

Remote Operations @ Gemini “Base Facility Operations”

Atsuko Nitta (Gemini Observatory)



“Remote”? – Different Flavors

- **No one at the summit at night**

Night crew @ Base (or other location)

→ UH88, UKIRT, CFHT, Gemini, JCMT (hybrid approach, night time@Summit, extended time@Base)

- **Night crew spread in two locations**

- Telescope Operation @ summit

- Science Observation Execution @ non-summit

→ IRTF, Keck

- **Robotic** : No one human involved in night time operation. → Anyone planning?

For Gemini, we call it “Base Facility Operation” so people know that **we operate from Base Facilities and no where else.**

Base Facility Project at Gemini

- Biggest Project (staff involvement) since we built Gemini telescopes
All staff contributed to the project (i.e. **significant commitment** required.)
- Big Cultural Change – **Buy-in and Communication are important.**
- Introducing **Changes to Operations** with Minimum interruptions (Planning, formal CR, TR processes)
- Schedule Driven
- Prince2 principles followed

More formal than you might think to ensure solid reliable products are delivered w/ documentations/spares/training.

Thank you for UKIRT and CFHT for their support/advices. Craig Walther, Todd Burdullis, Tom Vermuelen for being part of our review.

Important to know what the goals are!

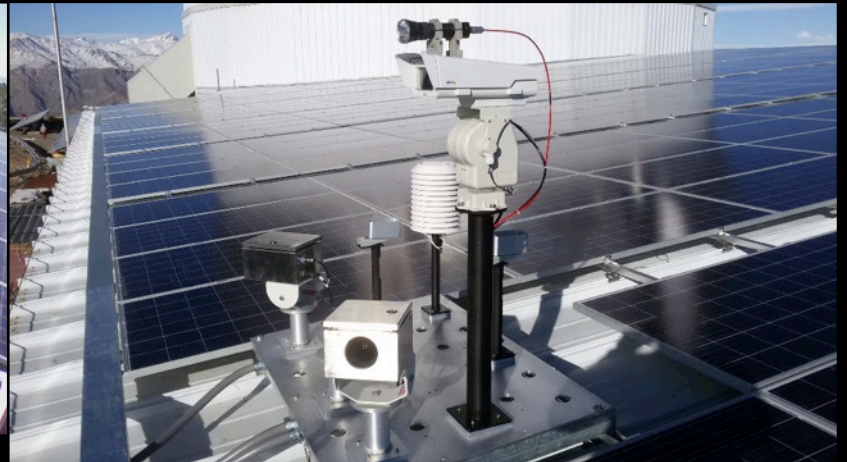
