



The Atacama Astronomical Park

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What is the AAP?



-
- *Land concession to CONICYT (now ANID National Agency for Research and Development), administered by the non-for-profit Atacama Astronomical Park Foundation.*
 - *360 Km² area near San Pedro de Atacama.*
 - *Altitude from 4.000 to 5.600 meters above sea level.*
 - *Latitude near 23 degrees south*

22.5

Co. Toco
(5604 m)

**POLARBEAR
ACT
CLASS
SIMONS**

**CCAT
TAO**

Co. Chajnantor
(5640 m)

ALMA

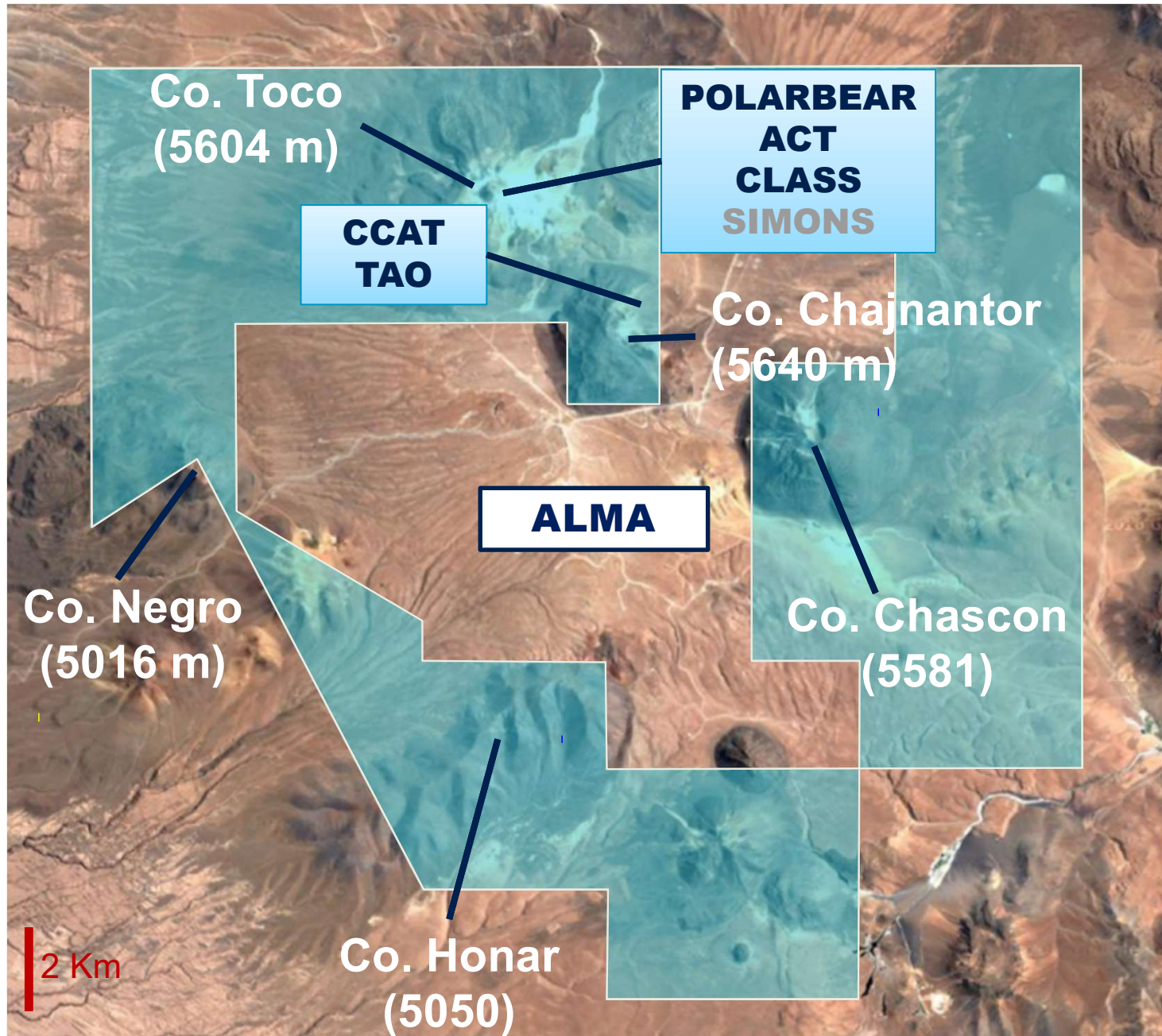
Co. Negro
(5016 m)

