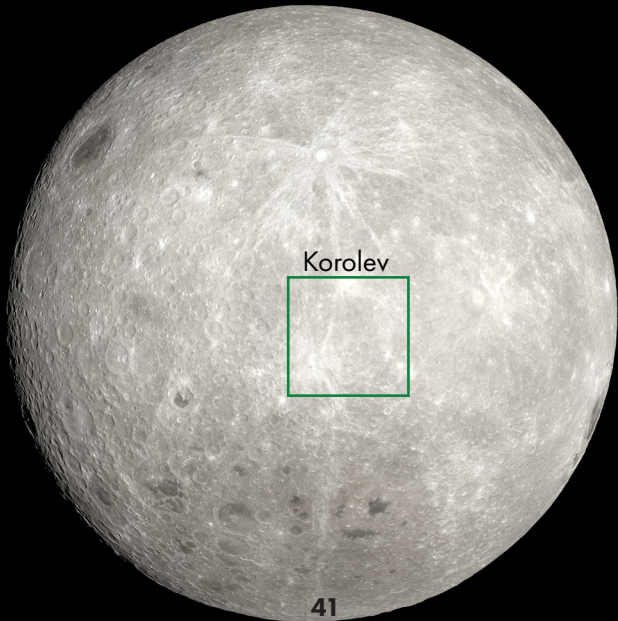


Vavilov

Vavilov



40

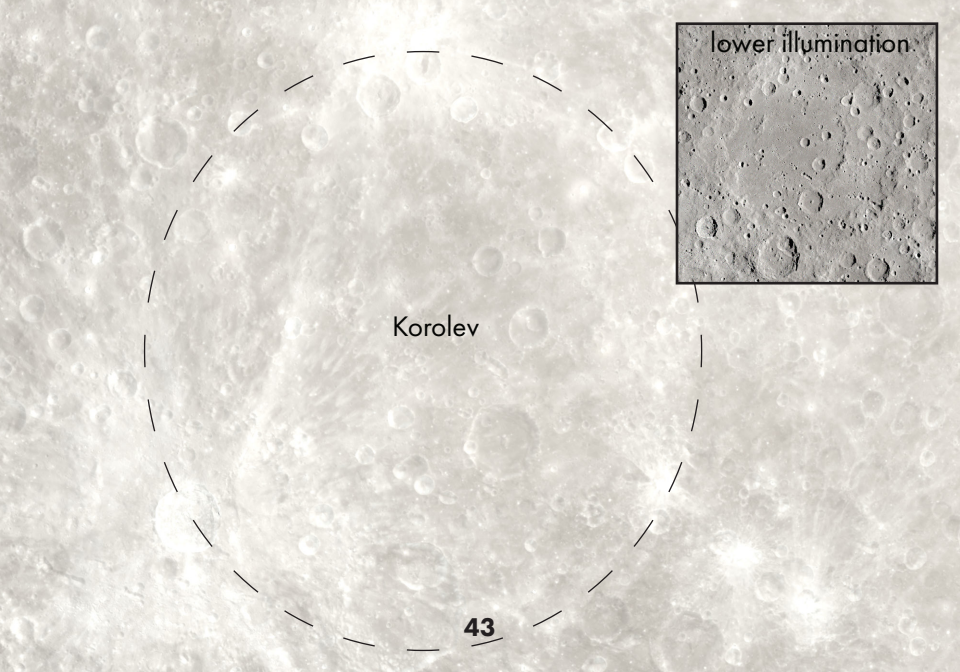


Korolev

41

lower illumination

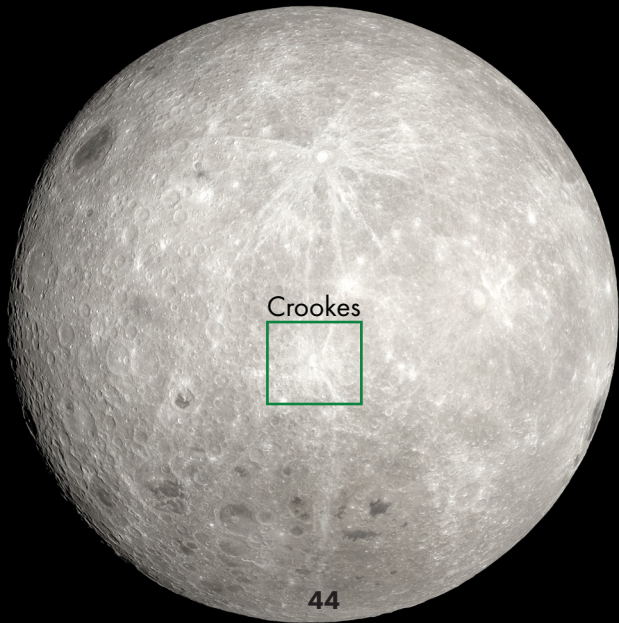
Korolev



lower illumination

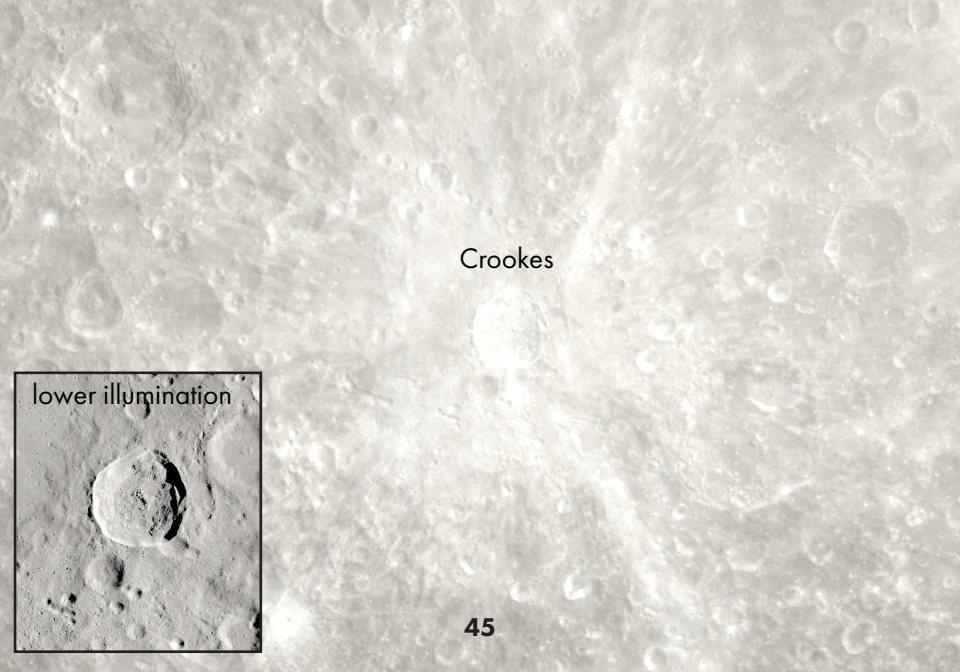
Korolev

43



Crookes

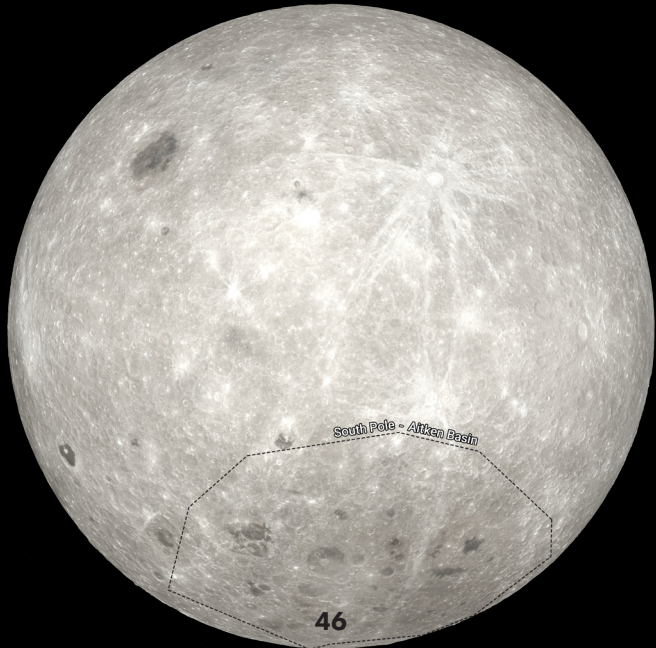
44



Crookes


lower illumination

45



South Pole - Aitken Basin

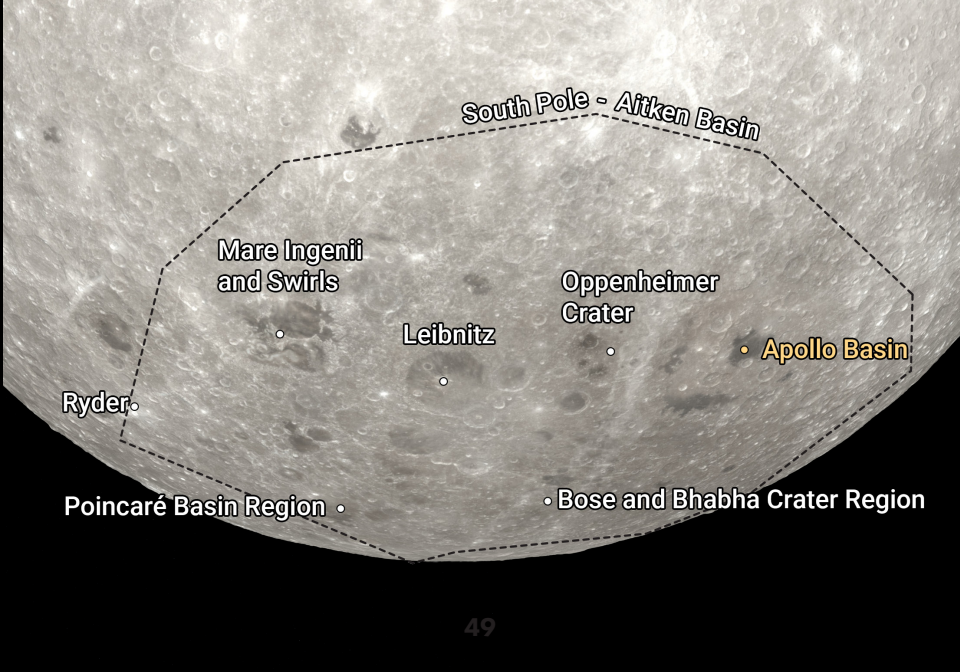
46

A high-resolution, grayscale photograph of the Moon's surface. The image shows a vast, cratered landscape. In the center, a large, dark, irregularly shaped depression is visible, which is the South Pole-Aitken Basin. The surrounding terrain is covered in numerous smaller craters of various sizes, some with distinct rims and shadows. The lighting creates a sense of depth and texture across the lunar surface.

