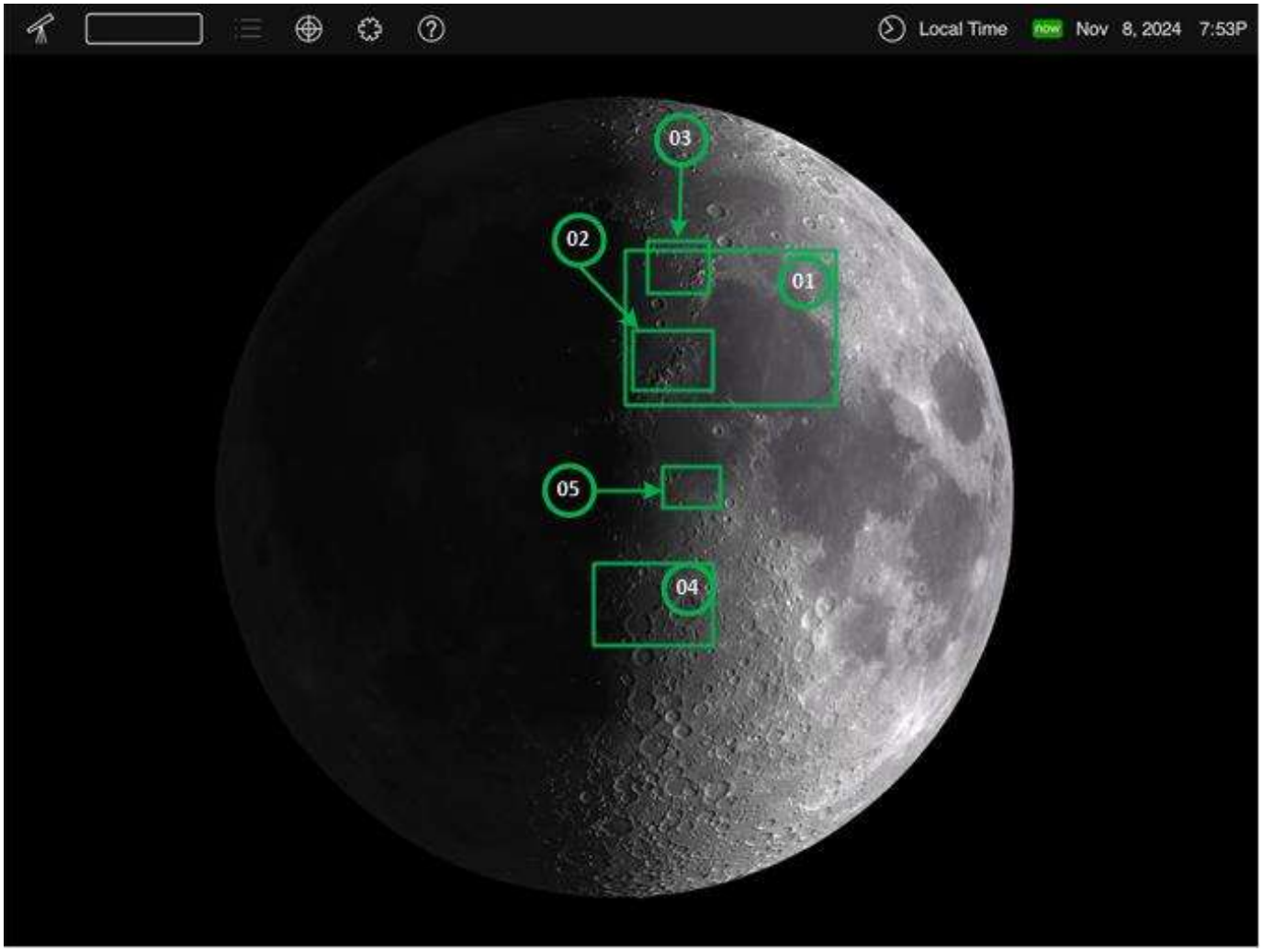
Exercise: The Moon

What objects of interest to view on the moon is highly dependent on the phase of the moon when you observe it. This is because features close to the terminator since shadows are more pronounced and highlights features better.

First, we need to determine the phase of the moon for our observation session. A great online resource for this is the NASA website NASA Moon Phase and Liberation, 2024. You can also purchase moon atlases or download an application for exploring the moon. The Moon Globe HD (iOS, $1.00) is a great application for this. A PDF map of the moon showing many features can be downloaded from the USGS website.

Using your references and knowledge of where the terminator will be for the lab, locate a few objects you would like to observed along the terminator line area. Make note of where the targeted item is in reference to one of the easily identified landmarks on the moon.

