2019 OPTICON TDF MEETING

Manolis Xilouris

Research Director

IAASARS/NOA

WHERE WE ARE

Helmos Observatory

2.3 m telescope (2007)

Altitude 2340 m

220 km west of Athens

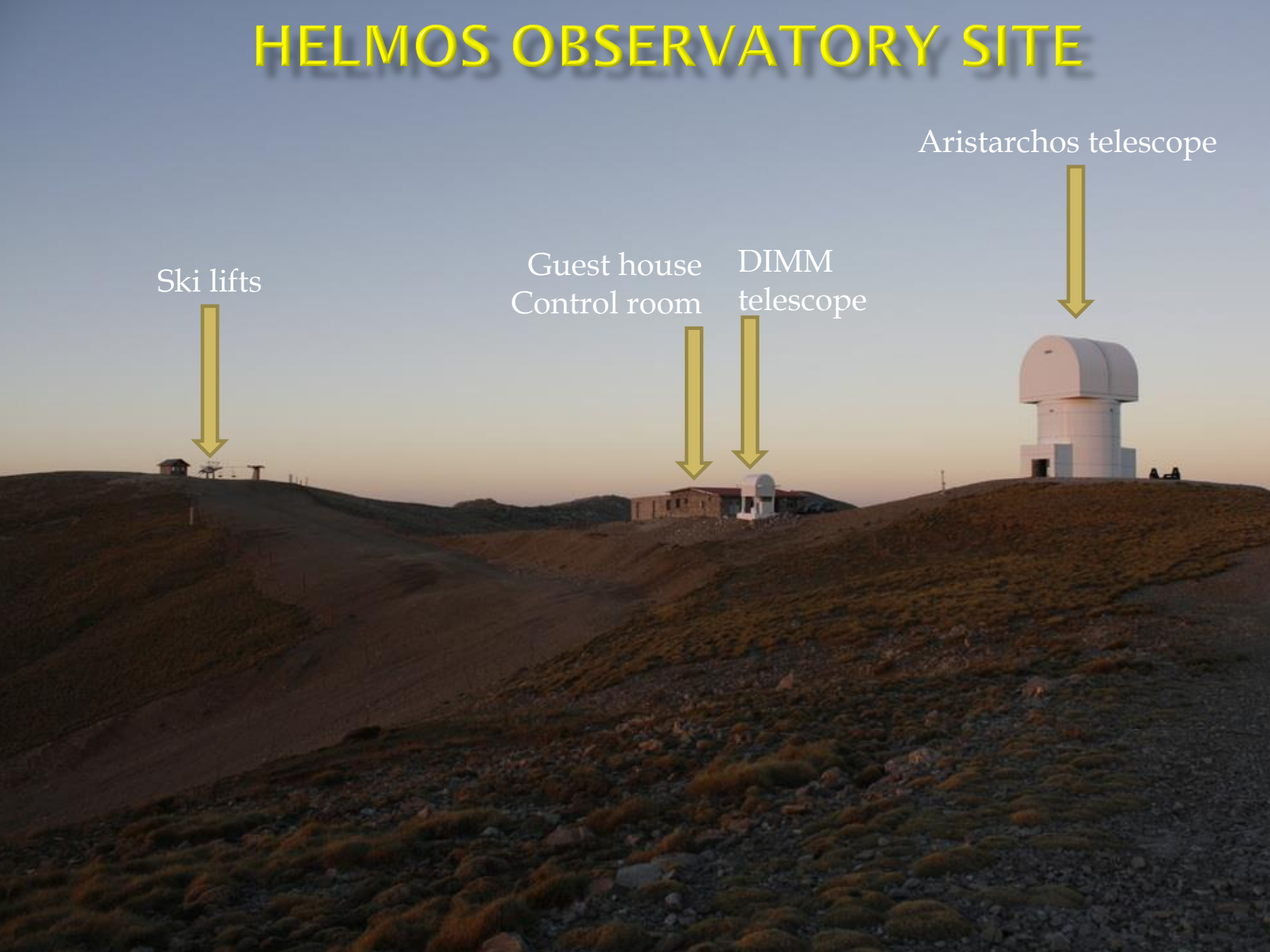
Kryoneri Observatory

1.2 m telescope (1975)

