

GPI Review Committee: Final Day Statement

The GPI Pre-Delivery Acceptance Review Period commenced on the 8th July and concluded on the 19th July 2013. Eleven members of Gemini participated in the review along with two external reviewers. The formal two day sit-down review was chaired on the 16th and 17th July by Stephen Goodsell.

The Gemini Review Team, on behalf of Gemini Observatory, would like to acknowledge the extraordinary amount of effort and perseverance leading up to this review by the entire extended GPI team. Reaching this major milestone is a tremendous achievement...

CONGRATULATIONS

The observatory is extremely thankful for the special collaborative relationship forged over the last few years. We recognize that the biggest strength of this project is its team. GPI is a highly technically challenging instrument. The project reaching this stage is a reflection on the dedication, expertise and enthusiasm each individual member brings to the project.

For this specific review, additional acknowledgement should be given to Bruce Macintosh (Principal Investigator), Les Saddlemyer (System Engineer) and Kayla Hardie (Gemini System Tech & Project Assistant) for bringing together all of the required documentation, especially the Acceptance Test Report, Acceptance by Design/Inspection Report, Gemini Responses, Telescope Integration Plan and Verification & Commissioning Plan. But truly, it is a team effort... The efforts of the core team conducting the tests and the Gemini Reviewers reviewing the test reports and then interacting over the review period have been valuable in understanding the current state of the instrument and preparing for the future of the project ...

CONGRATULATIONS AGAIN!!!

The GPI Review Team was charged with answering three specific questions:

1. Should Gemini approve the transportation of the instrument to Gemini South?
2. Should Gemini approve the post delivery plan?
3. Is Gemini ready to receive the instrument?

This statement provides an answer to those questions and provides brief details. A complete report will be circulated to the GPI Team on the 26th July and a meeting will be scheduled afterwards to discuss the details of the report and follow-on steps.

Scot Kleinman (Gemini Head of Instrumentation and GPI Project Sponsor) was given the authority and charged to make the final decision on all matters related to the review.

Should Gemini approve the transportation of the instrument to Gemini South?

It is the unanimous opinion of the entire thirteen member review panel that GPI SHOULD be transported to Gemini South as presented in the baseline plan... I.e. 5th August 2013

Furthermore, Scot Kleinman (Project Sponsor) approved the decision to ship the instrument to Gemini South.

CONGRATULATIONS.... GPI has permission to leave the building...

It is acknowledged that GPI is a schedule-driven project and although there are a number of shortcomings and outstanding issues that the project team *must* address, none are showstoppers and at this stage more project progress can be made at Gemini South than can be made at UCSC. Greater risks can be retired at Gemini South than they can be at UCSC. Therefore each team member concluded to transport now.

Les Saddlemyer (6 month placement) and Naru Sadakuni (Gemini employee) joining the GS team is a great comfort to Gemini. They will provide continued knowledge transfer and assist with integration. Les will have a technical leadership role which will be vital given the required integration, instrument optimization and required outstanding remediation work.

Additional comments (which will be expanded in the report)

- **IFS Remediation:** It was decided **NOT** to open the IFS lid before shipping but to conduct the mechanism warm tests (prior to shipping) on the L frame only.
- **Telescope Simulator:** Gemini wants to transport the telescope simulator and will request official permission to do so.
- **Requirement shortcoming / Science impact:** The review panel will request additional information regarding the impact on science given the known state of the instrument. Actions and follow-up work related to each requirement that did not pass will be included in the report.
- **Data Reduction Pipeline:** CONGRATULATIONS Marshall for the state of the DRP software and documentation. GPI will arrive at GS in a strong position in this area.
- **Software:** CONGRATULATIONS Jennifer/Dave/Jason/Thang for the state of the subsystem software and documentation. GPI will arrive at GS in a good position, however the stability of the software and the IFS overheads remain areas of concern.

Should Gemini approve the post delivery plan?

At this point in time the GPI Review Committee felt that the post delivery plans couldn't be accepted.

Further work is required on the TIP and the VCP. With the instrument in transit to the observatory both the GPI Contractors and the Gemini South team **must now** focus their efforts on the post-delivery plans. A number of decision points have been requested.

Additional comments (which will be expanded in the report)

- General
 - Contingency is low (~\$30k), Scot will seek approval to move the Shipping + Insurance budget from the GPI reserve account to the GPI Gemini internal account, freeing up \$150k.
 - Majority of this fund would be protected for addressing future unknowns during the post-delivery telescope integration and test stage, (i.e. dealing with affects of vibration, etc)
 - Some of the additional funds **would be** used to increase Daren Dillon's time at GS during this stage for knowledge transfer. UCSC is encouraged to protect as much of its existing funds as possible for this activity.
 - Given Les is away, Stephen will take ownership and responsibility for progressing the TIP until he returns (interacting equally with the contractors and GS team)
- Telescope Integration Plan:
 - Further detailing is required in some areas
 - Resourcing and scheduling given Gemini's constraints is required
 - **Dedicated TIP Review set for the 19th August 2013** (Doc due on the 12th)
 - Decision to unpack instrument will be based on passing review
- Verification and Commissioning Plan:
 - Requires detailing (i.e. procedures, priorities, weather conditions, targets, etc)
 - VCP should be resubmitted by **15th August 2013** (driver OPSWG meeting + 14A)
 - Once passed, Gemini will negotiate VC follow-up contracts.

Is Gemini ready to receive the instrument?

At this point Gemini felt that they aren't ready to receive the instrument. However Gemini believes there is sufficient time to complete remaining internal tasks.

Further work and coordination at Gemini is required internally for the observatory to be fully prepared. Continued consultation with the external GPI team will be valuable.

Gemini will work towards a two stage internal Readiness Review:

- Stage 1: Review equipment, facilities, expected resources... July
- Stage 2: Review TIP, schedule, risk, constraints... post 12th August 2013