South Pole-Aitken Basin



South Pole - Aitken Basin



South Pole - Aitken Basin

Mare Ingenii
and Swirls

Leibnitz

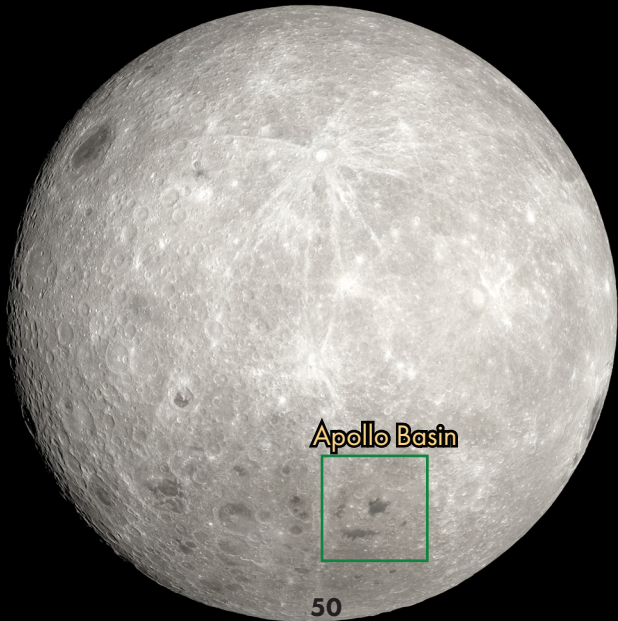
Oppenheimer
Crater

• Apollo Basin

Ryder •

Poincaré Basin Region •

• Bose and Bhabha Crater Region



Apollo Basin

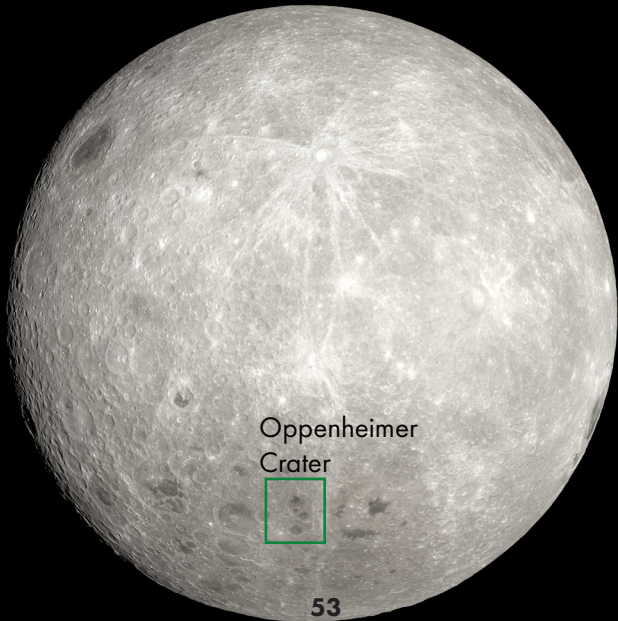
50



Apollo Basin




Apollo Basin

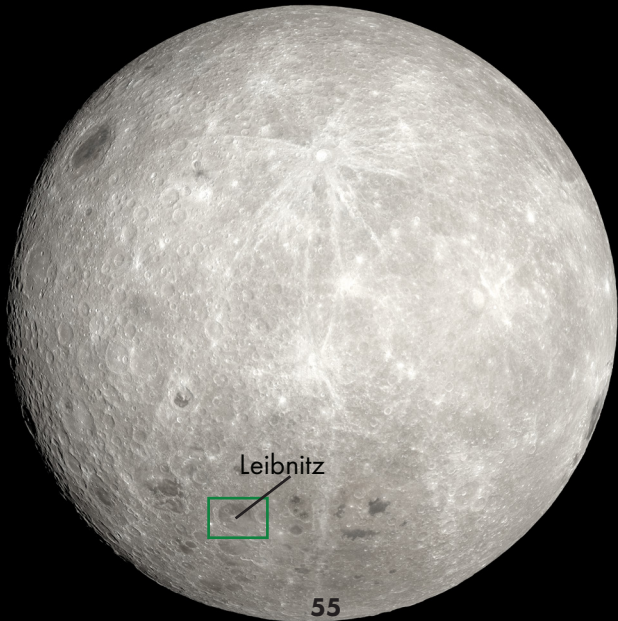


Oppenheimer
Crater

53

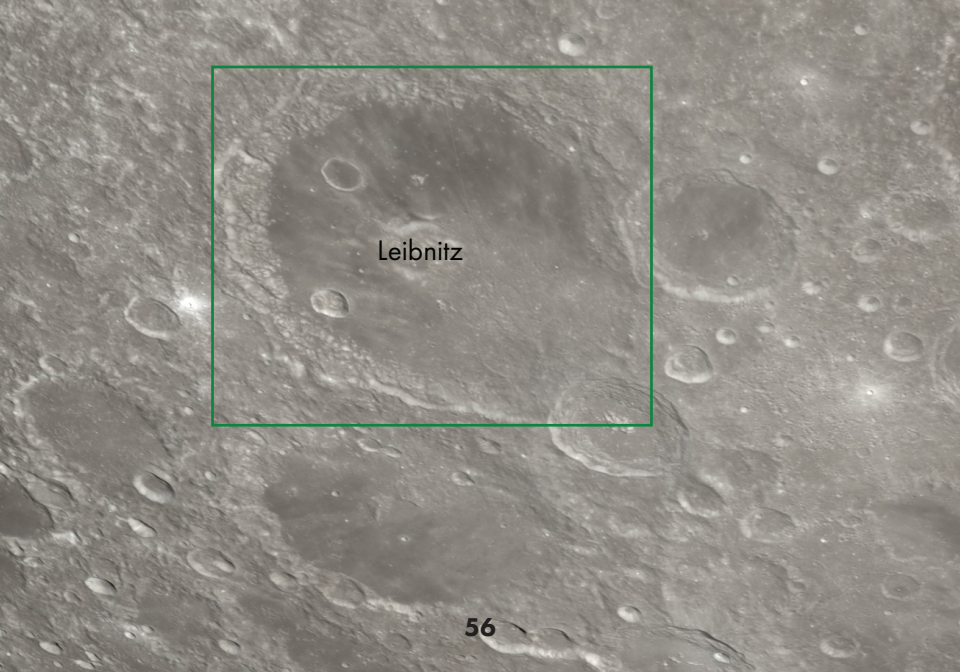


Oppenheimer Crater



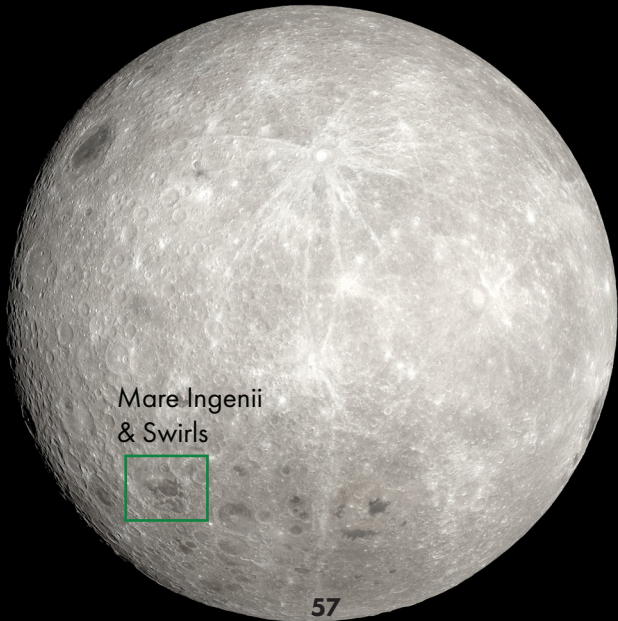
Leibnitz

55

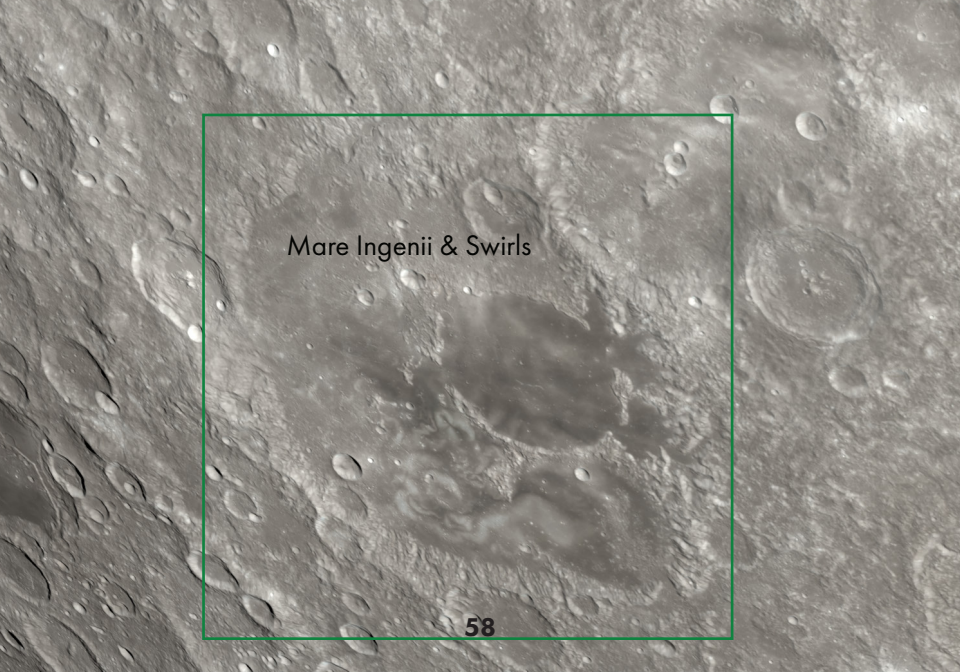


Leibnitz

56

