

GNAOI Proposers Conference Q&A

October 04, 2019

The following questions were asked at the conference. The written answers below may include some clarification to the answers given at the conference.

Project Summary

Q: The documents on slide #28 are related to after the Preliminary Design?

A: Yes, these are the documents that the selected teams deliver at the end of the Preliminary Design Stage, not in this Proposal Phase. These are: NAOI-01 Project Management Plan, NAOI-02 System Engineering, Management Plan, NAOI-04 Science Cases, NAOI-05 Concept of Operations Document (ConOps), NAOI-06 Requirements Document, NAOI-10 Preliminary Design Document, NAOI-11 Instrument Interface Control Documents, and Contract and SoW Amendment Exceptions.

Q: Are you selecting only one team?

A: No, we intend to select 2 or more teams to do the Preliminary Design Stage Work. See GNAOI-01 p2 Section 1. f)

Q: Can you provide us with any information in terms of the schedule and budget for GSAOI? Did GSAOI meet similar requirements as laid out for GNAOI?

A: GSAOI project duration from the end of the conceptual design stage till the delivery to Gemini South was approximately 3 years 3 months. Expenditures for that 3.25 year duration starting in July 2003, plus the follow-on post delivery acceptance test and commissioning, were approximately US\$3.2M.

Q: Has anyone delivered an instrument on this timescale?

A: Because the GNAOI capabilities are very close to those of GSAOI, and we will make the GSAOI design documents available to all teams selected to complete the Preliminary Design, we expect the GNAOI Design Phase to be much shorter than for previous instruments, and thus should fit into our planned schedule.

The GNAOI schedule and cost are higher priorities than any additional capabilities. We are looking for a straightforward imager that will address the baseline criteria.

Q: What happens if the March 2023 deadline is not met?

A: Correction: This date was a typo. It should be **March 2024**. GNAO needs GNAOI to start its on-sky testing, so the two schedules must stay in synch. Currently, that means GNAOI needs to be ready to begin on-sky commissioning by March of 2024. If GNAO is delayed, then the timeline for GNAOI may also extend.

Q: What is the timescale of the GNAO AO Bench (AOB) optical design? When will we know about the parameters and interfaces of the GNAO system?

A: We will provide selected teams with the GNAO Conceptual Design documents. The GNAO Preliminary Design Stage is planned to end early 2020. The AOB and LGSF work packages will be completed by the end of GNAO Preliminary Design Stage.

The GNAO Review Committee agreed that the aggressive timeline for GNAO makes it difficult to reach our initial scope. We are therefore reevaluating the GNAO triple constraints (scope, cost, and schedule) and may move some GNAO work to beyond the end of our NSF award date of October 2024. The team intends to complete this plan in the coming months and we will inform GNAOI teams of any relevant changes to the GNAO plan.

Q: Are you considering purchasing the HAWAII-4RG detector in advance?

A: Yes, Gemini intends to procure the HAWAII-4RG early in the Preliminary Design stage. See GNAOI-01 p3 Section 1. p)

Science Cases and Requirements

Q: Does throughput requirement #11 include filters or are you assuming no filters?

A: This includes the filters.

Q: Does requirement #8 apply to the F/16 or F/32 beam?

A: This applies to the F/32 beam.

Statement of Work Review

Q: Will you explain how you will do the downselect of the Preliminary Design?

A: We will have the criteria available at the start of the Preliminary Design (January 2020). The selection criteria will reflect the GNAOI Guiding Principles.

Q: Will you take other criteria into account other than the listed evaluation criteria?

A: The set of priorities are listed in GNAOI-02 (Instructions to Offerors page 17-19), but note that selection criteria are not necessarily confined to those principles.

Q: There are only high-level requirements listed here: mass, calibration time, service time are missing. Do the teams need to provide these and how will this affect how we select the teams to proceed with the Preliminary Design?

A: We are not asking for the teams to provide additional requirements in their proposals to be selected for the Preliminary Design Stage. We do expect teams will develop the requirements further in the Preliminary Design Stage itself. We expect teams to provide the “missing” requirements as a technical description of their proposed instrument. Requirements development and specification is part of the competitive process. Additional requirements can be found in Gemini’s ICD and Specifications documents (these are not summarized in the SoW or in this presentation).

Q: Will the downselect be guided by an independent review committee or will the selection be made in-house?

A: See GNAOI-02 p17. We will organize an Evaluation Panel to review proposals and to recommend to Gemini a selection of the Preliminary Design teams in early 2020, and the post-Preliminary Design team later in 2020. This competition and downselect process is required for NSF funding..

Proposal Content

Q: Do all the items on [slide #55 of the presentation](#) (section: Proposal Content - Project and Technical Management) refer to the Preliminary Design Stage or the entire project?

A: See GNAOI-02 pp12-13 Sec III, 1. The Short answer is Preliminary Design Stage. Slide 55 contains content we would like for you to include in your proposal to complete a Preliminary Design of the Imager. While most of the bullet points on this slide also contain information that would be appropriate to use in the evaluation for the downselection at the end of the Preliminary design, we only expect you to describe details relevant to the preliminary design stage, e.g. the WBS section need only describe how you break down the preliminary design work. During the Preliminary Design Stage, we expect teams will provide greater detail on the cost, schedule, budget, instrument design, WBS, and requirements Post Preliminary Design work.

Q: What are Gemini's oversight requirements for this project (in terms of level of effort - time, resources, travel)?

A: See GNAOI-04 p9 Sec. 5.3. In the Preliminary Design Stage, we aim to keep oversight at a minimum as we would like the teams to be able to focus on the design work. Also, as this is a competition, there will be little direction from Gemini. Oversight during Preliminary Design Stage as stated in the provided documents include: monthly meetings of up to 1 hour, monthly reports, a kickoff meeting at contractor's facility within 2 weeks of contract approval, and a final review at end of PD stage in Hilo, Hawaii. Oversight during Post Preliminary Design Stage (after downselect) will be detailed in the Post Preliminary Design Draft SoW at the PD Kickoff meeting (if not earlier) so that teams can highlight to Gemini concerns and request clarifications.

Evaluation and Selection

Q: Will the least expensive design obtain the highest mark in terms of the cost evaluation criteria?

A: The selection criteria are listed in GNAOI-02 (pages 17-19) and relate to the selection of teams for the GNAOI Preliminary Design Stage only. The cost criteria includes other components beyond the absolute instrument cost.

Q: Missing in the Evaluation and Selection Process criteria is instrument performance?

A: You are correct. By the proposal date, we do not expect that you will have determined significantly different or additional performance for the instrument beyond the high level requirements we have provided. Teams are encouraged to develop or add to the current requirements during the Preliminary Design Stage Work.

Q: Does Gemini plan to have a fixed price contract after Preliminary Design (to build the instrument)?

A: In the Post Preliminary Design SoW and contract provided on or before the PD kickoff, AURA will include our proposed cost model which currently is fixed price. Teams always have the ability to submit objections / suggestions that we will aim to resolve.

Q: Will Telescope Time / Observing Time be awarded to team downselected for the instrument build?

A: See GNAOI-01 sections 1.q-r on page 3.

q) Gemini intends to award up to 4 nights of telescope time to the Post-Preliminary-Design selected team for meeting schedule milestones during the Post-Preliminary-Design work.

r) The Principal Investigator and Project Scientist of the final Post-Preliminary-Design downselected team will be invited to join the GNAO science team and will have the opportunity to submit a proposal for a science campaign with the instrument that will highlight the instrument's capabilities and scientific potential early in its lifetime. Gemini expects the resulting campaign will involve other team scientists beyond the Principal Investigator and Project Scientist.