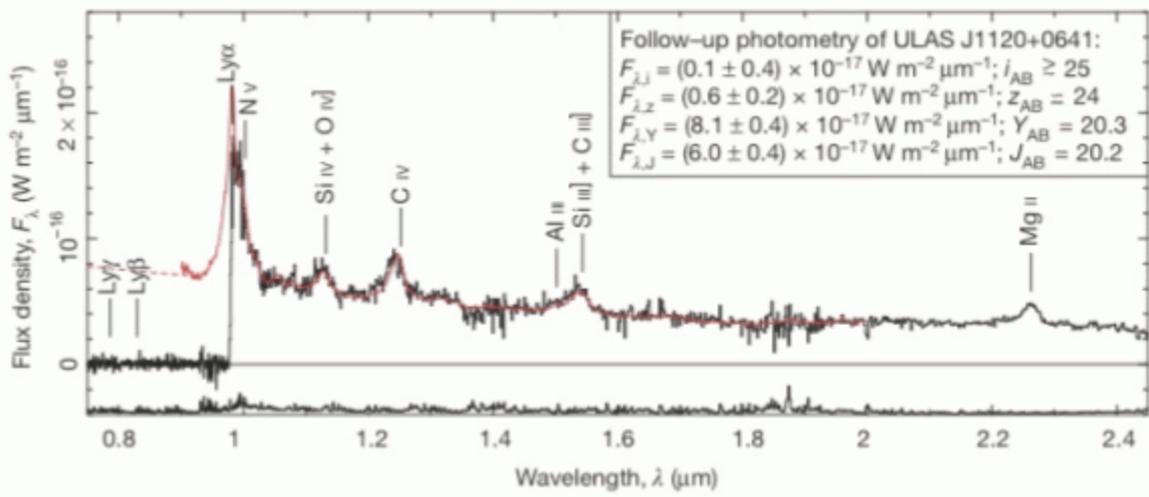


# Gemini Observatory Update



**GNIRS Observations of a  $z=7.1$  QSO.  
Mortlock et al., 2011**

**Change at Gemini**

**New Instrumentation  
at Gemini**

**Exchange Program  
Updates**

**Future Time Exchange  
Process**

**Scot Kleinman  
Gemini Observatory**

\* Fred Chaffee – Interim Director

\* Maximilian Hell – Director  
for Development

\* Andy Ahearne – Director  
remain

\* New Director  
interim term  
Way – Fred's  
May 2012

\* UK withdrawal at end of year

\* Partnership extended through 2015



- ✳ AO Progress (see Doug Simons's presentation)
  - ✳ GeMS/MCAO/GSAOI in the South
  - ✳ LGS/Altair System in the North
- ✳ New Deep Depletion E2V CCDs installed in GMOS-N