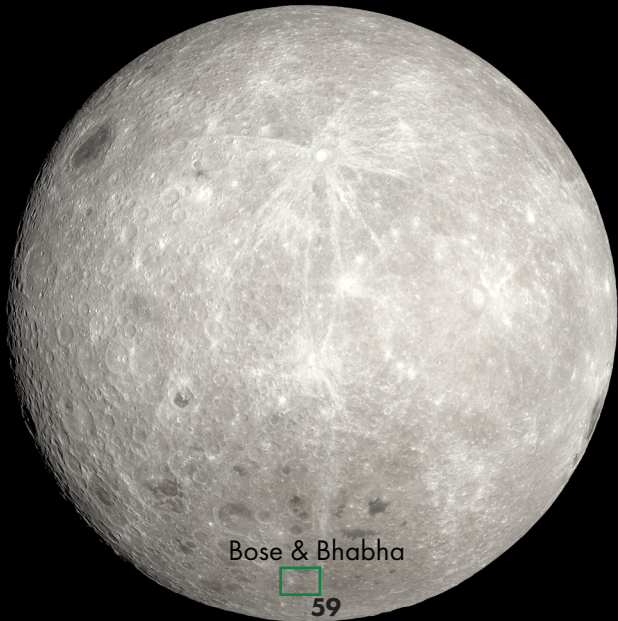


Mare Ingenii
& Swirls



Mare Ingenii & Swirls

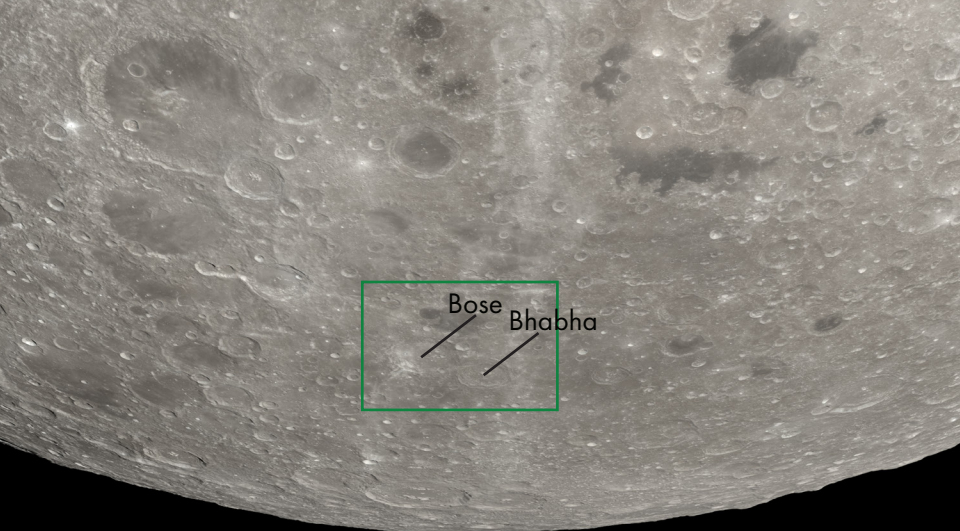
58



Bose & Bhabha

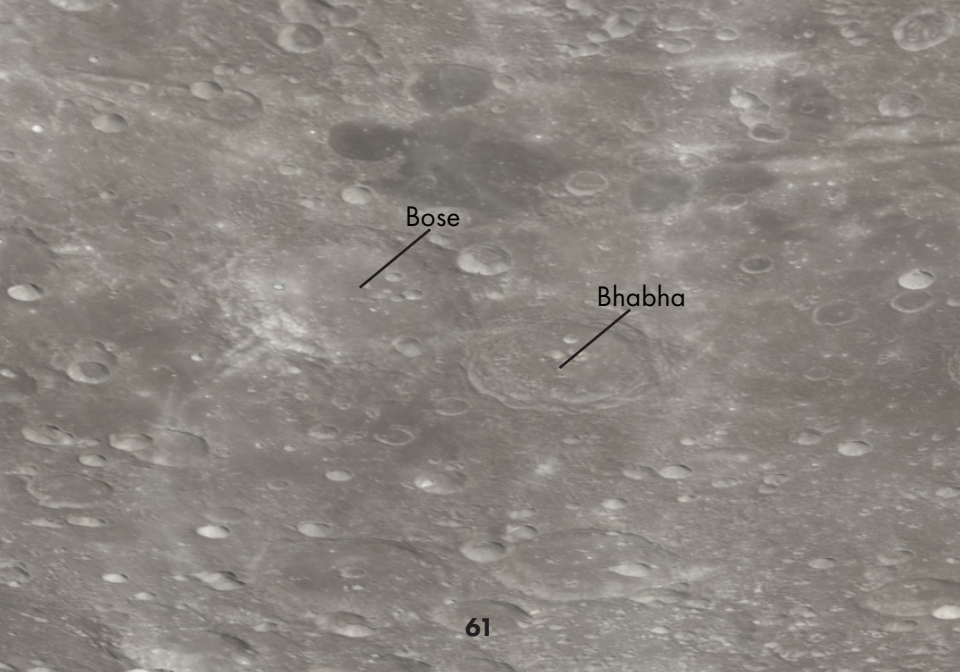


59



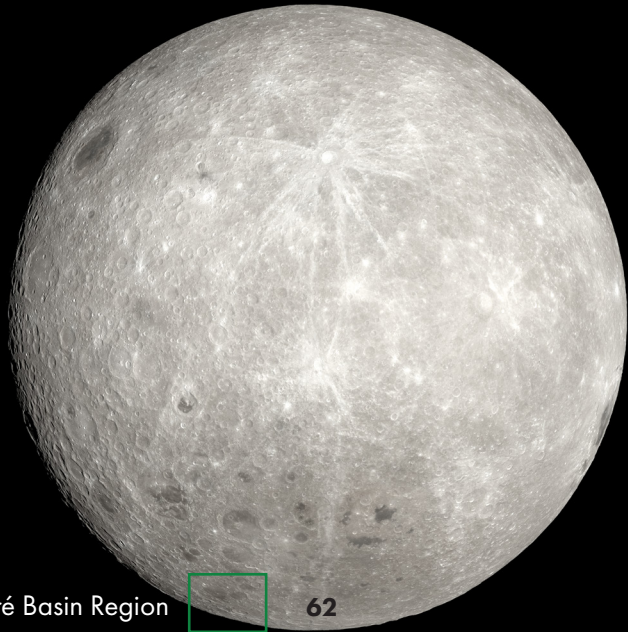
Bose

Bhabha



Bose

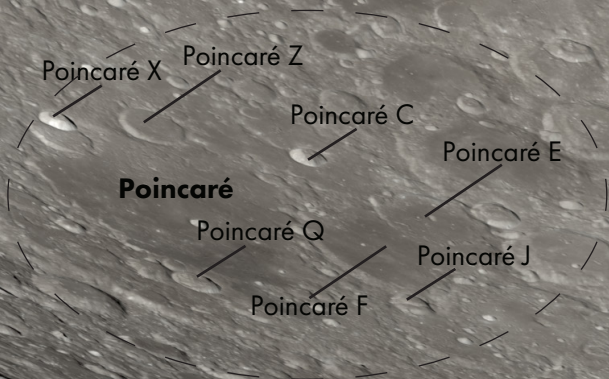
Bhabha



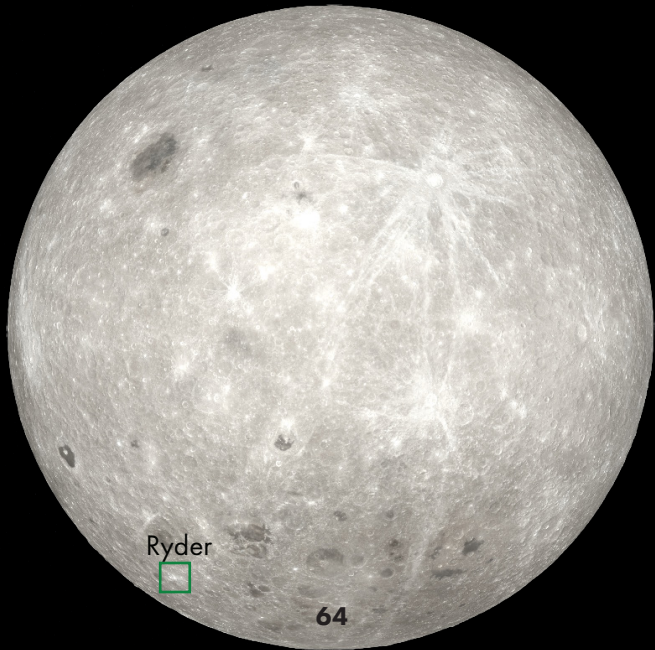
Poincaré Basin Region

62

Poincaré Basin Region



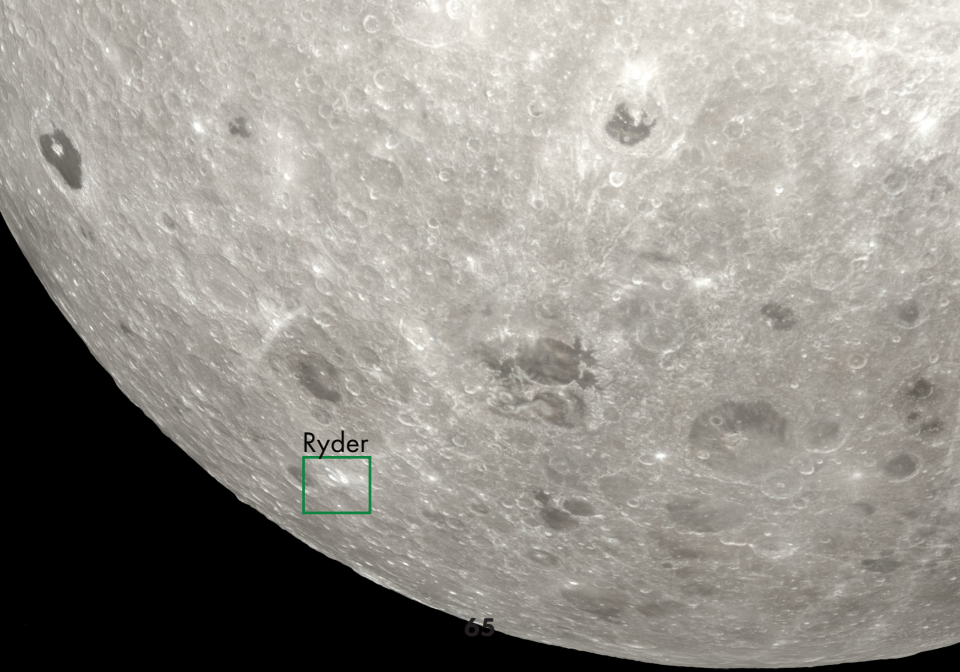
***You do not have to memorize all of these craters. This visual is just to show that there are multiple craters within the target boundary :)



Ryder

