

Guest on the [3/20/23](#) show, Richard C. Hoagland, shares a set of images to accompany his presentation.

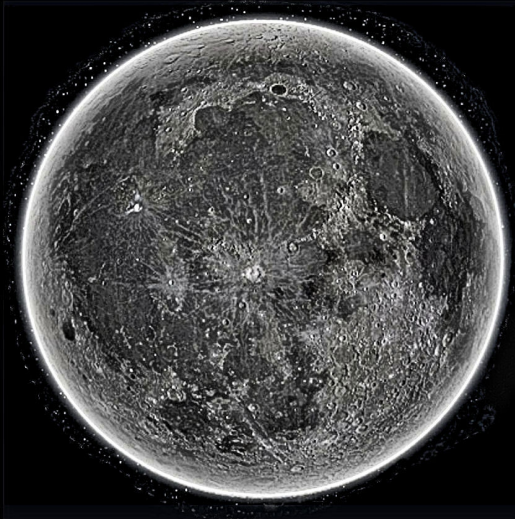


**1) South Korean Moon mission image on official website, showing anomalous "ring around the Moon" (left) compared to a much closer view of the same "anomalous lunar horizon glow ..." (right).**



**2) Comparison of South Korean "ring Moon" (left), and Earth satellite "Full Moon" view (right).**

"Danuri" Moon ....



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**3) South Korean "ring Moon" (left) compared to Chinese "borrowing" of the same view (right).**

## Wide-Angle Polarimetric Camera (PolCam)

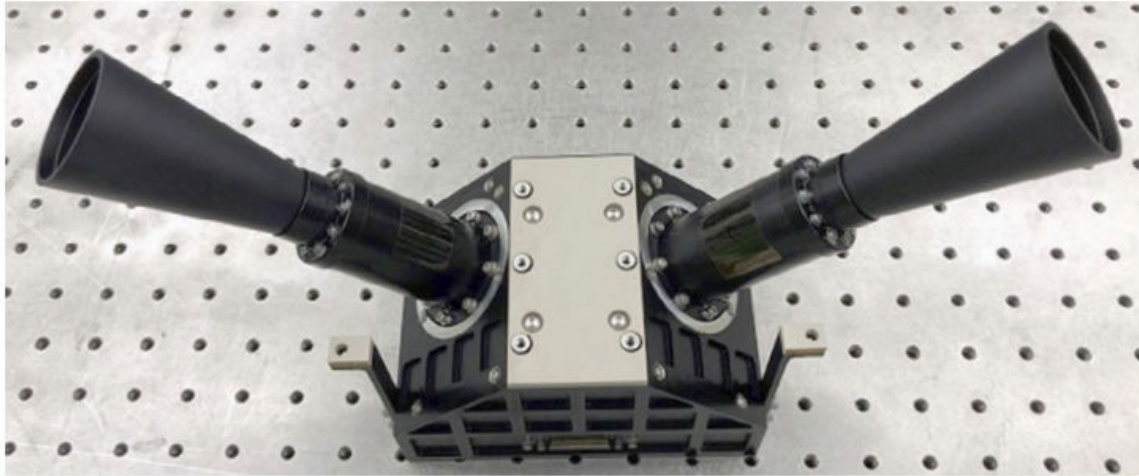


Image of the PolCam (wide angle POLarimetric CAMera) instrument. Image courtesy of KASI.

PolCam is a wide-angle polarimetric camera developed by the Korea Astronomy and Space Science Institute (KASI). Sunlight reflected by the lunar surface is partially polarized, or restricted to vibrating in one direction. PolCam will measure the degree of polarization providing information about grain size, composition, and space weathering. PolCam will be the first instrument to collect polarization measurements of the Moon from lunar orbit.

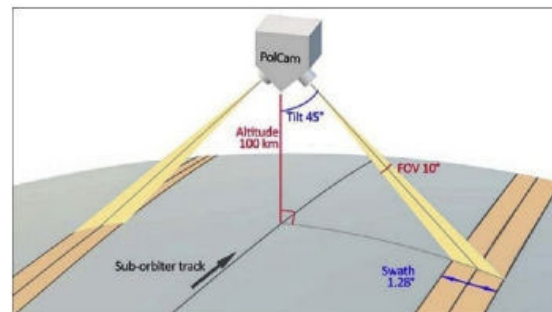
Four of the nine NASA KPLO Participating scientists will use PolCam observations to investigate pyroclastic (volcanic) deposits, the evolution of the topography and regolith, and lunar polarimetric anomalies. It is also possible to characterize the grain size of the regolith using polarimetric measurements. In addition to polarimetric measurements, the reflectance ratios at 320 and 430 nm will be used to map the titanium abundance of lunar soils.