Reference	Targets	
Area 1 – Mare Serenitatis	A – Aristillus Crater	Diameter = 34 miles. In the middle three clustered peaks rise to a height of about ½ mile.
	B – Mountain Range	See what details you can identify on this rang that divides the Mare Imbrium from the Mare Serenitatis
Area 2 – Rimae Fresnel	A – Apollo 15	Apollo 15 landing site
	B - Fissure	Expected to be caused by tectonic stress
Area 3 - Cassini	A - Crater	Note the various other craters within this crater
Area 4 - Ptolemaeus	A – Line of Craters	Note the line of craters. Was this caused by a series of meteors impact or from cavern cave-ins?
	B – Albategnius Crater	Examine the crater and center mountain
Area 5 - Hyginus	A - Fissure	Note the craters along the fissure expected to be cave-ins


Local Time
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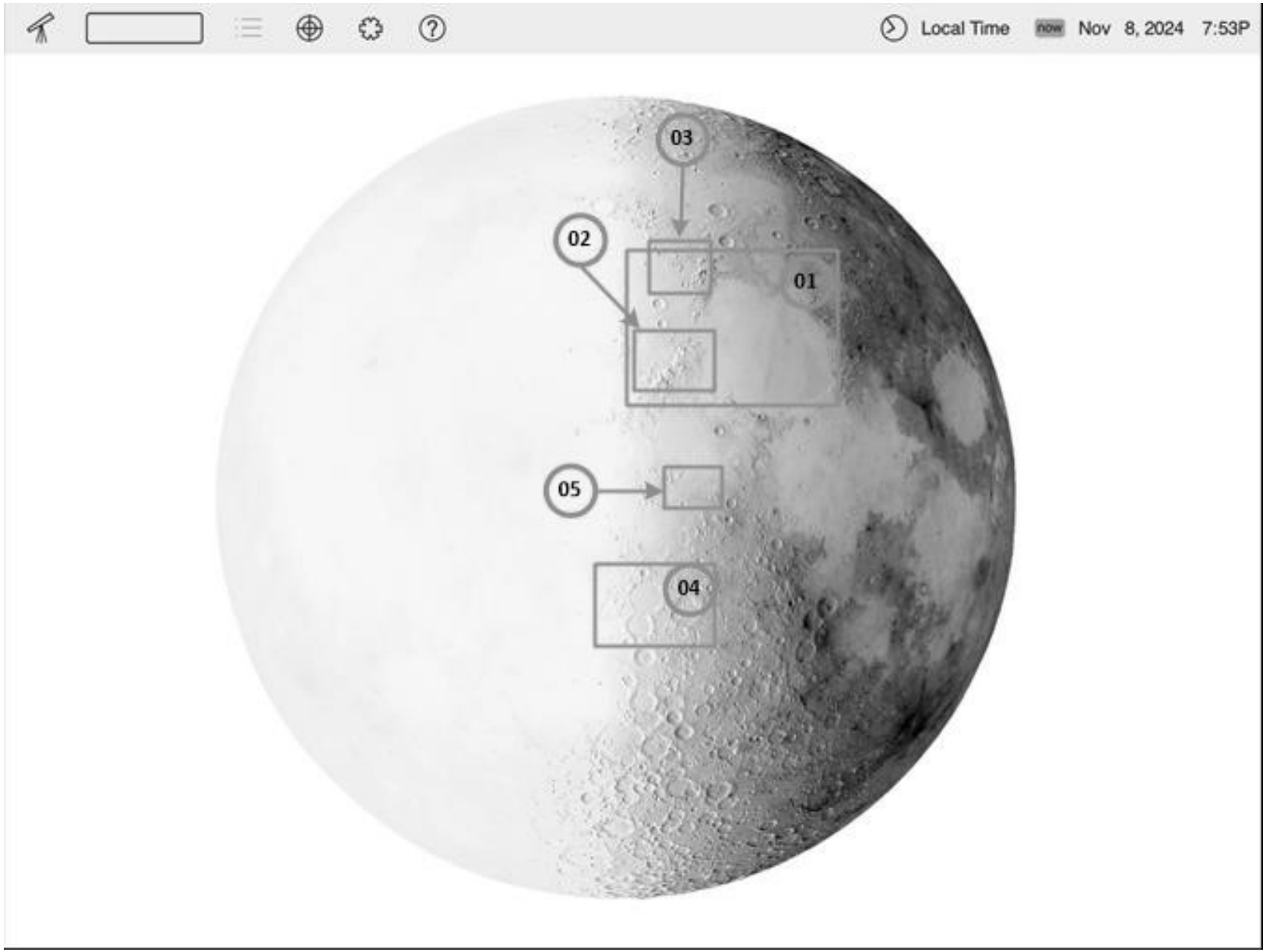
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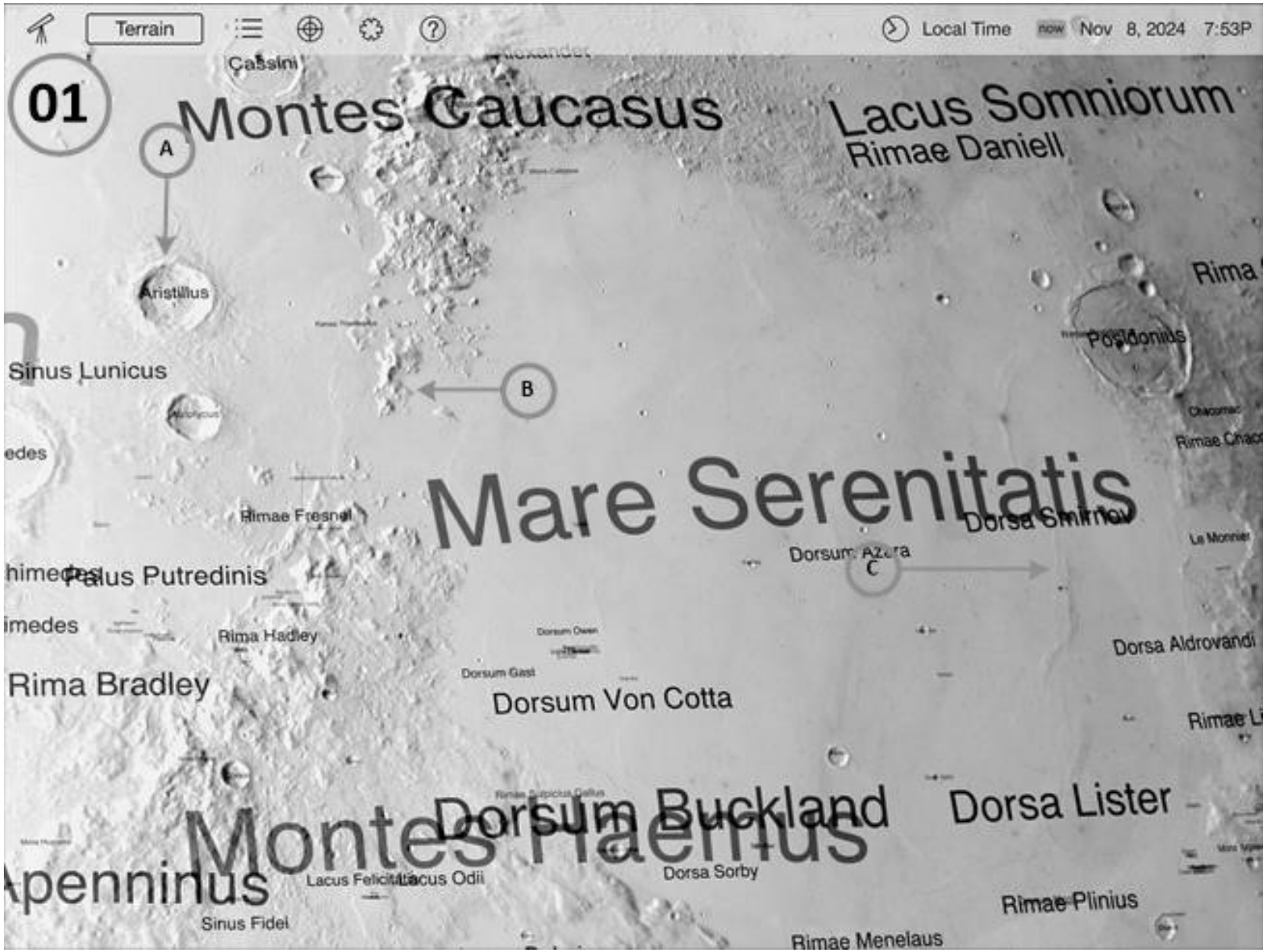
Terrain
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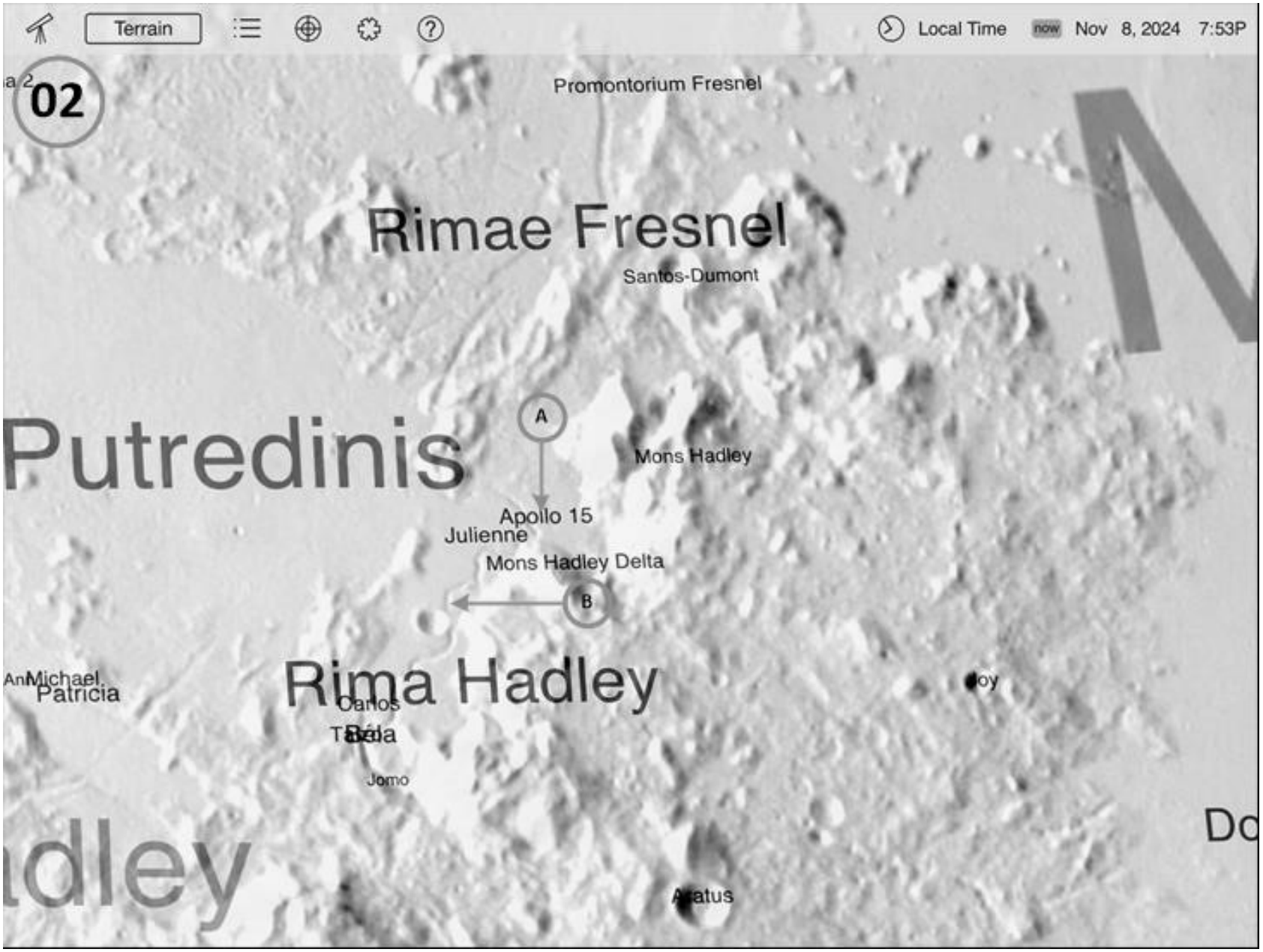