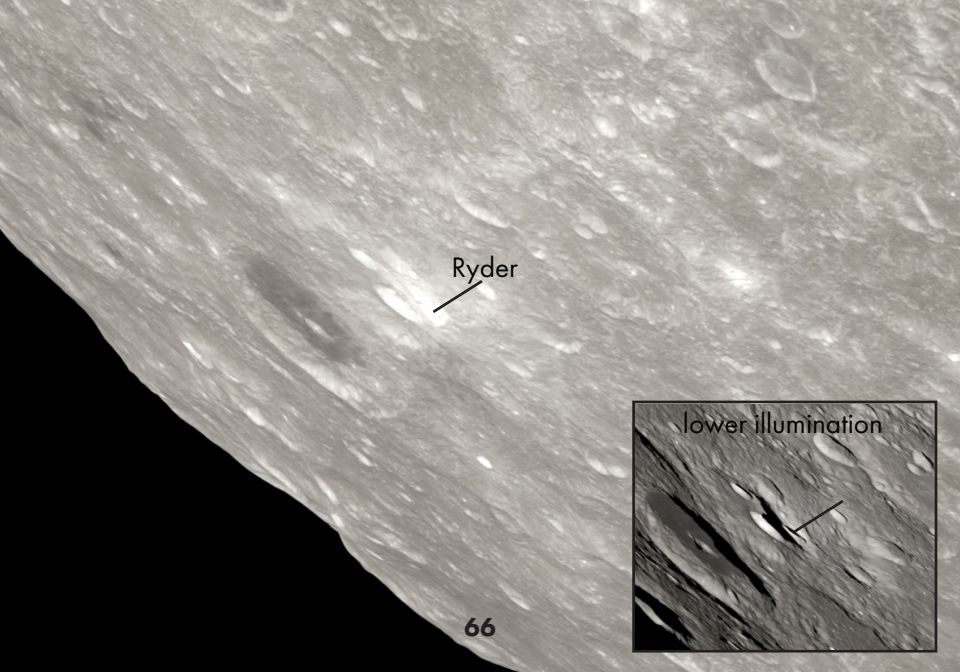


64

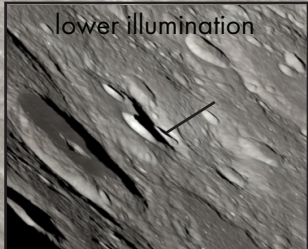


Ryder





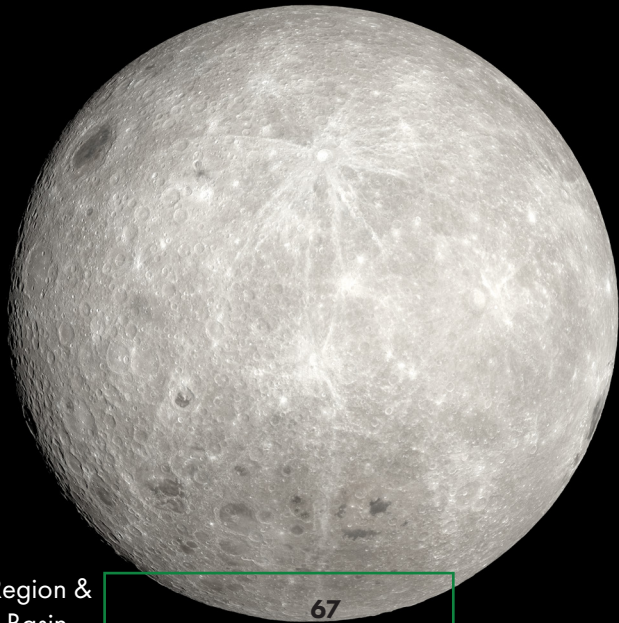
Ryder



lower illumination




66



South Pole Region &
Schrödinger Basin

67

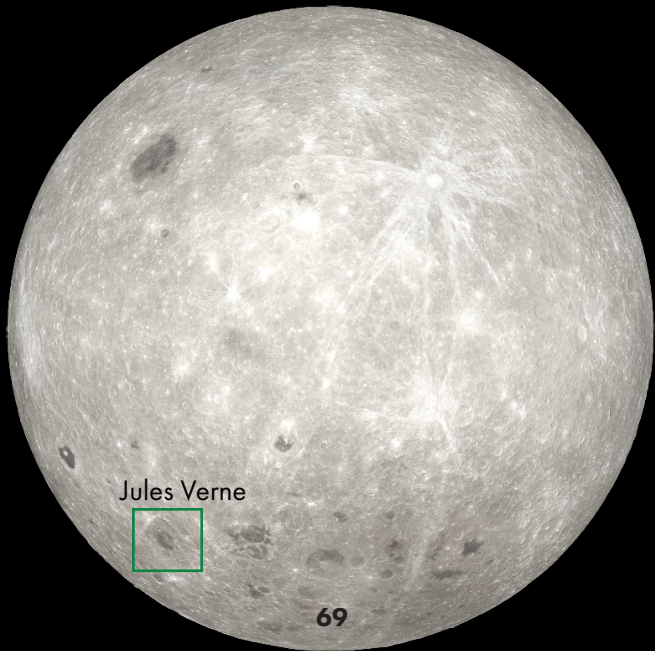
A detailed view of the Moon's surface, showing a dense field of craters of various sizes. The surface is grey and textured, with several large, dark, irregularly shaped basins. The lighting creates shadows that emphasize the depth of the craters and the ruggedness of the terrain. Labels in orange and white text identify specific features.

