

1 PROGRAM MANAGEMENT OVERVIEW

Project	Work complete	Duration complete	Status	Comments
FLAMINGOS-2	5%	10%	Behind-schedule on some secondary work packages (like OIWFS).	project was on-schedule and reaching System Verification stage in February when the main L1 lens fractured. Project is now re-baselined for acceptance on telescope completed in January 2013.
GeMS	70%	75%	On-schedule	Phase 6 of technical and science commissioning
GMOS-N CCD	NA	NA	On-schedule	project re-baselined after E2V CCD project completed in December, now reworking the whole schedule for the Hamamatsu CCDs. Acceptance on telescope schedule for March 2013. On schedule.
GPI	NA	NA	On-schedule	overall project tracked at UCSC is about 90% complete (since initiation in 2006) . On schedule for delivery at telescope in 2013Q1.
GHOS	18%	28%	Behind schedule on producing revised Gemini ICDs.	Conceptual Design proceeding on plan
GRACES	17%	28%	Behind schedule	Delays in optical fiber purchase.
A&G-2	NA	NA	Behind-schedule (+2 months aprox) compared to estimates of October 2011.	project is being re-baselined and is suffering from lack of resources and can't ramp-up properly due to other priorities, in particular F2 and GeMS.

2 PAST/CURRENT PROJECT ACTIVITIES

- **FLAMINGOS-2**
 - Technical and science commissioning was successfully done in December 2011 and January 2012. Call for SV was ready to go out early February. First multi-object spectra obtained, see at <http://www.gemini.edu/sciops/instruments/flamingos2/?q=sciops/instruments/flamingos2>
 - Damage (fracture) found on the largest lens forced an unexpected long shutdown. See at <http://www.gemini.edu/node/10351>
 - Lens escalation activity (root cause analysis etc...) was completed early April with the help and guidance from external reviewers from ANU, NOAO, University of Montreal and Sandia National Laboratories.
 - First new lens (a second spare is also on production line) is being fabricated and delivery is expected early June. Opto-mechanical mounting is being reviewed to increase safety margins.
- **GeMS**
 - Commissioning runs have been happening monthly since last November
 - Focus is given to improvement of performance, stabilization of sub-systems (BTO, laser, Canopus AO bench,...) and their reliability, cross-training between AO scientists and SOS for operations.
 - After a failure of a GSAOI cool-down in March, GeMS was tested with GMOS, given outstanding results (see <http://www.gemini.edu/node/11804>)
 - Acquisition time to start a science observation is currently between 12 and 20min
- **GMOS-N CCDs**
 - DD E2V CCDs operating, see <http://www.gemini.edu/sciops/instruments/?q=node/10004>
 - Deliveries (Hamamatsu CCDs, focal plane array, controller, software, and documentation) have been delivered by HIA and accepted (December 2011)
 - The CCDs and controller have been characterized in the lab and efforts to reduce the read noise have begun
 - A recent external review of the noise reduction process supported our efforts and resulted in an 8-item action plan being implemented now.
- **GPI**
 - IFS integrated into instrument in January
 - IFS pupil image and first spectra taken in February
 - System characterization started in March and first end-to-end contrast ratio measurement taken on March 31 (see pictures in June 2012 GeminiFocus newsletter)
- **GHOS**
 - Midpoint visits to each team completed with impressive progress all the way around.
 - Continuous interaction with teams, providing technical answers to their questions and concerns.
- **GRACES**
 - Final optical design iterated and optical fiber purchased. Resolution is ~55K in star-only mode and 32-33K in the star+sky mode.
 - Ongoing design for image slicer in ESPaDOnS and injection module in GMOS
- **A&G-2**
 - Top-level science requirements being gathered
 - Feasibility study about GCAL packaging into A&G-2
 - Ending feasibility study about Science Fold module compatibility with future AO systems (study started in October 2011)

3 COMING PROJECT ACTIVITIES (next quarter)

- **FLAMINGOS-2**
 - Critical design for the new L1 lens cell, FEA analysis and thermal testing with old lens
 - New lens delivery
 - Detector fanout board improvement (parallel activity to reduce thermal risk to array)
- **GeMS**
 - Last 2 commissioning runs in April with targets selected from community, see at <http://www.gemini.edu/sciops/instruments/?q=node/11729>
 - Planning and execution of winter shutdown activities (May-September)
- **GMOS-N CCDs**
 - Beginning implementation of identified noise reduction solutions
 - A new comprehensive project plan with updated end dates will be produced in April
- **GPI**
 - Sub-system mitigations period preparation of acceptance stage readiness review
- **GHOS**
 - Conceptual-Design Proposals due 14 May 2012.
 - CODR committee has been formed (pending conflicts of interest) and the design review meeting is currently planned for 30May-1Jun12.
- **GRACES**
 - Optical fiber testing and continuation of opto-mechanical design for slicers and injection module
- **A&G-2**
 - Finalize science and sub-systems requirements, prepare material for Request for Proposal phase

4 OTHER DEVELOPMENT TEAM ACTIVITIES

- **Joint work with Gemini STAC**
 - Received 8 white papers for GIROS, see <http://www.gemini.edu/node/11725>
 - Designing an instrumentation Long Range Plan definition process to converge by November 2012 on future capabilities (2020)
- **Gemini-North AO workshop**
 - Organized jointly with HIA and University of Victoria to discuss science cases and observational technique options for the future AO platform at Gemini-North (successor of Altair), see at <https://www.astrosci.ca/gnao2012/Home.html>
- **Gemini Users Meeting**
 - We are working to produce an agenda for the Users section of the coming Gemini Users Meeting. We expect at least one half-day session on GHOS and GRACES capabilities and science and one half-day session on Gemini long range instrumentation plan development