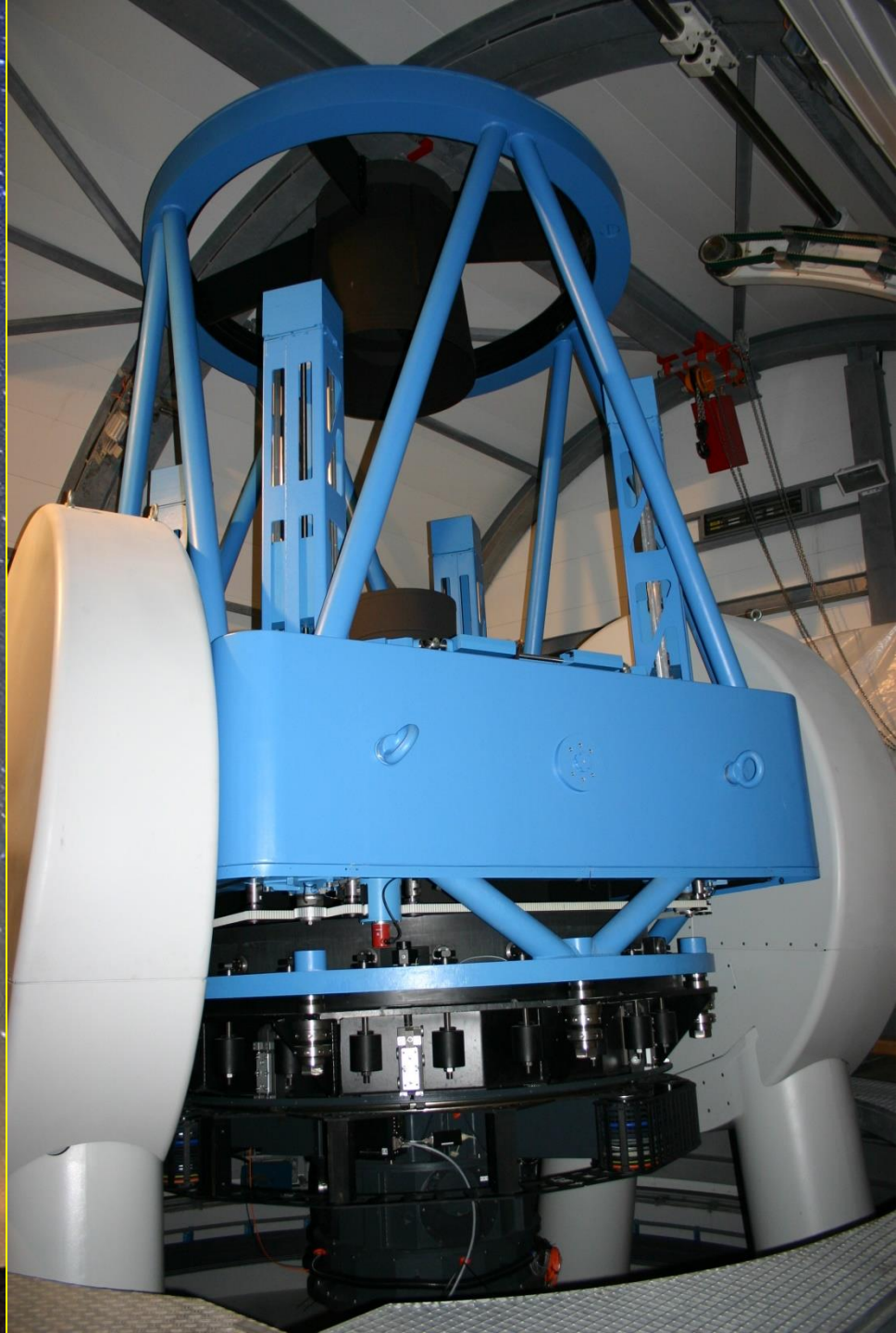
Altitude 930 m

130 km west of Athens

HELMOS OBSERVATORY SITE



ARISTARCHOS TELESCOPE




Driving from Kalavryta ski center to
Helmos Observatory

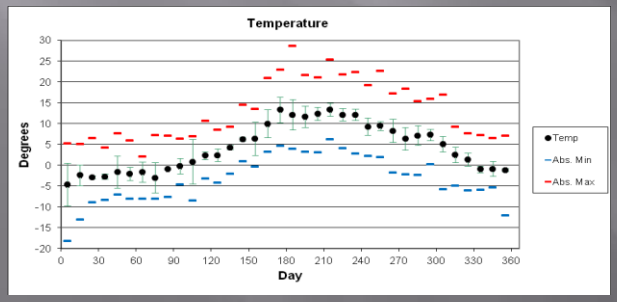
Driving from Kalavryta ski center to Helmos Observatory