Tsiolkovskiy

Aitken

Apollo
Basin

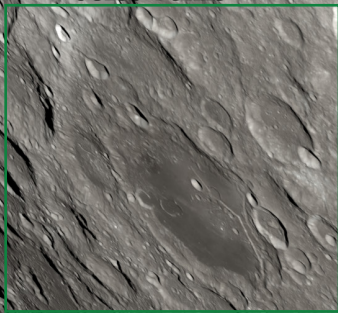
Schrödinger Basin horizon



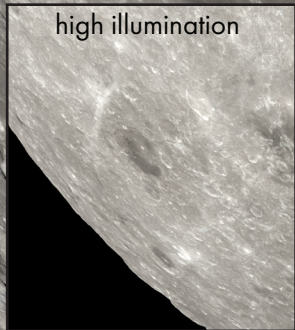
Jules Verne

69

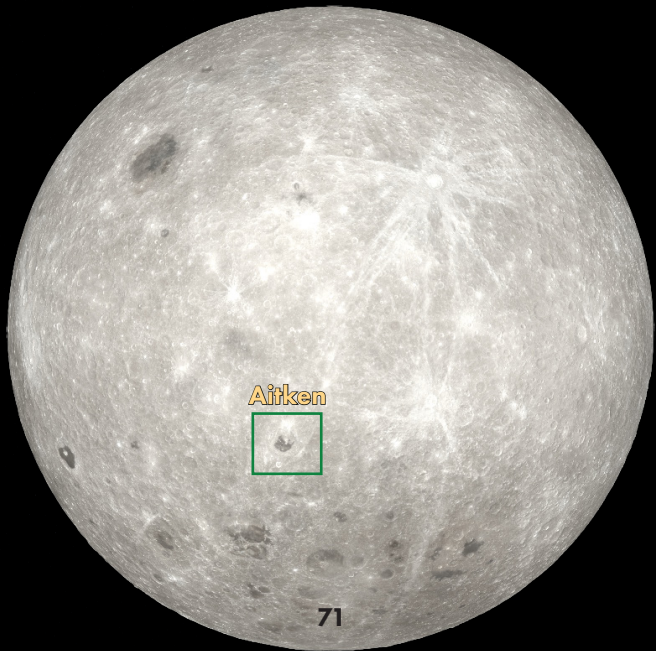
Jules Verne



high illumination



70



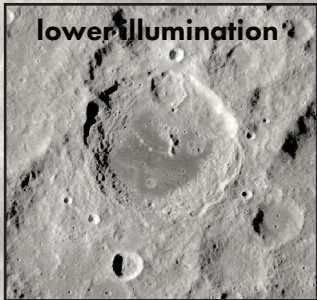
Aitken

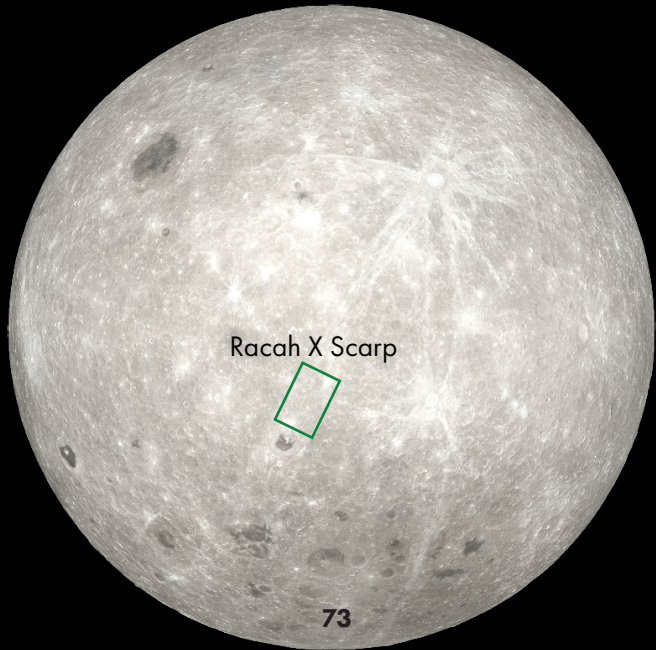
71

Aitken

72

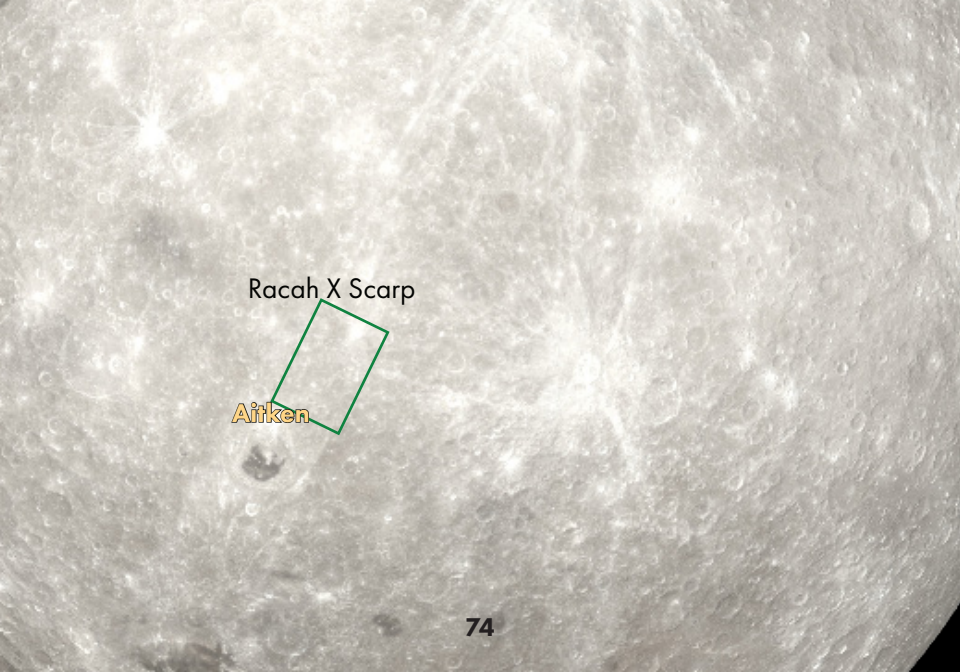
lower illumination





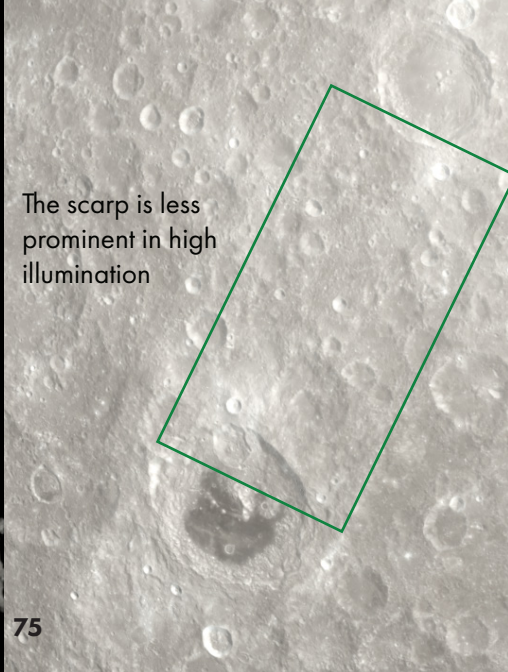
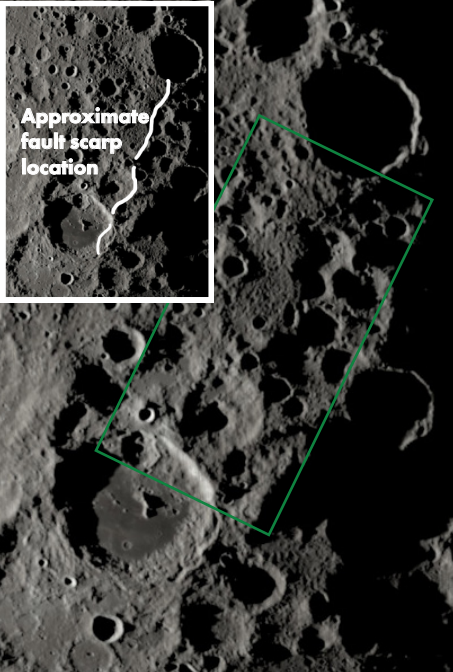
Racah X Scarp