Old

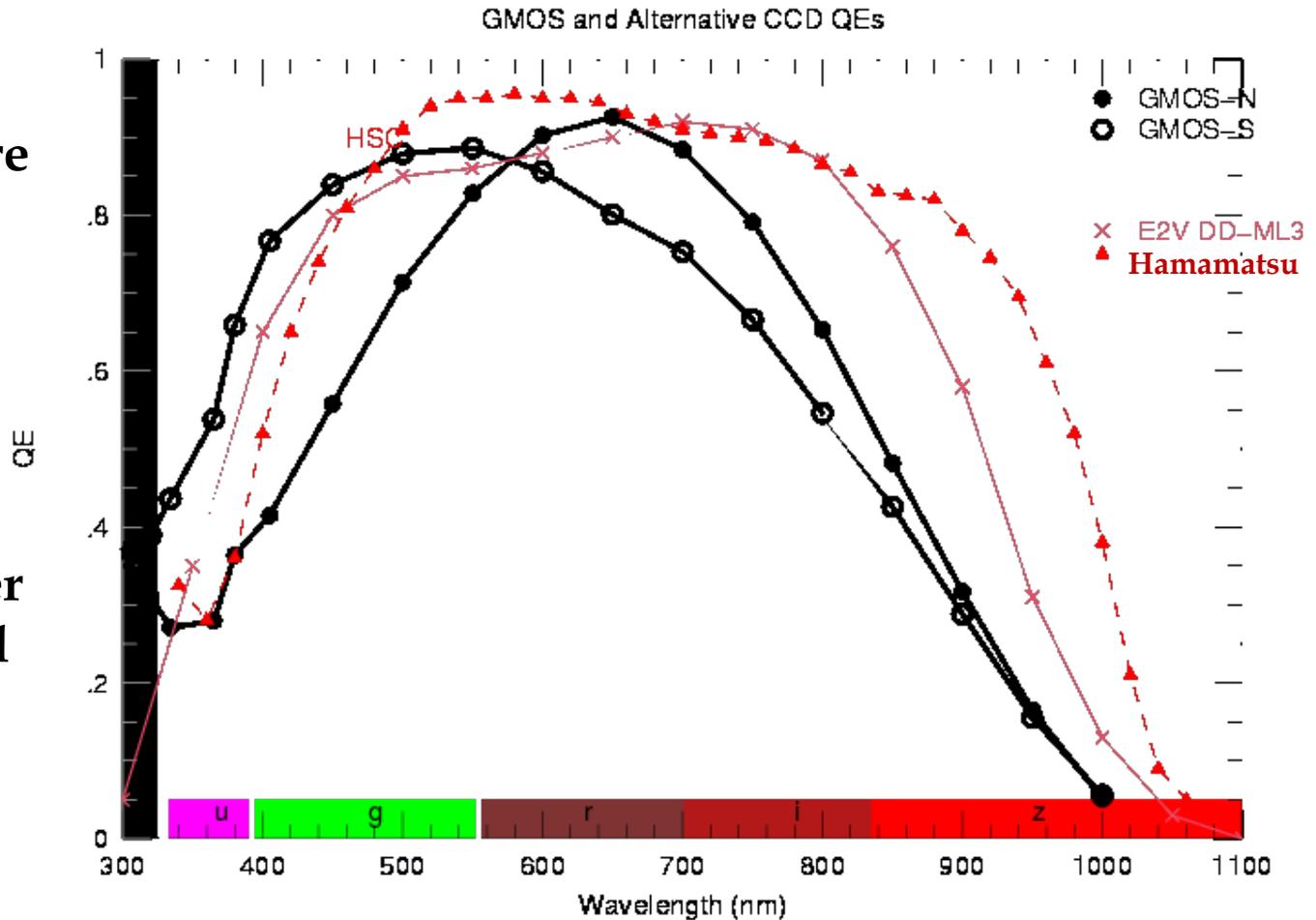
New

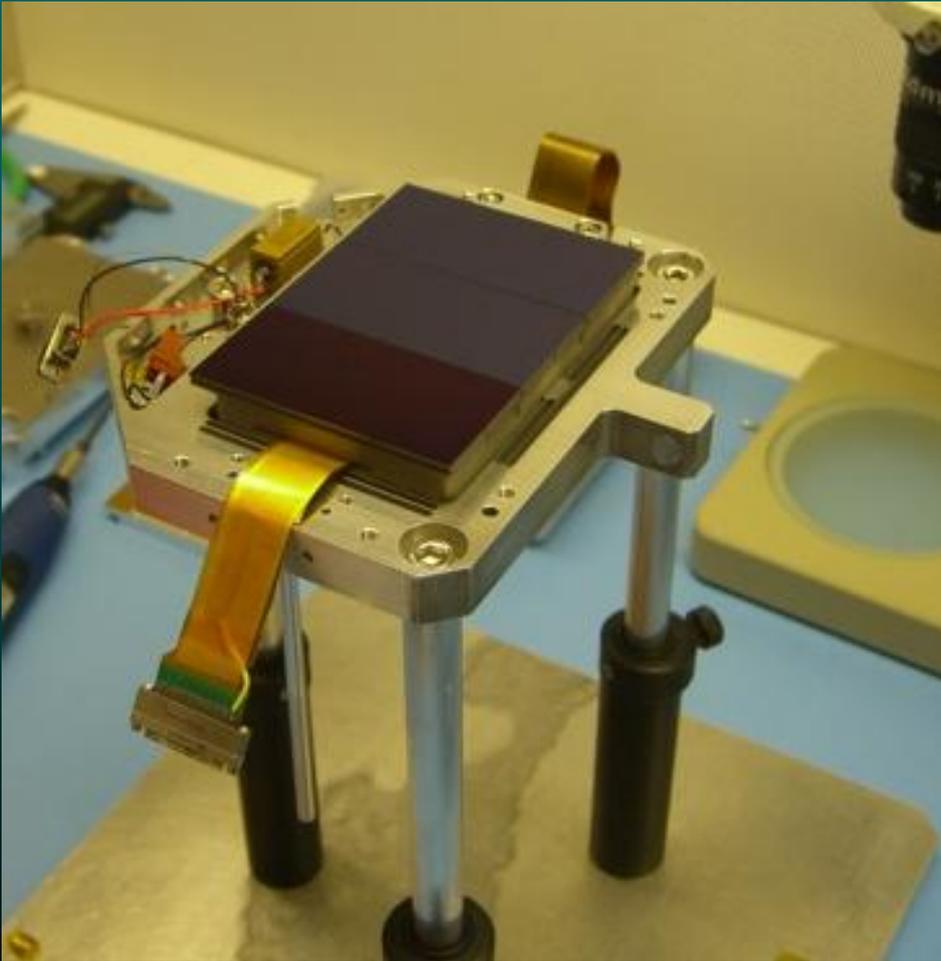


**New Deep Depletion E2V CCDs in GMOS-N**

The E2V CCDs are now installed as an interim measure.

They offer substantial improvement over the old CCDs and were a drop-in replacement.





The Hamamatsu CCD Focal Plane Assembly has been delivered from HIA to Hilo and is being debugged. Controller issues result in higher noise than expected.

One CCD was damaged, likely by an ESD event, and we now have a contract for a replacement CCD with a new enhanced blue coating.

## \* GNIRS under regular operation

- \* Some enhancements/fixes planned for this summer at GN
- \* Lenses, array rotation, one unreliable mechanism

## \* GHOS (Gemini High-resolution Optical Spectrograph) started

- \*  $R \sim 40K$ , fiber-fed or Cass-mounted
- \* Simultaneous  $\sim 370-1000\text{nm}$
- \* 3 teams proposing designs (due May, 2012)
- \* Nominally for Gemini South

- \* Gemini Remote Access to Espadons
- \* R~30 – 40K; ~600 – 1000nm coverage
- \* Excellent performance above ~600nm  
(predictions show better than Keck  
HIRES)