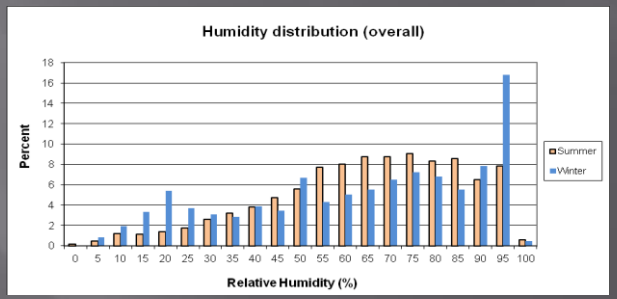
Electricity & communications

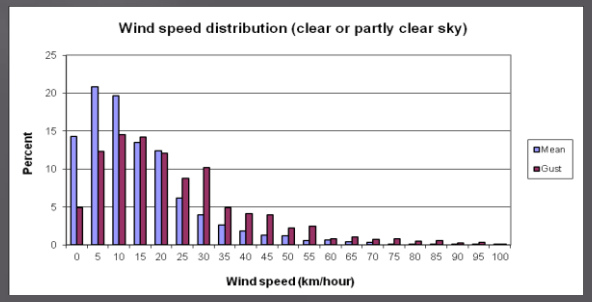
- Constant electrical power supply (250kVA)
- Two back-up power generators
- Fiber optics network 100 Mbps
- A back-up microwave antenna 30 Mpbs

The quality of the site has been evaluated using meteo data over the past 6 years.

- It is very dark with V band brightness ~21 mag/arcsec^2
- It is accessible 9 months per year
- Measured ~60 clear nights during June-November season
- Seeing measurements median ~0.78", lowest 0.25"



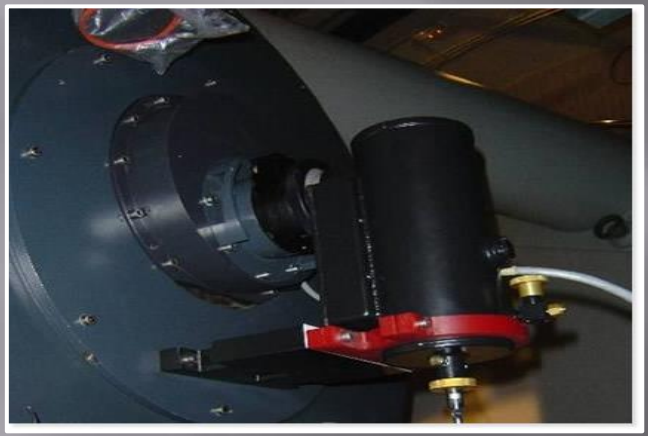




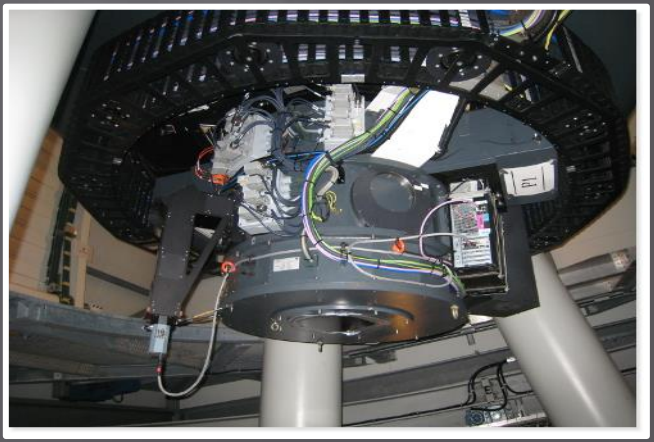
Current Telescope Instrumentation

Imaging

- Cassegrain Camera (2k x 2k), with a FOV 5’ x 5’, LN2 cooled
- Full suite of standard wide and narrow band filters.



- RISE2 (1k x 1k) Exoplanet finder (FOV 10’ x 10’) in collaboration with QUB and Liverpool JM Univ.