### Objectives

1. Polarimetric observations at 430 and 750 nm wavelengths and phase angles between  $0^\circ$  and  $140^\circ$
2. Reflectance ratios at 320 and 430 nm of the Moon between  $70^\circ\text{S}$  and  $70^\circ\text{N}$

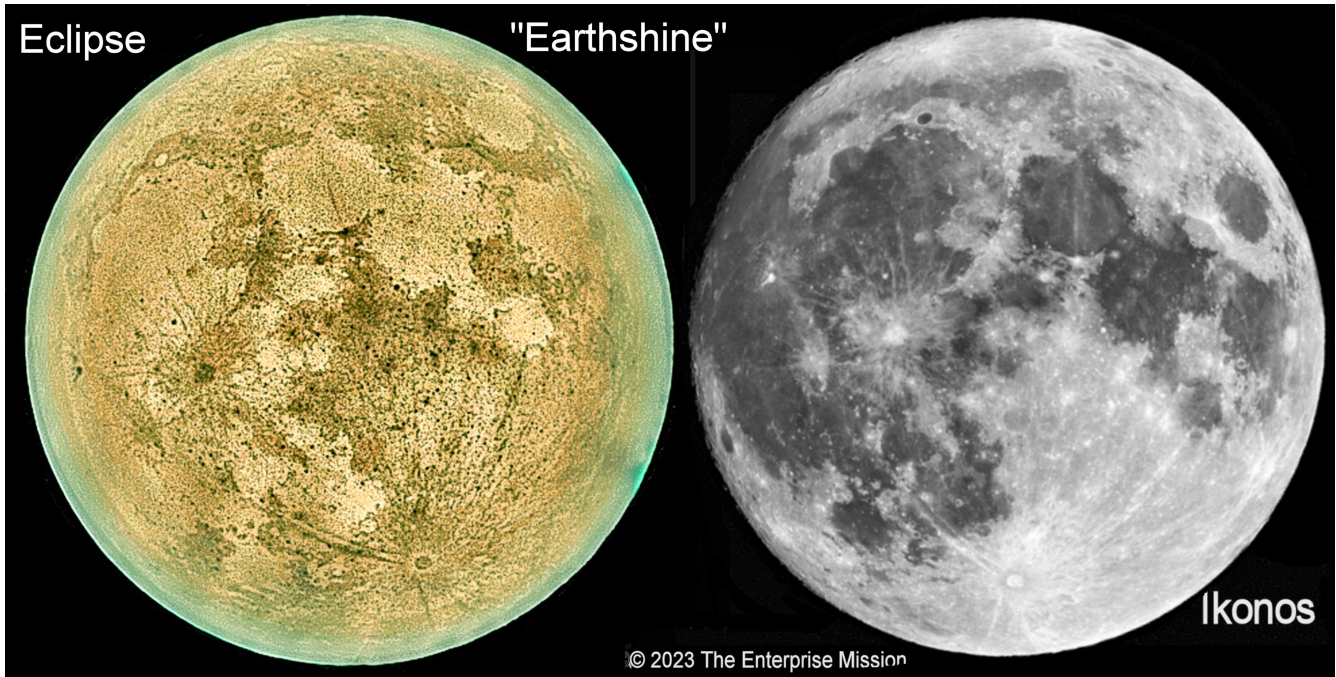
### Instrument Overview

- Two identical cameras at  $45^\circ$  angles from nadir, pointed in opposite directions
- Multispectral with filters centered at 320, 430, and 750 nm.
- 430 nm band has polarization filters for  $0^\circ$ ,  $60^\circ$ , and  $120^\circ$ .
- 750 nm band has polarization filters for  $0^\circ$  and  $90^\circ$ .
- Spatial resolution of 70 m/pixel at 100 km
- Swath width of 35 km per camera at 100 km altitude
- Mass of 3 kg



Schematic diagram of PolCam operations. Two identical cameras, each with a  $10^\circ$  field-of-view mounted in opposite directions at  $45^\circ$  angles across the orbiter track (image credit: KASI).

## 4) South Korean space agency official explanation of unique "lunar polarizing camera" which is taking the "anomalous lunar ring" images.



**5) Earthshine negative color eclipse- Ikonos Full Moon**



**6) USA map of upcoming 2024 Total Solar Eclipse path -- where citizens, by taking smartphone pictures of the eclipsed sun in special filters, will be able to TEST the "ancient lunar dome hypothesis" for themselves.**