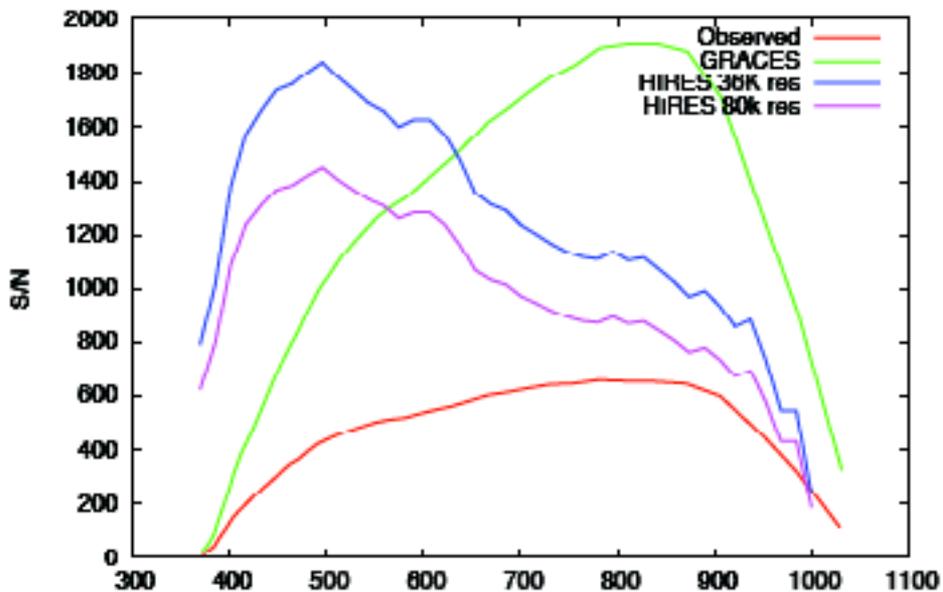
# GRACES

## Performance

Developed quickly in a test phase; scheduled for observations in 2013

Object + Sky

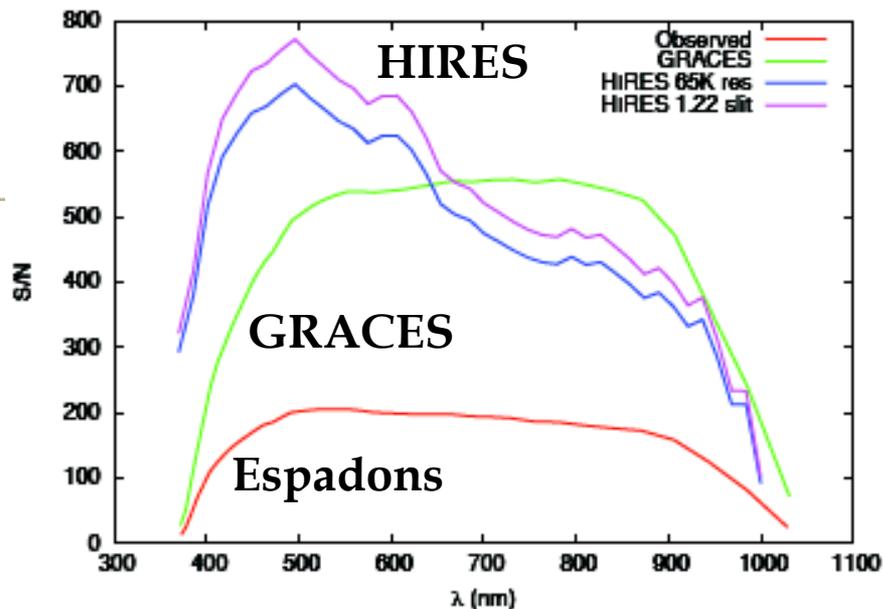
HD27697  
Star-only; R = 80K; V = 3.76; Texp = 30 s



Object Only

Will make a decision later whether or not to make it a facility-class capability

HR5501  
S+S; R = 65K; V = 5.7; Texp = 30 s





**GPI with all components undergoing integration at UCSC**

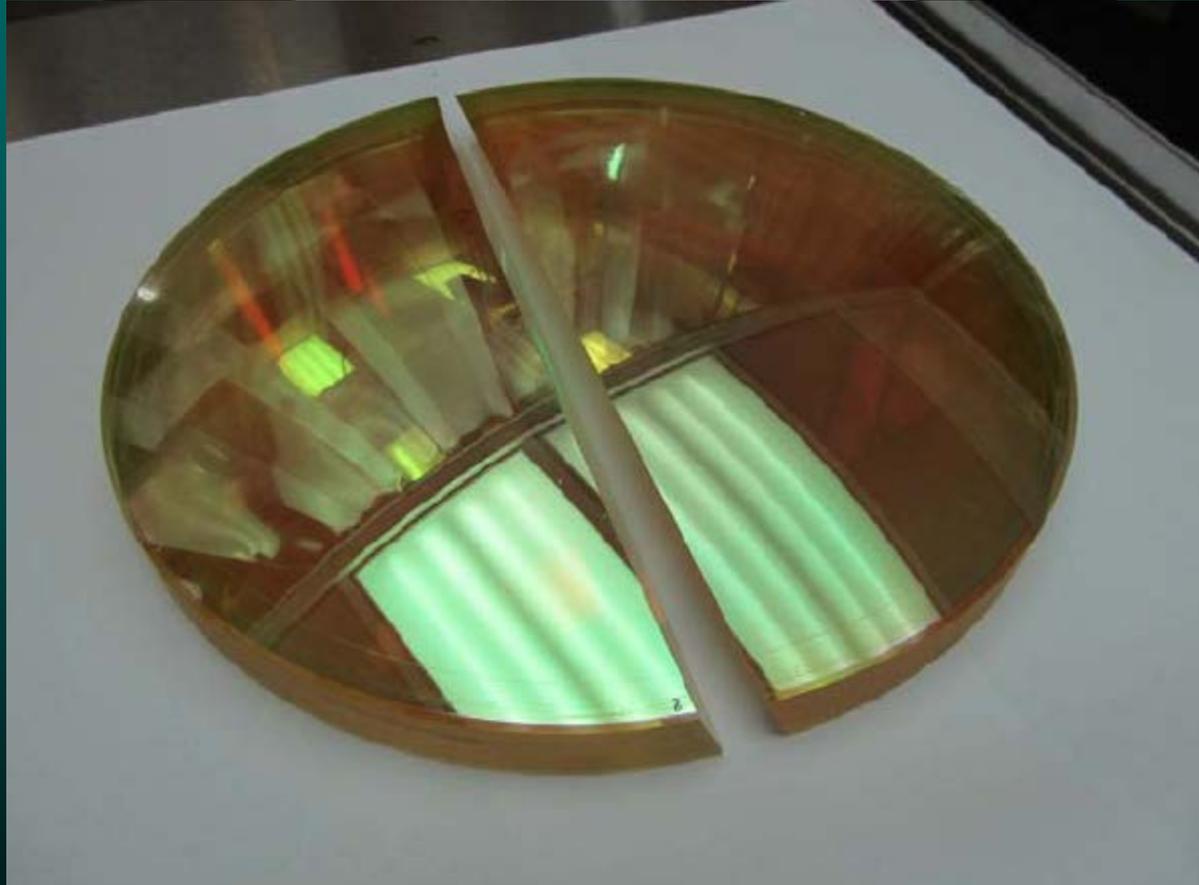
- \* Significant rework at GS
  - \* Replaced detector
  - \* Reworked nearly all mechanisms
  - \* Installed late-arriving grism
  - \* Science verification observations announced earlier this year
- \* Breaking news update:



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## *F2 Breaking News*

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**Broken lens due to improper mounting scheme.  
Strange image taken during recent on-sky calibrations.  
Likely 5+mo delay. Other lens mounts under review.**

- \* Long Range Instrumentation Plan  
Development Process is under construction
- \* 4 instruments + AO is still the baseline plan
- \* Consolidation of Mid-IR at one site likely
- \* GIROS (an x-shooter like instrument) is one option under consideration for future
- \* GNAO meeting this June at HIA
- \* Gemini Users Meeting, San Francisco, July 2012

- \* 8 nights are being exchanged between Gemini and Subaru in 2012A.; 3 and 6, respectively in 2011A and B.
- \* Oversubscription ~6 for Gemini users on Subaru and ~3-4 for Subaru users on Gemini

- ✳ Publications from exchange program may be a bit low (one paper for every 4 nights; 2 years after observations)
- ✳ 21 exchange nights in 2009-2010
  - ✳ Subaru on Gemini: 5 since program began
    - ✧ Cenko et al., 2008
    - ✧ Fujiwara et al., 2009
    - ✧ Kajini et al., 2009
    - ✧ Tanaka et al., 2009
    - ✧ Kawara et al., 2010
  - ✳ Gemini on Subaru: 6 since program began
    - ✧ All published in 2011 or 2012

- \* Are we missing publications?
- \* Are data hard to reduce/analyze?
- \* Are they part of larger programs that take more time to conclude?