Current Telescope Instrumentation

Spectroscopy

- ATS low-/medium-resolution optical spectrograph (fiber fed, 4270 – 7730 Angstrom)

- Manchester Echelle Optical Spectrometer (TBC)

Upcoming Instrumentation

- Andor iKon-L (2k x 2k → FOV 5.5'x5.5')

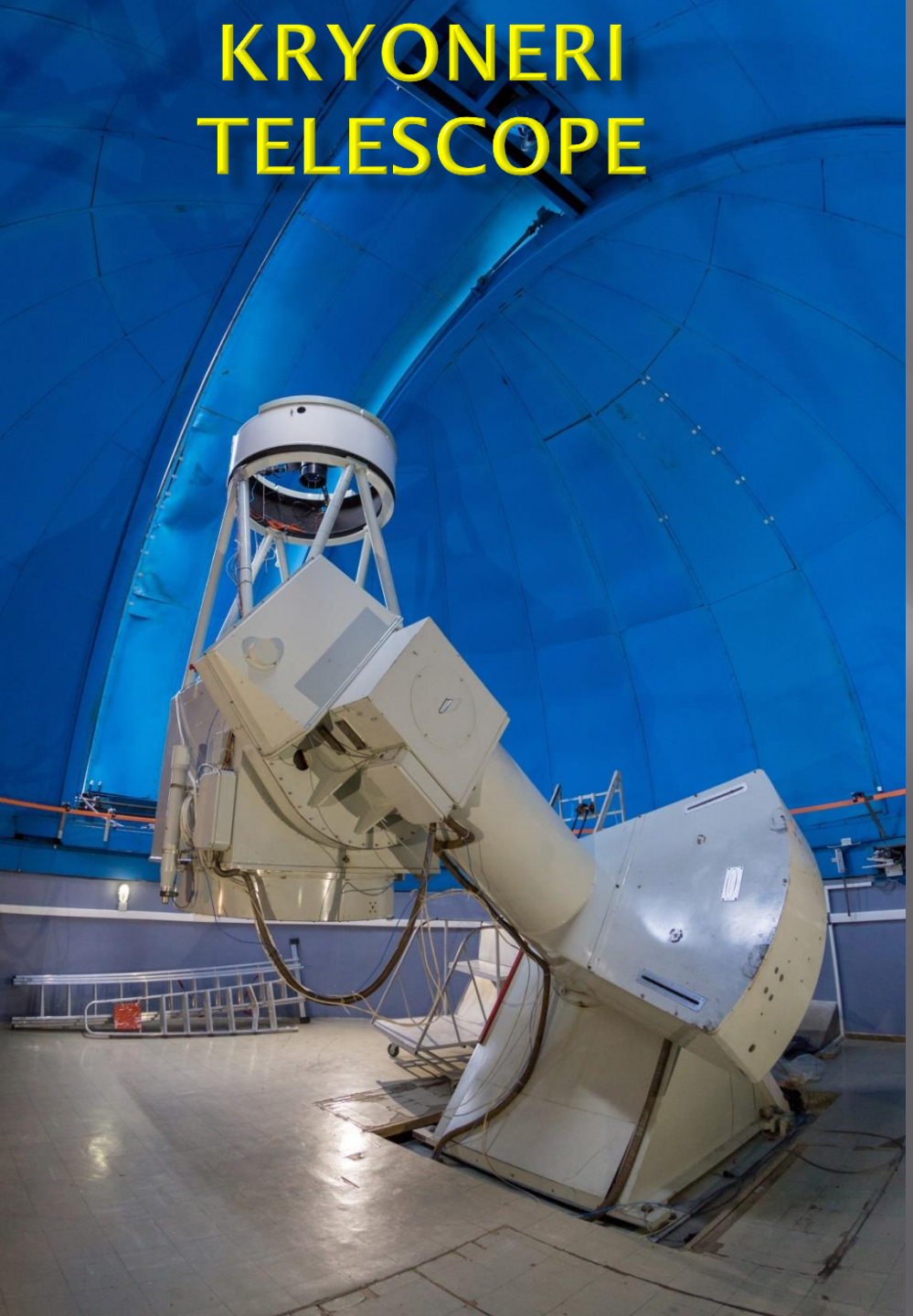
Order in place, delivery expected in August

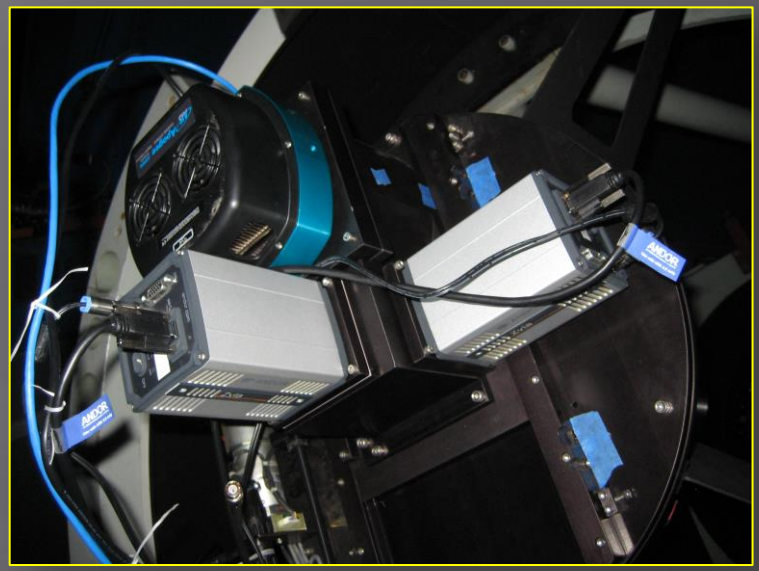
- Manchester Wide-Field Camera (FOV 27'x27')
- TEK 4k x 4k CCD
- Full suite of standard wide and narrow band filters.