Co. Chascon
(5581)

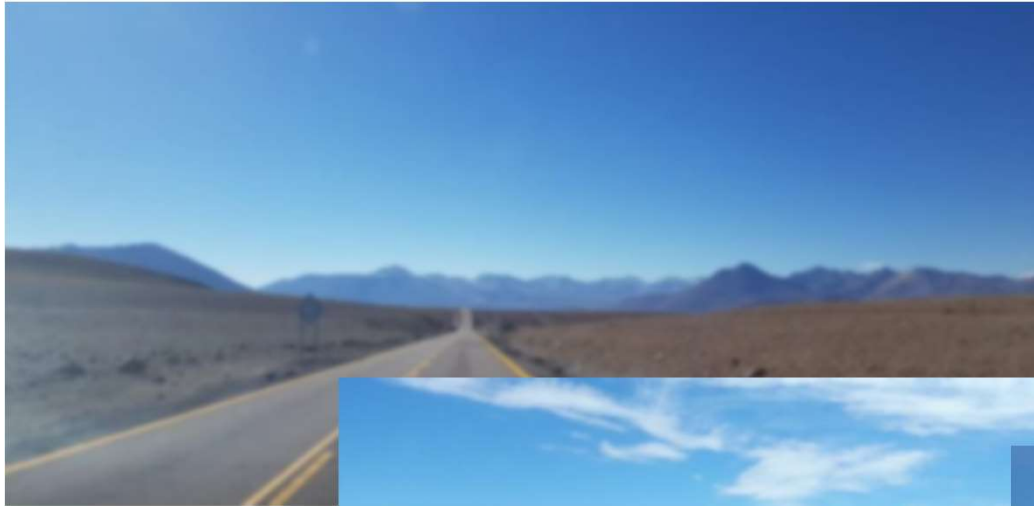
23.0

2 Km

Co. Honar
(5050)



What will you see at the Park?