**How can we help?**

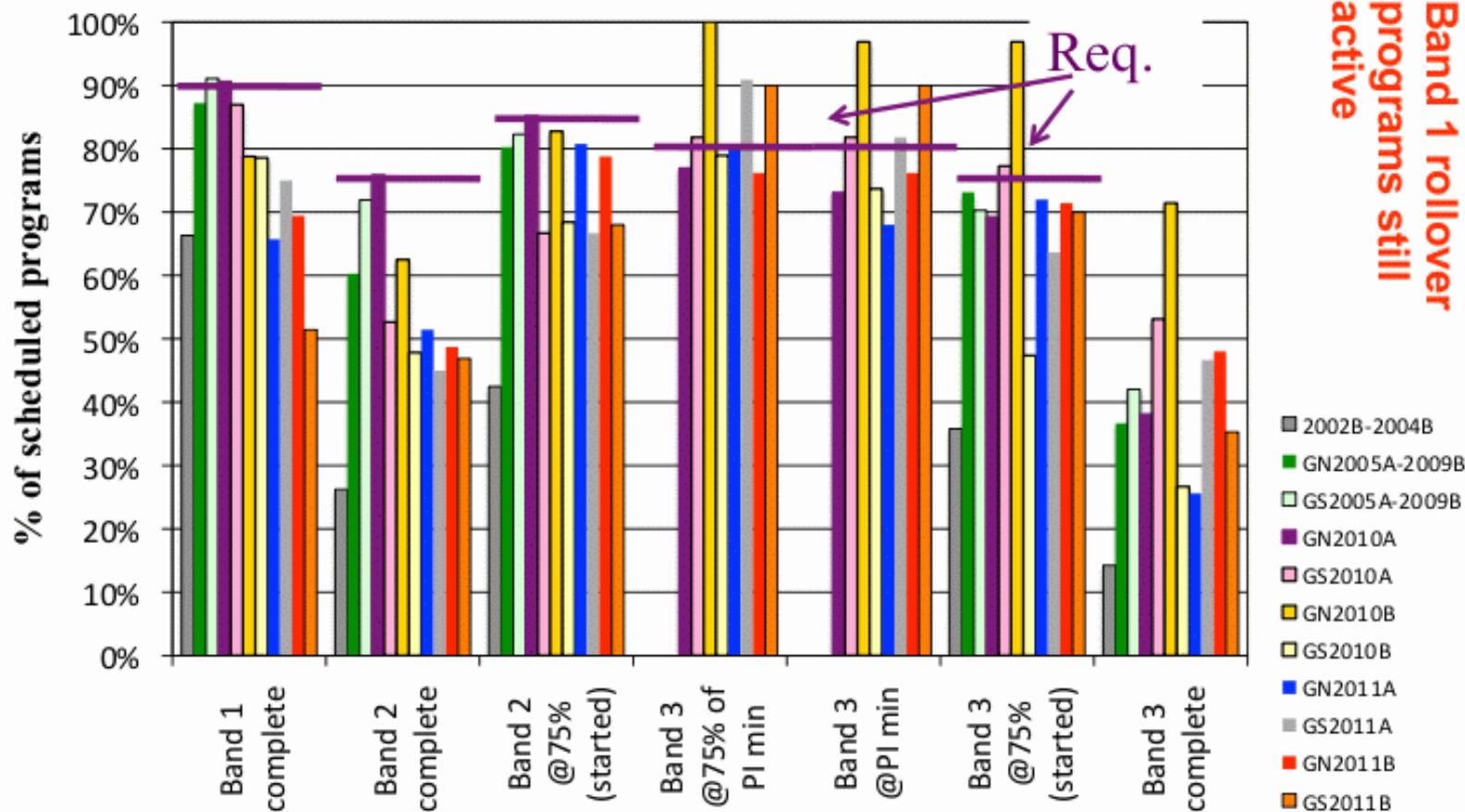
- \* There is a new Time Exchange MOU being reviewed now
- \* Subaru time allocation is same as Gemini partners
- \* Subaru users have identical\* access to Gemini as do partner country members
- \* Gemini users get full access to Subaru as do any other open use user