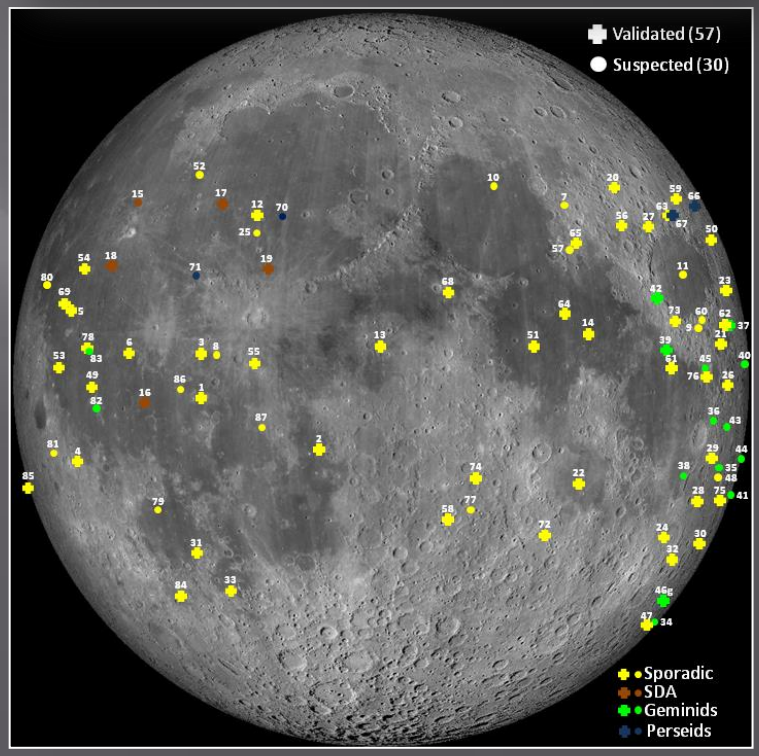
Fabrication completed – To be commissioned in 2020

KRYONERI OBSERVATORY

KRYONERI TELESCOPE







E.M. Xilouris, et al., 2018, A&A, 619, 141

OPTICON time awarded

ARISTARCHOS TELESCOPE
HELMOS OBSERVATORY
IAASARS

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OPTICON archival observations

Since January 1, 2016, the 2.3 Aristarchos telescope is a full member of the OPTICON network and participates in the TNA program, making its instrumentation available to the international community.

The following observations have been performed under OPTICON awarded time. According to OPTICON/H2020 rules the data become public one year after the observations have been obtained.

Call	PI	Project title	Date	Data
2017A	Dr Gracjan Maciejewski	"Precise transit timing for WASP-12 b"	30-31 January, 2017	data1
2017A	Dr Philippe Rousselot	"What is the origin of the light curve change of 174P / Echeclus?"	16-24 January, 2017	data1, data2, data3
2017B	Prof. Bruno Sicardy	"The stellar occultation by Neptune's satellite Triton"	5-6 October, 2017	data1
2019A	Mr. Mathew Hooton	Storms or Systematics? Investigating the changing eclipse depth of ultra-hit Jupiter WASP-12b	1,11,12,23,24 January, 2019	
2019B	Dr. Pawel Zielinski	Galactic Black Holes from Gaia astrometry and time-domain photometry	3 nights	

Impact of OPTICON

The involvement of NOA at OPTICON is critical because:

- It provides direct access to established knowhow on “good practice” methodology in running a facility
- It provides inside information on trends and plans regarding upcoming technology developments
- Facilitates our involvement is science collaborations (ie GAIA alerts)
- Brings scientists to our facilities (via TNA) which helps the networking of the local staff and students
- May bring some funding which will help in supporting the operation costs.