Paso Jama International road to Bolivia and Argentina



Internal roads
At km 35



Many potential sites

Existing users

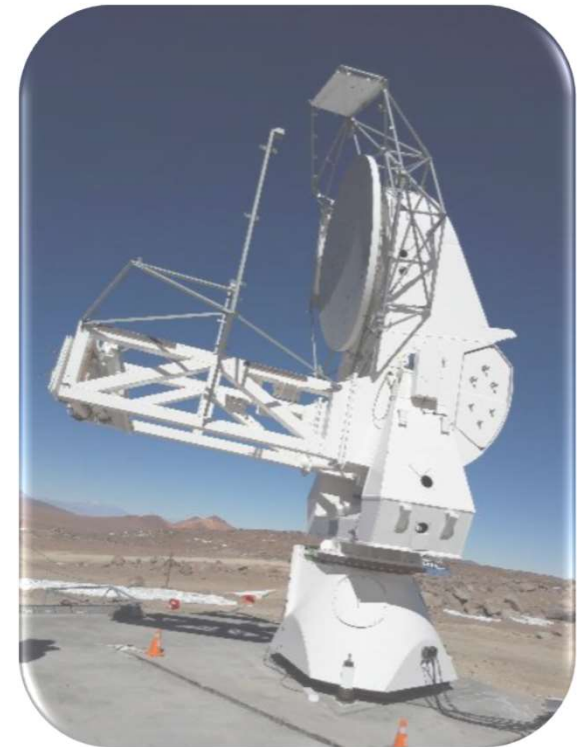
CLASS

Cosmology
Large Angular
Scale
Surveyor



ACT

Atacama
Cosmology
Telescope

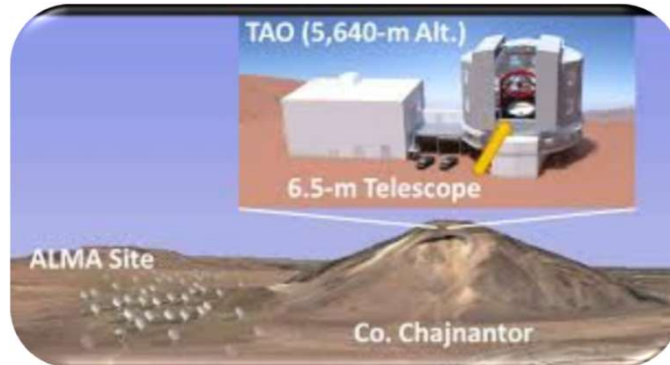


POLARBEAR
Simons Array

New comers

TAO

U. of Tokyo Atacama Telescope
Cerro Chajnantor

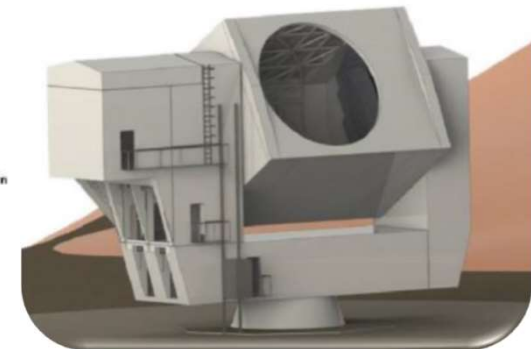
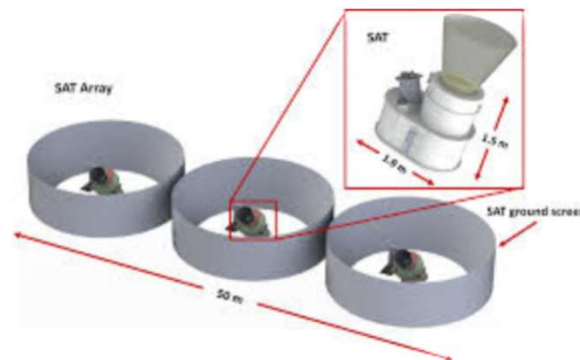