\* *Almost. Changes for very low # of exchanged nights.*



# GEMINI OBSERVATORY

## Queue Completion





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# *2011B Time Usage*

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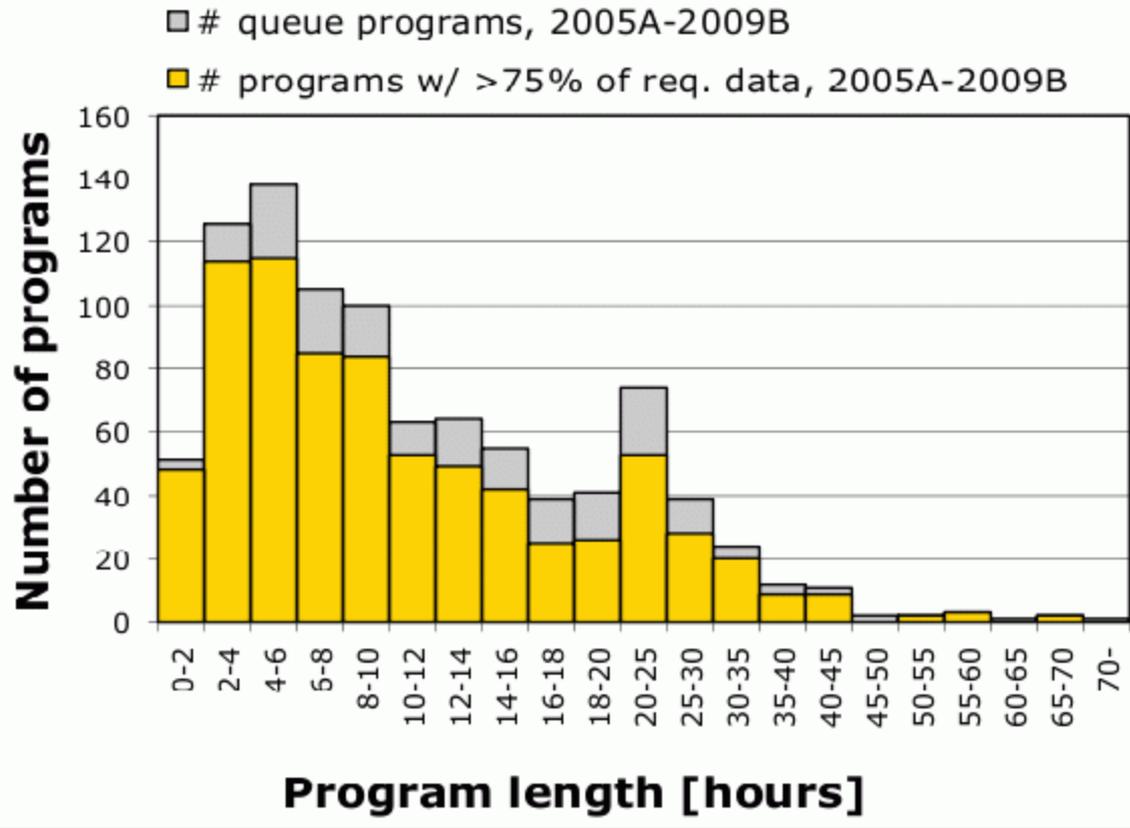
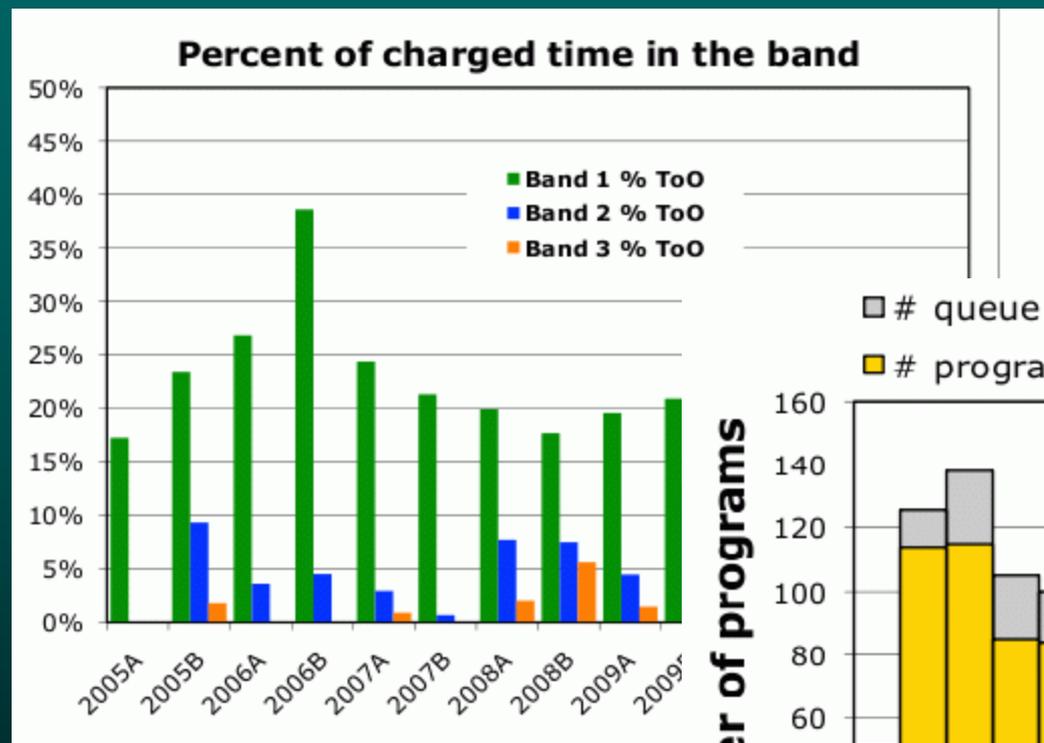
## Gemini North