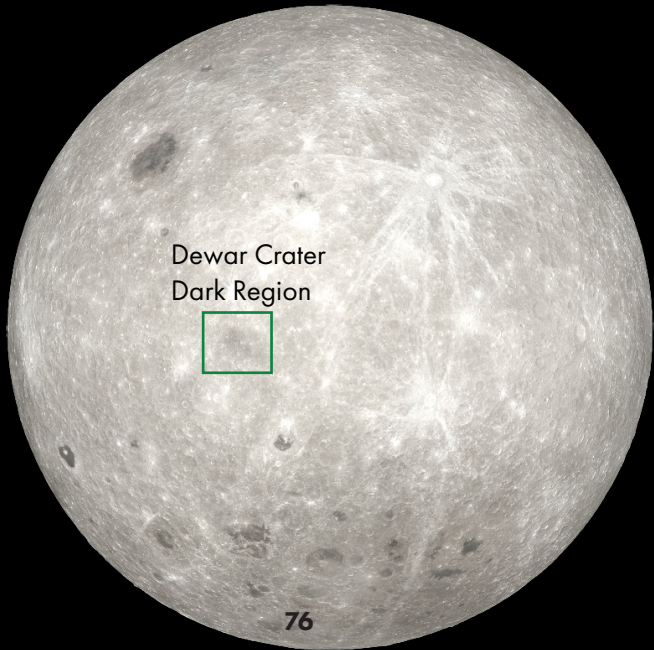
73



Racah X Scarp

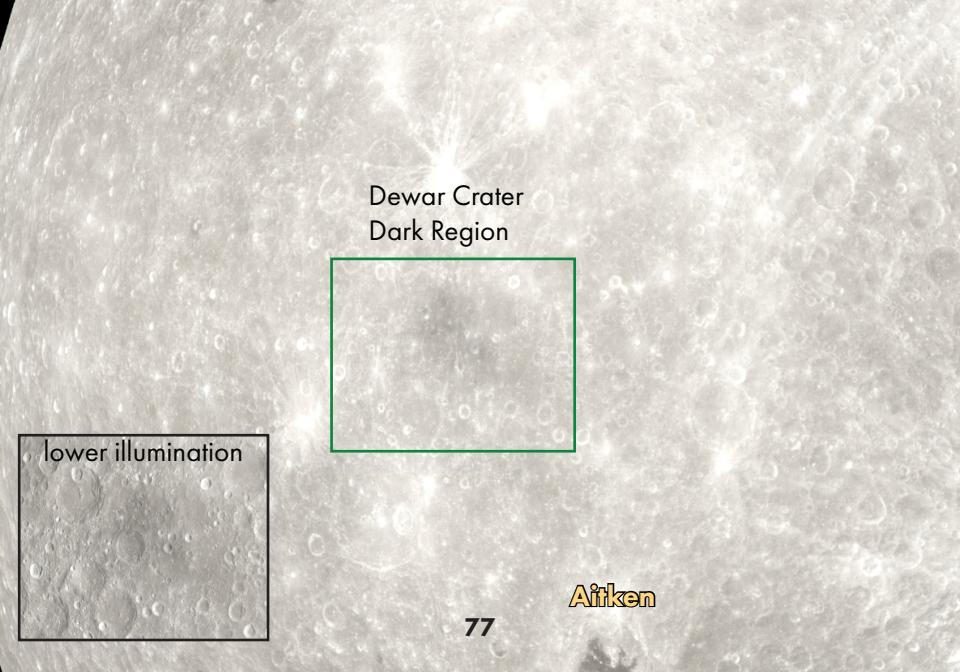
Aitken





Dewar Crater
Dark Region

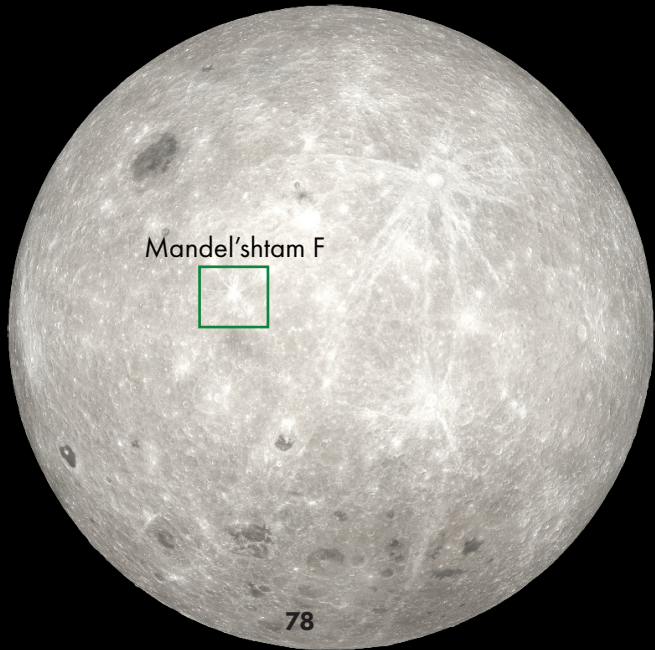




Dewar Crater
Dark Region

lower illumination

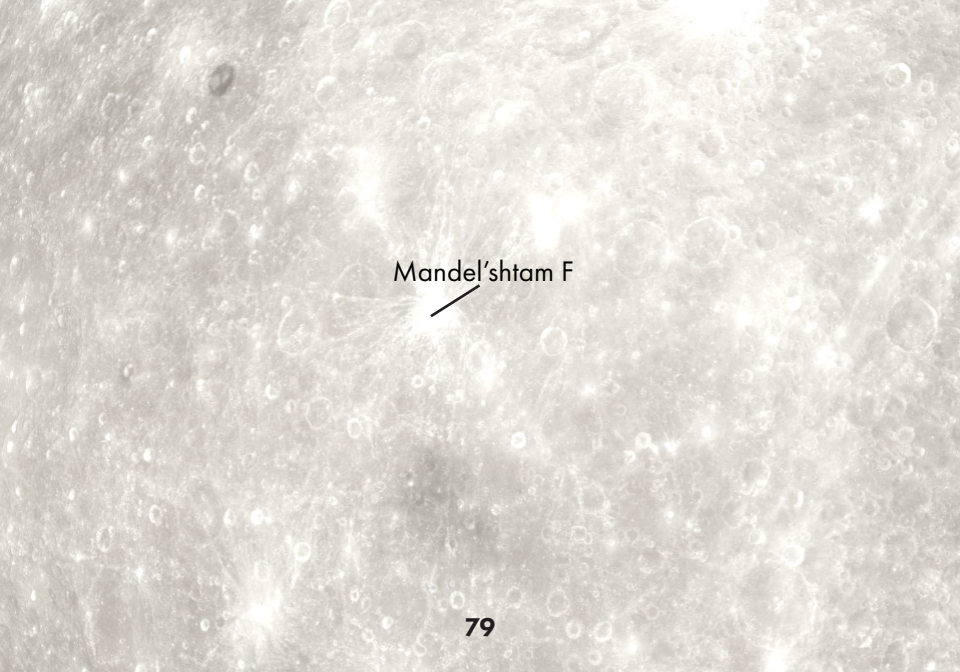
Aitken



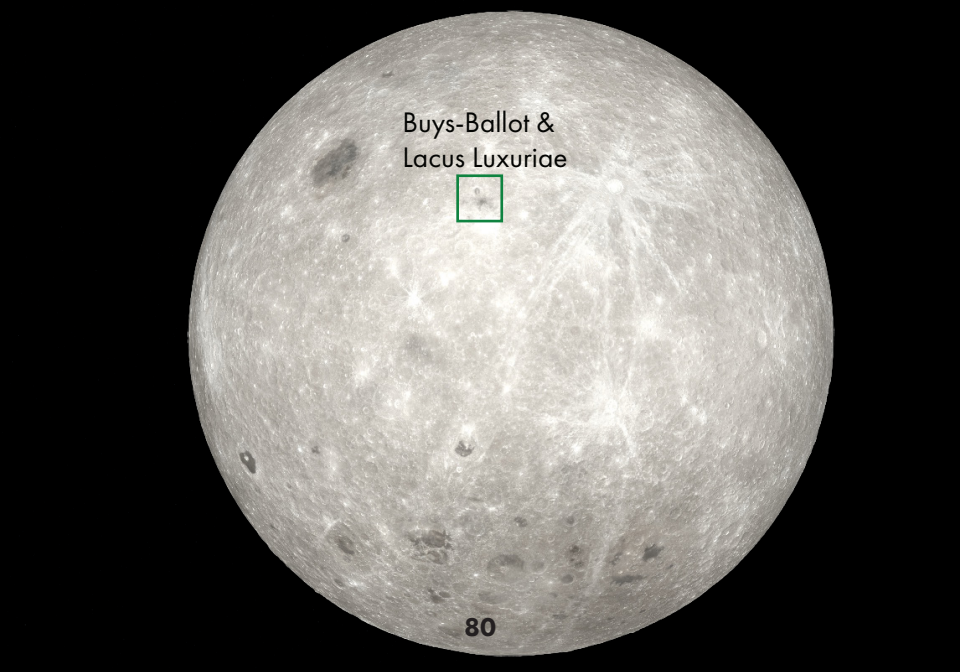
Mandel'shtam F



78

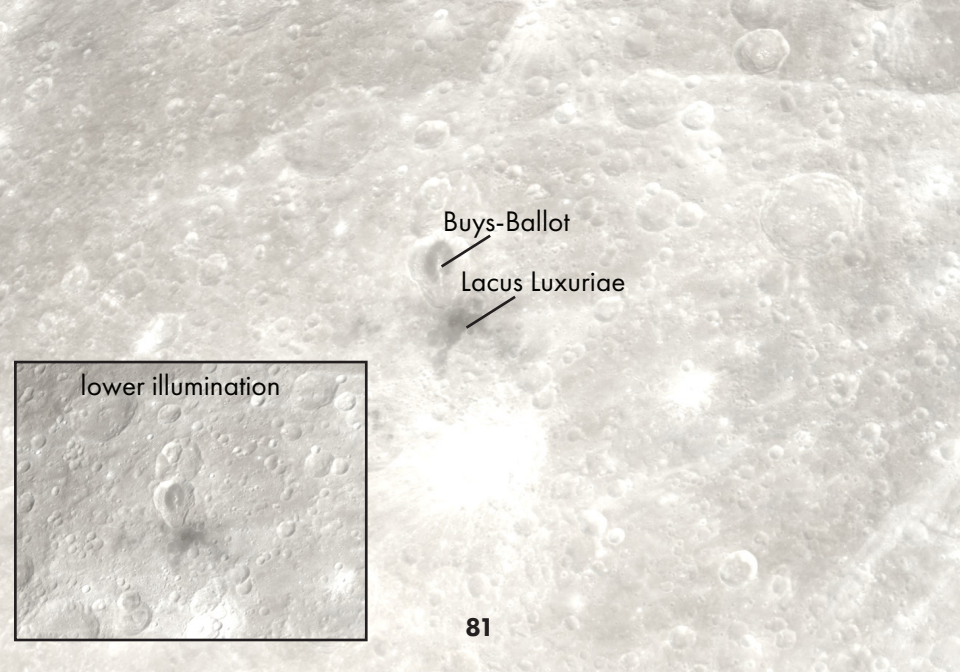


Mandel'shtam F



Buys-Ballot &
Lacus Luxuriae

80



Buys-Ballot

Lacus Luxuriae

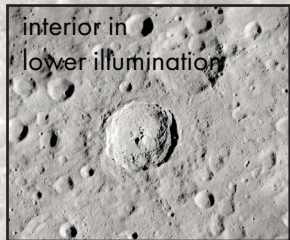
lower illumination

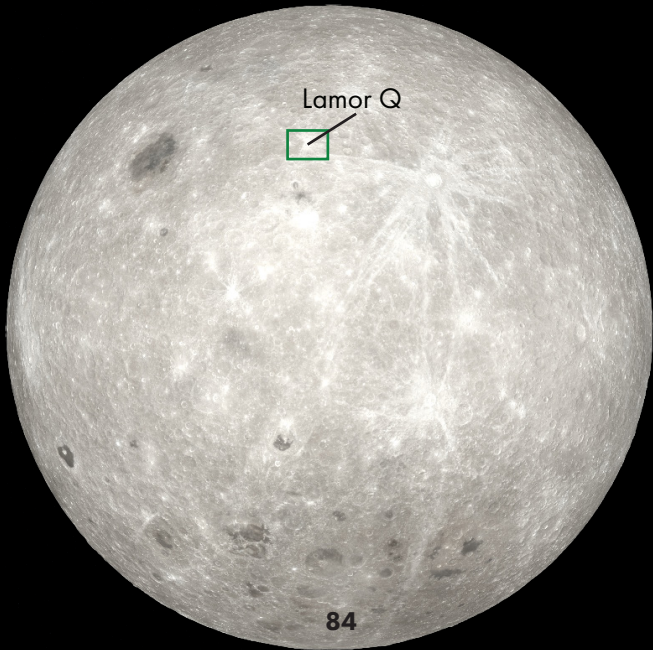
A full moon is shown against a black background. The moon's surface is covered in numerous craters of various sizes. A green rectangular box highlights a specific area in the upper right quadrant of the moon. Above this box, the word "Jackson" is written in a yellow, stylized font. At the bottom center of the moon, the number "82" is displayed in a white, sans-serif font.