CCAT

Cerro Chajnantor Atacama Telescope



SIMONS OBSERVATORY
Cerro Toco



The strategic pillars of the AAP

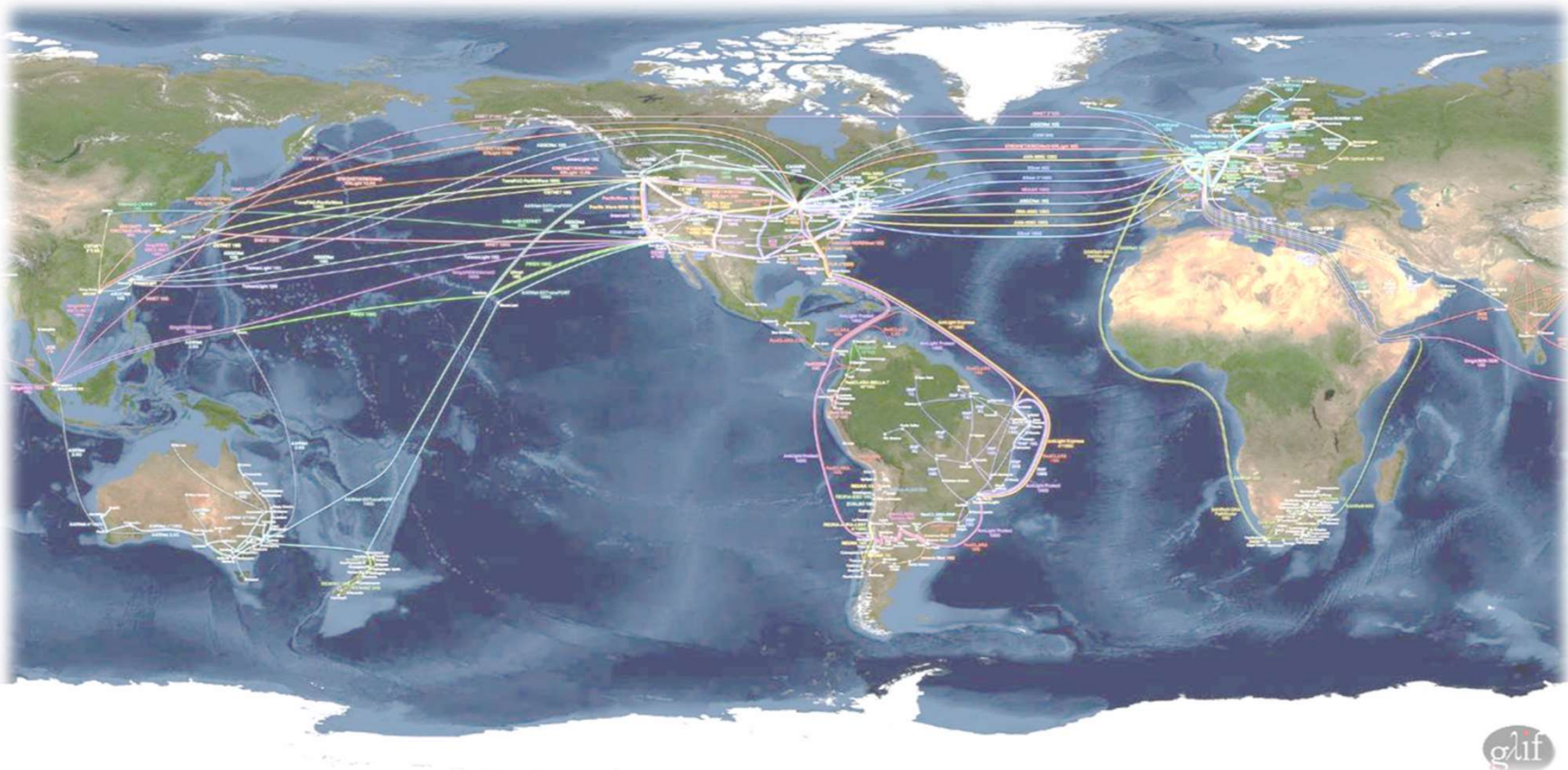


- Telecommunications
 - Fiber optic
- Energy
 - Environmentally friendly and centralized if possible
- Safety & Security
 - Local best practices and experience
- Road access
 - Safe & expeditious