01
A
B
C
Montes Caucasus
Lacus Somniorum
Rimae Daniell
Aristillus
Sinus Lunicus
Rima
Posidonius
Rimae Chacornac
Mare Serenitatis
Rimae Fresnel
Dorsa Smirnov
Dorsum Azara
La Monnier
Palus Putredinis
Rima Hadley
Dorsum Owen
Dorsum Gast
Dorsa Aldrovandi
Rima Bradley
Dorsum Von Cotta
Rimae Li
Dorsum Buckland
Dorsa Lister
Montes Haemus
Apenninus
Lacus Felicitatis
Lacus Odii
Dorsa Sorby
Rimae Plinius
Sinus Fidel
Rimae Menelaus


Terrain
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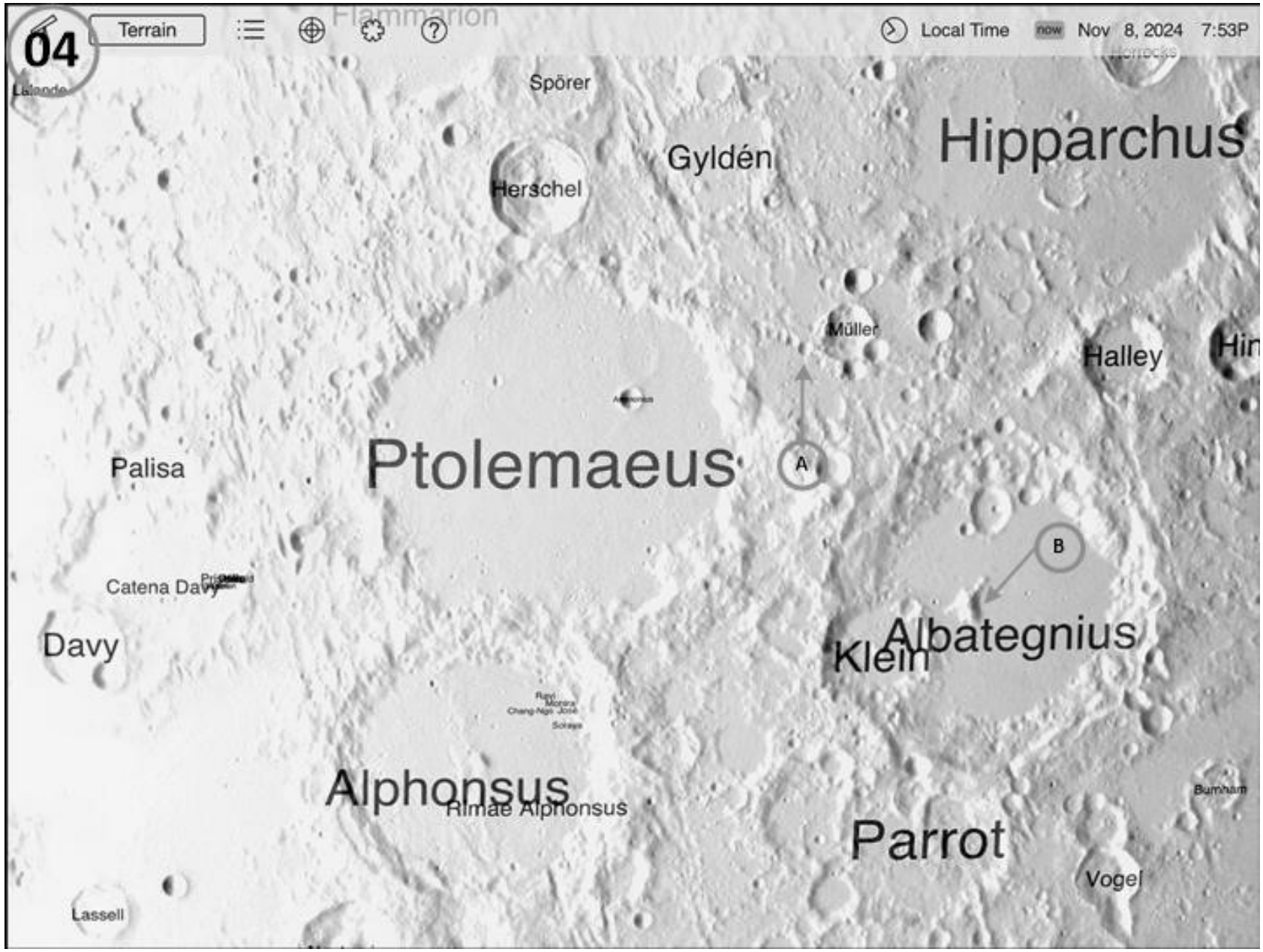
02
Promontorium Fresnel
Rimae Fresnel
Santos-Dumont
Putredinis
A
Mons Hadley
Apollo 15
Julienne
Mons Hadley Delta
B
Rima Hadley
Michael
Patricia
Carlos
Jomo
Aratus


Terrain
Local Time
now
Nov 8, 2024 7:53P
Promontorium Deville
Promontorium Agassiz
A
Cassini
Montes Ca
Calippus
Theaetetus
03


04
Terrain
Local Time
now
Nov 8, 2024 7:53P
Spörer
Gyldén
Hipparchus
Herschel
Müller
Halley
Ptolemaeus
A
Palisa
B
Catena Davy
Davy
Klein
Albategnius
Alphonsus
Rimae Alphonsus
Parrot
Vogel
Lassell