Jackson

82

Jackson

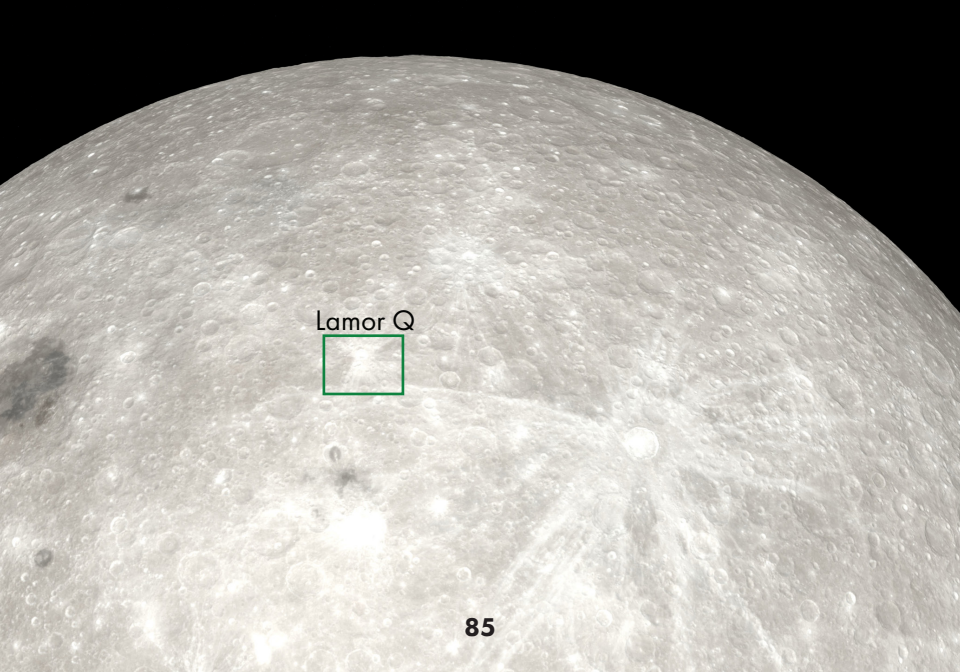




Lamor Q



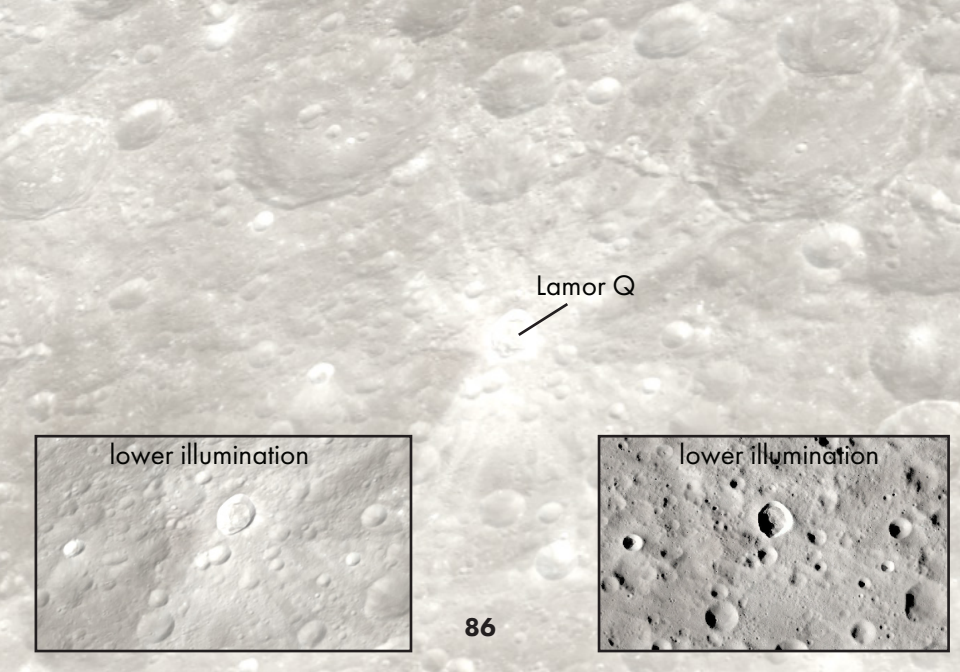
84



Lamor Q

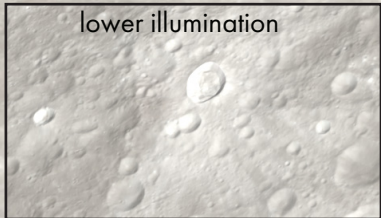


85

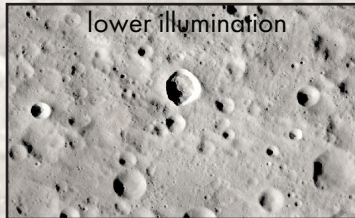


Lamor Q

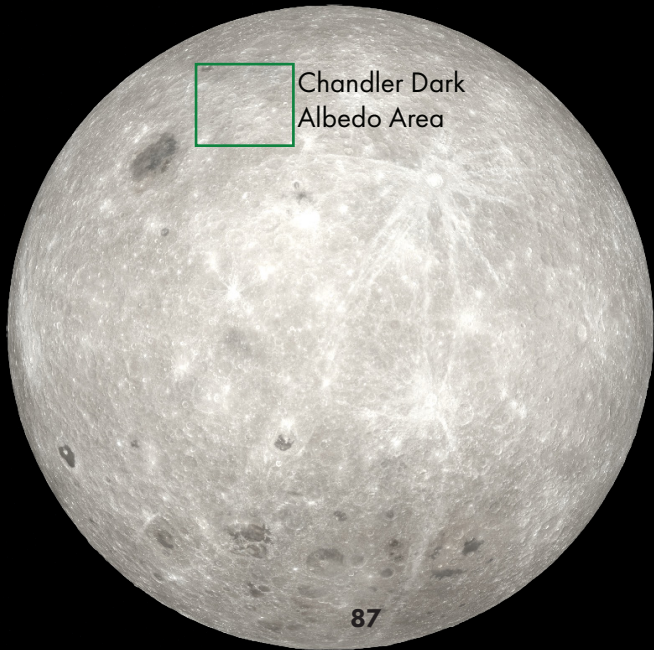
lower illumination



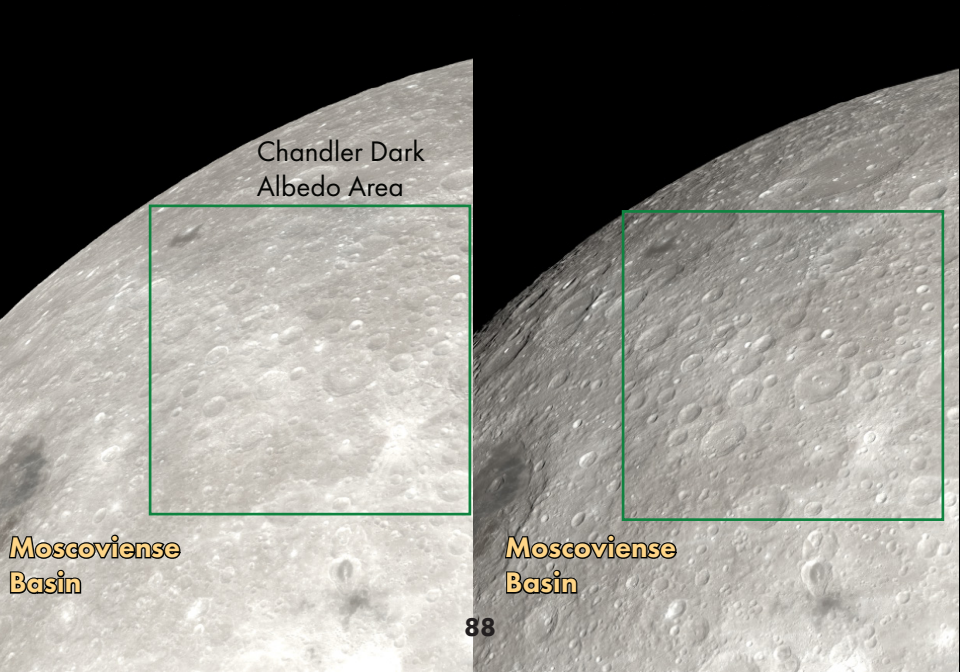
lower illumination



86



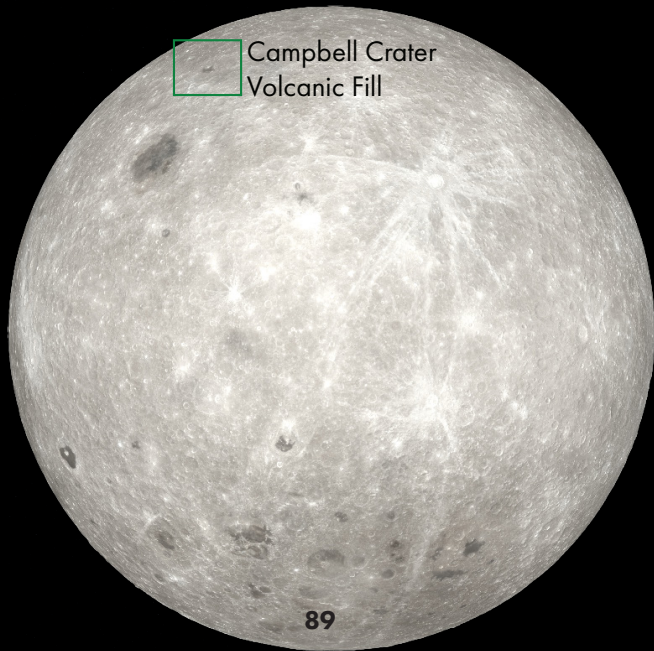
Chandler Dark
Albedo Area



Chandler Dark
Albedo Area

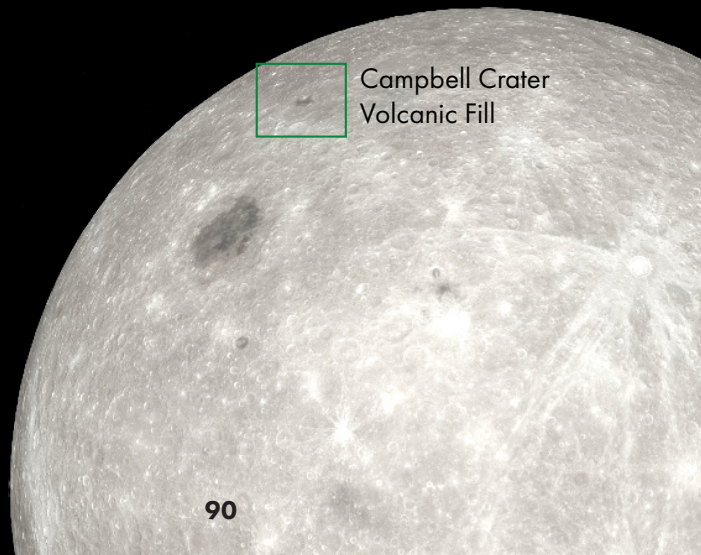
**Moscoviense
Basin**

**Moscoviense
Basin**



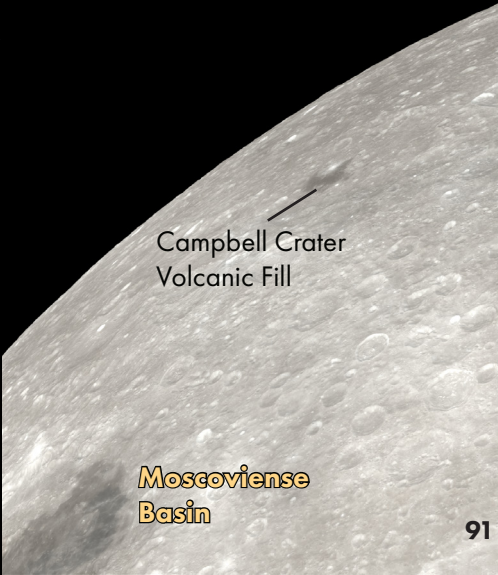
Campbell Crater
Volcanic Fill

89



Campbell Crater
Volcanic Fill

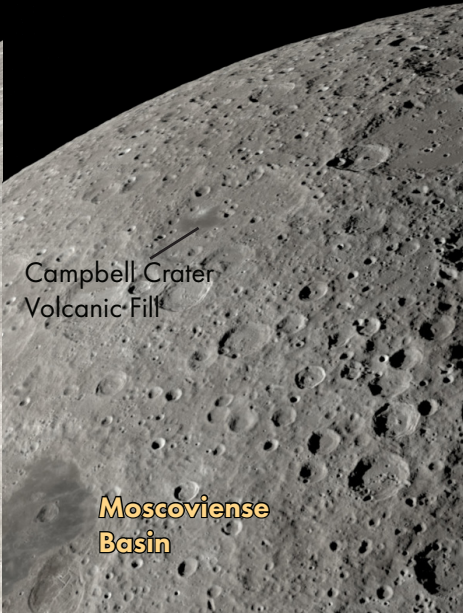
90



Campbell Crater
Volcanic Fill

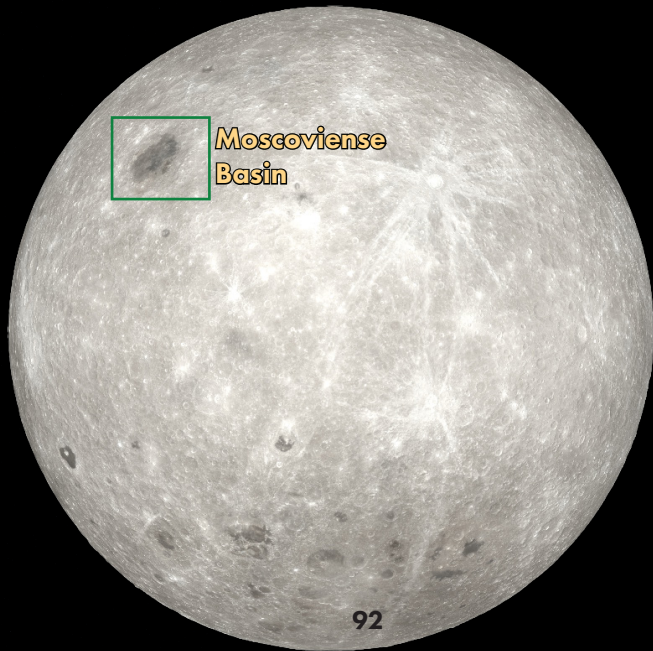
**Moscoviense
Basin**

91



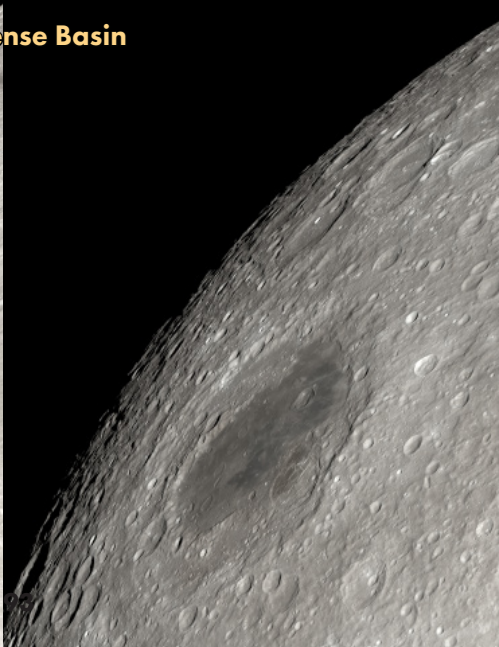
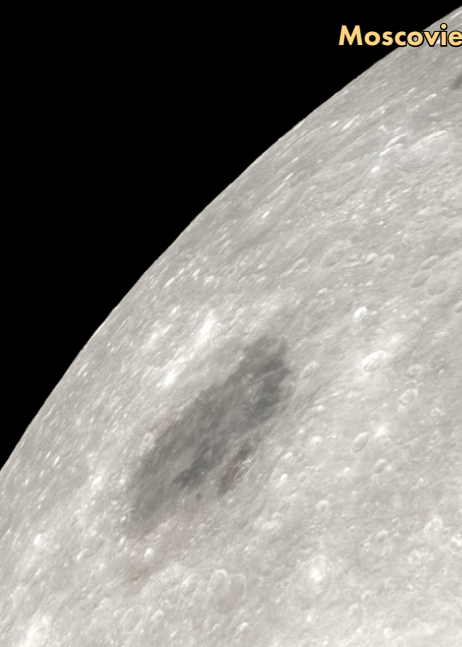
Campbell Crater
Volcanic Fill

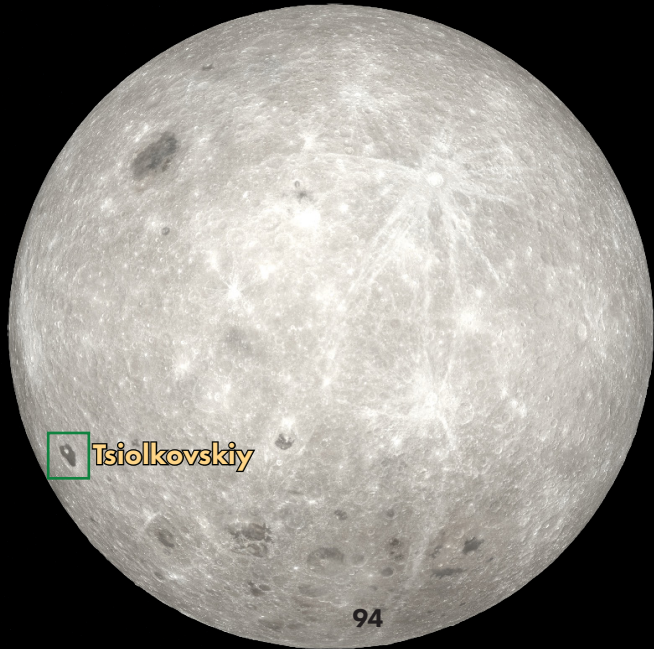