* Science	59%
* Eng+Comm	3%
* Faults	4%
* Weather	29%
* Shutdown	4%

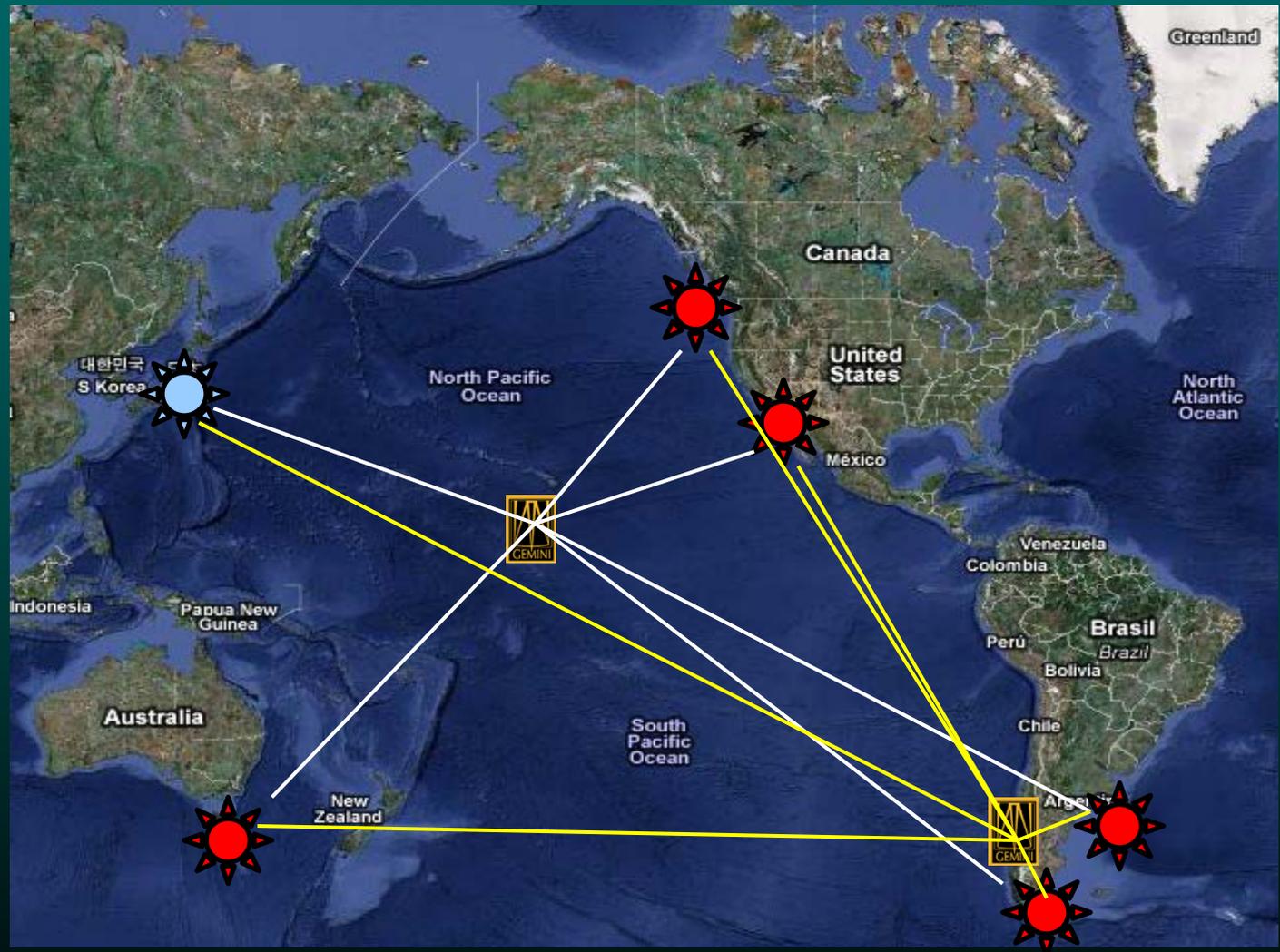
## Gemini South

* Science	54%
* Eng + Comm	20%
* Faults	3%
* Weather	15%
* Shutdown	9%

Targets of Opportunity  
 Count for ~20% of Band 1



Program lengths vary widely. Even longer programs occur over multiple semesters.



Gemini is still open for and interested in future collaborations.





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# Gemini Instruments