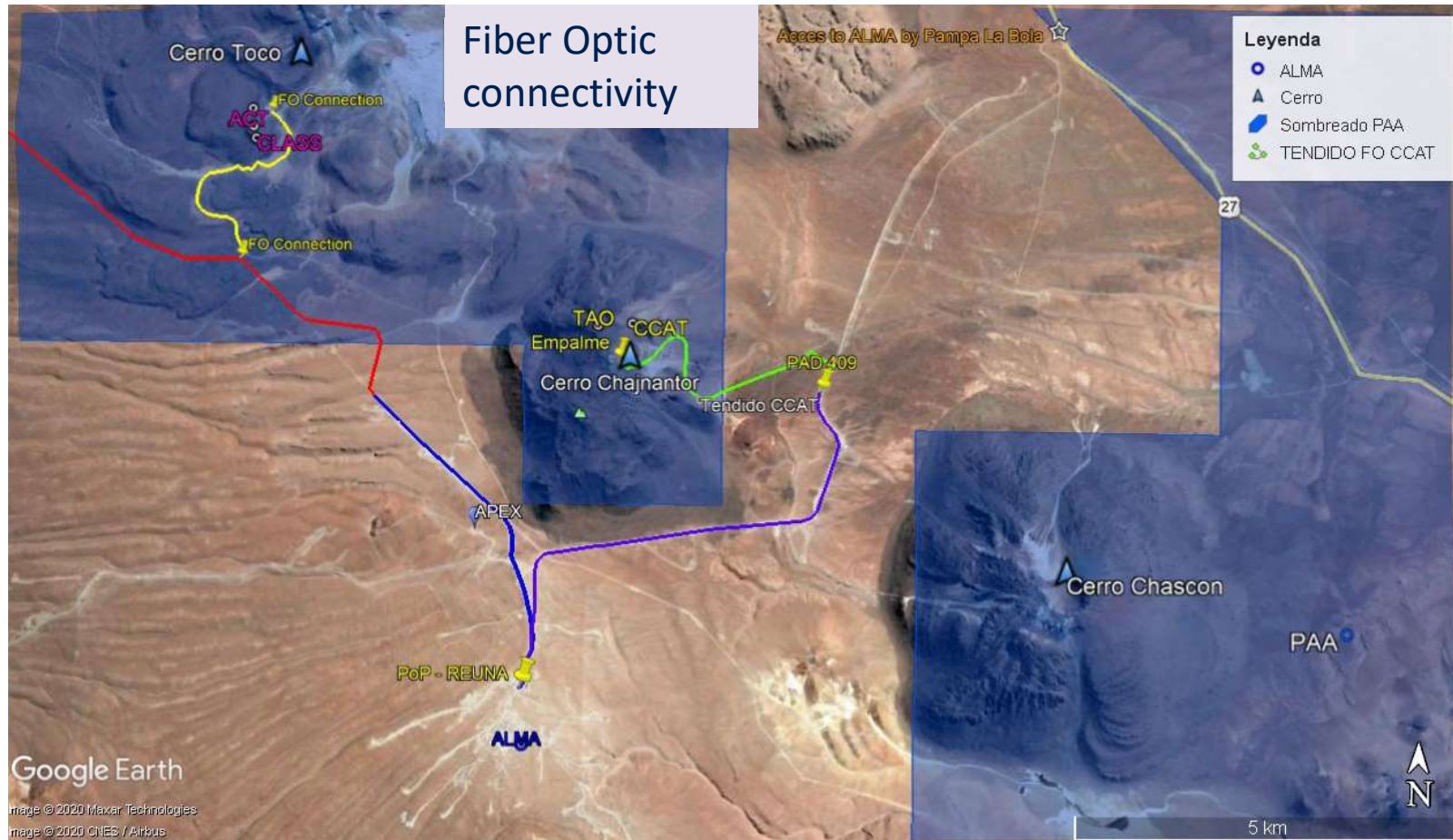
Global connectivity plan of AAP



Fiber Optic World Access with REUNA



Local connectivity plan



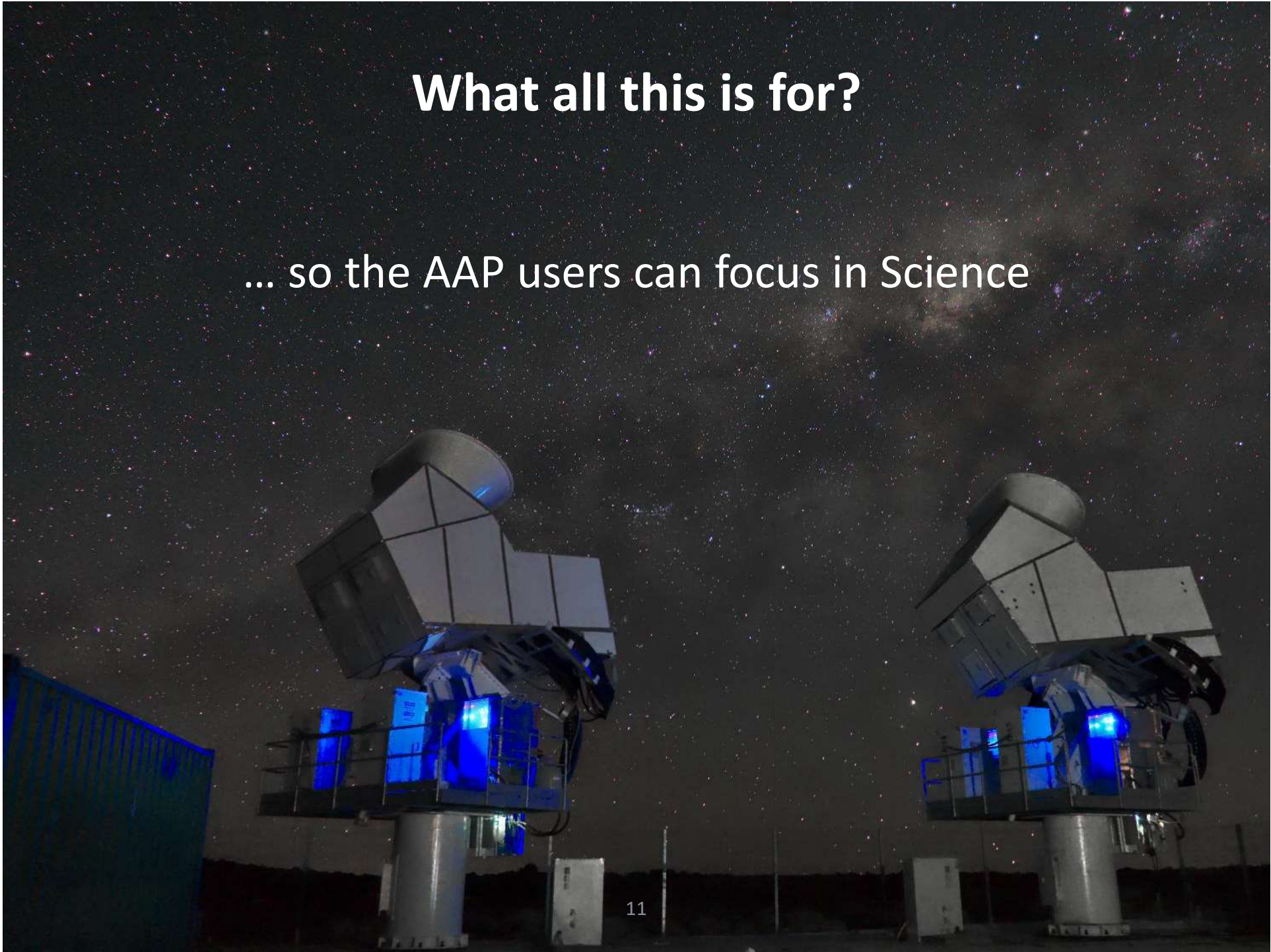
Other strategic planning

- Environmentally friendly power generation
- Centralized safety & security
- Road access improvement



What all this is for?

... so the AAP users can focus in Science



What the Park offers



- *Strategic planning*
- *Administration and supervision of common areas*
- *Analyse new projects in the context of the other projects*
- *Judicial protection of the Park*
- *Hiring of staff and services*
- *Administration of basic services such as trash removal*
- *Administration of annual contributions*

Comments on high altitude working considerations



- All works between 3,000m and 5,500m follow specific legal considerations among which:
 - Decree 40 of work ministry (risks prevention)
 - Decree 594 of health ministry (sanitary conditions)
 - Decree 1113 Technical hypobaric guide of health ministry
 - Cardio test
 - Lung X-rays, etc.
- Above 5,500m harder restrictions apply
 - Permanent use of Oxygen
 - Resting zones
 - Gradual daily hours of work
- Alma standards above 3,000m
 - Driver must use oxygen
 - Pre-check of health status before going up

Comments on legal considerations (1/2)



- Chile is a mining country
- Chile has local indigenous population
- Chile worries for its flora and fauna
- Chile worries for its environment
- The AAP supervises and ensures that all these aspects are assessed
- The AAP has special status as a scientific territory, hence protected from mining endeavors, light pollution, radio pollution

Comments on legal considerations (2/2)



- Users must make a contract with the AAP and:
 - Provide an annual contribution
 - 10% of observing time (or equivalent) to the local astronomical community
 - Financing specific topics affecting its own needs, even if managed by the AAP e.g. last mile fiber access
 - Must have safety procedures in line with AAP's safety procedure
 - Present the plan for construction and operations
 - During construction archeological impact must be assessed and checked
 - Comply with Chilean regulations (work, health & safety, etc.)
 - Decommission the Project once finished

Comments on eventual specific support from the AAP



- Coordination or hiring of local constructors
- Coordination or hiring of local services
- Provide engineering services for construction and operations
- Others as needed

¡GRACIAS!