**Moscoviense
Basin**



**Moscoviense
Basin**

Moscoviense Basin





Tsiolkovskiy

Tsiolkovskiy





• Compton

Moscoviense
Basin

• Catena Artamonov

• Mare Marginis

• Necho Crater
Albedo Anomaly

Tsiolkovskiy

• Jules Verne

• Ryder

South Pole

DEPARTING SIDE



Necho Crater
Albedo Anomaly

**Necho Crater
Albedo Anomaly**





**Catena
Artamonov**

Catena: a chain of closely spaced craters. These craters usually form from impacts but could also form from subsurface processes.

Catena Artamonov



Moscoviense Basin



***** With higher illumination,
the catena is less prominent**

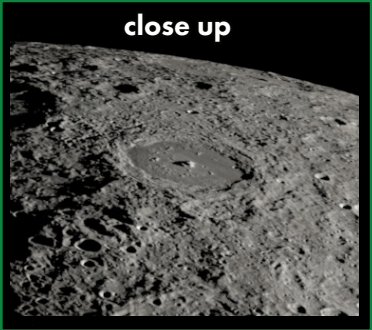




Compton



Compton

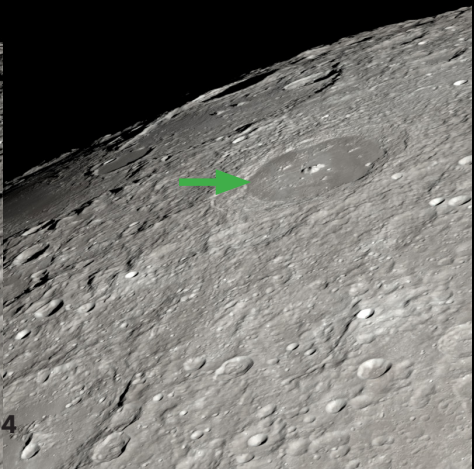
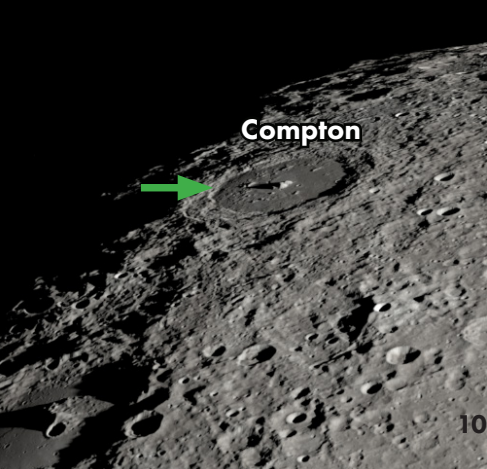


close up

**Moscoviense
Basin**

T03

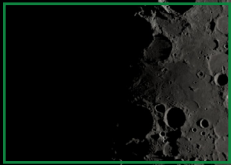
alternate view and lighting



Mare Marginis



alternate lighting (terminator on opposite sides of Mare Marginis)



full illumination