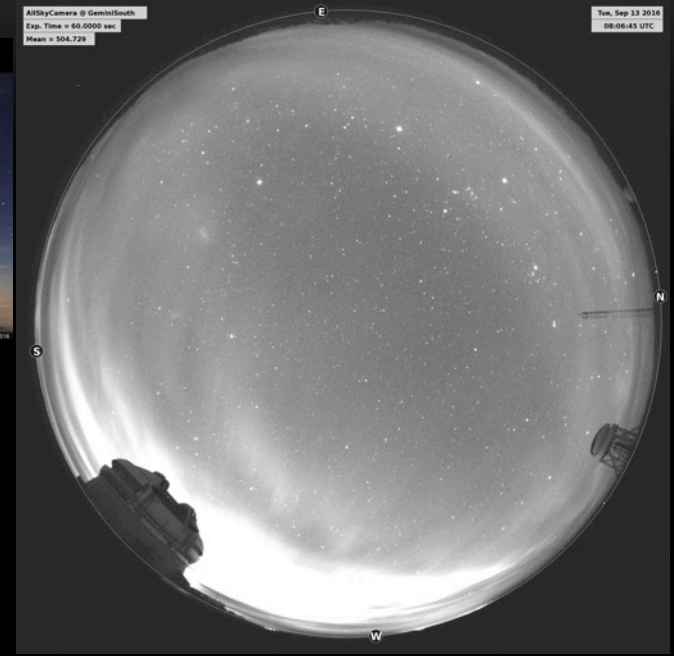
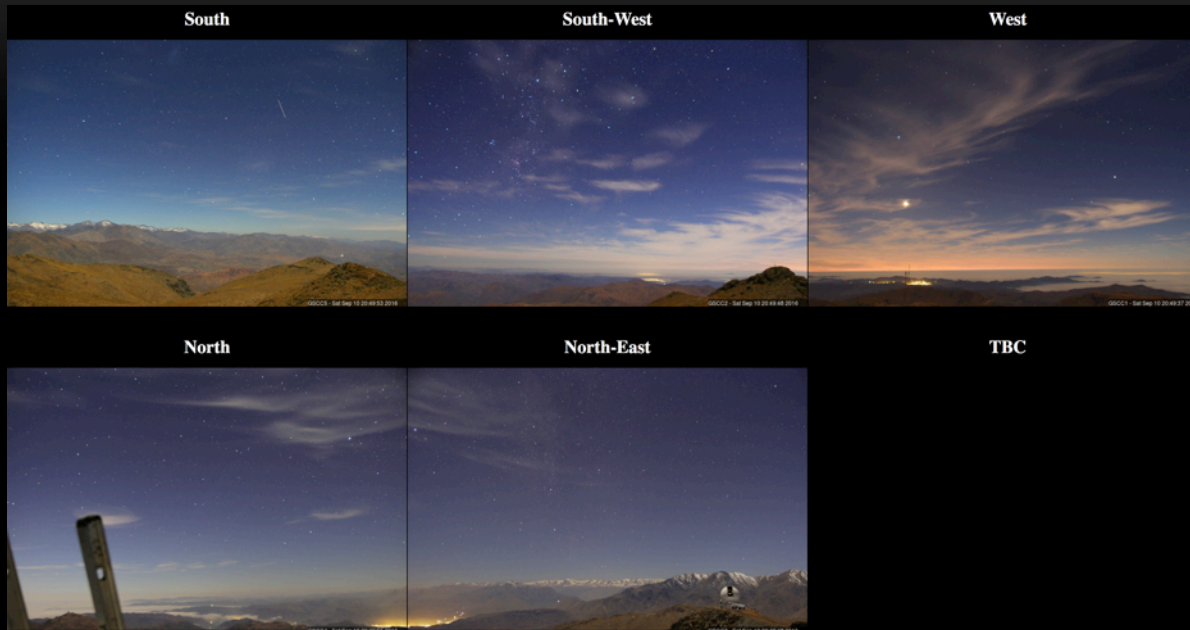
- Good amount of time spent in project planning (about 9 months).
- Project strategy “**Gradual Descent**”
 1. Get rid of the need to go to the Plant Room, Computer room, Observing Floor, Outside – i.e. **no need to go outside the control room. No other “improvements”**.
 2. We move from summit control room to base facility control room.
 3. We will start using items/systems as they become available.
- “**Bare Minimum Approach**” (Not Gemini “makeover”)

No over-engineering, but not quick-and-dirty.

Solid, lean products will be delivered w/ the idea that BFO must be sustainable and supportable post 2015/2016.

No on-sky time lost since the start of Base Operations!

Pretty Pictures



People you might want to contact...?

- Project Manager, Cloud Camera = Martin Cordova (GS)
- System Engineer = Andrew Serio (GS, formally GN SOS)
- Facility Protection System = Arturo Nunez (GS)
- Telescope System Remote Switch = Cristian Urrutia (GS)
- Mirror Cover upgrade (among other things) = Steve Hardash
- Audio & Visual equipment = Neal Masuda
- Remote Recovery, Weather Sensor Upgrades = Eduardo Tapia
- TBAD = Jeff Donoghue
- EDS, Generator Power = John Randrup
- MK summit facility modification = Harlan Uehara/Joe D'Amato
- HBF modification = Beverly Lidyoff
- Safety = John Vierra