3.2.2 Large GO Programs

Large GO Programs are programs that request 100 orbits or more.

Large Programs should lead to a clear advance in our understanding in an important area of astronomy. They must use the unique capabilities of HST to address scientific questions in a comprehensive approach that is not possible in smaller time allocations. Selection of a Large Program for implementation does not rule out acceptance of smaller projects to do similar science, but target duplication and overall program balance will be considered.

Proposers submitting Large Programs are asked to include additional technical detail in the "Description of the Observations" section to provide information on the scheduling aspects of their program. Investigators interested in proposing Treasury/Large Programs are encouraged to consult the Treasury/Large Program User Information Report (available on the Cycle 16 Announcement Page) and the Large Program Web Page, which provide general information on how these programs are scheduled and summarize important technical and scheduling information.

Some Large Programs require substantial pipeline processing of their data to generate the final products. Examples are large mosaics for surveys, or co-additions of many exposures in deep fields. There may be situations where it would be advantageous to the PI to use the data processing infrastructures at the STScI for bulk processing of observations from a Large Program. Typically, this possibility would be explored during the budget submission process. See the Archive Large Programs Web Page for a technical description of this opportunity.

Depending on the duration of Cycle 16, we anticipate selection of two to six programs in the 100-300 orbit range. For comparison, in Cycle 15 seven Large Programs were accepted for a total of 1209 primary orbits. Descriptions of these programs are available on the Large and Treasury Programs Web Page.

3.2.3 Survey GO Programs

Survey Programs, introduced in the present cycle, are designed to complement Snapshot programs in providing an opportunity for statistical astronomical projects. Like other GO programs, Survey programs are allocated a fixed number of orbits, and therefore provide guaranteed observations of a specified number of sources drawn from a larger target list. The availability of a pool of unconstrained targets is also expected to increase the overall scheduling efficiency of HST.

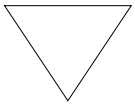
Survey programs have the following characteristics:

- Proposers request a specific number of orbits, corresponding to observing N *targets.* If the proposal is approved, the program will be allocated the requested number of orbits.
- As with Snapshot proposals, the Phase I submission requires a representative list of targets; the full target list is submitted in Phase II. Survey programs may not be used for targets of opportunity (see also Section 4.1.2).
- Proposers should submit a list of M > N targets in the Phase II stage of the proposal, where 1.5 N < M < 3N. This permits greater flexibility in scheduling observations. Survey proposals should target sources that are well distributed over a wide range of Right Ascension. Examples of programs that are not well suited to survey proposals (because they do not help improve scheduling efficiency) are surveys of targets confined to an area of a few square degrees (e.g. the LMC). or surveys confined to a few such areas (e.g. surveys of galaxies in two or three galaxy clusters). If in doubt, please consult the help desk (help@stsci.edu).
- In the case of duplications, Regular GO proposals have priority over Survey proposals, since observations of particular Survey targets are not guaranteed.
- Proposers may not assign priorities to individual targets in a survey program. Targets will be selected for execution based on available observatory resources as determined by STScI. This selection will occur as part of the normal science planning process with the other GO programs prior to the start of the observing cycle. As for all GO programs, the proposal will be deemed complete when it has exhausted the total number of orbits allocated.
- Survey proposals can accommodate multi-orbit visits for each target.
- Individual visits in a Survey proposal can be tailored in duration and/or instrumental configuration for individual targets. PIs that include visits of different durations should use the Description of Observations to explain how the the total orbit request was computted.
- Survey observations are not permitted to use any special scheduling constraints (e.g., CVZ, timing requirements, or telescope orientation requirements).

- Moving-target Survey Programs are permitted, although observations of Solar system targets interior to the orbit of Mars are not permitted. Due to the amount of effort required in implementing moving target programs, these observations ordinarily cannot be revised during the observing cycle, once the initial processing has been completed.
- Survey Programs with the ACS/SBC are not allowed.
- Survey proposals cannot request time in future cycles.
- Regular survey proposals are assessed by the review panels, in conjunction with other GO programs (see Section 6.1.1). Survey programs that request more than 100 orbits will be treated as Large Programs, and reviewed by the TAC (see Section 6.1.2).

3.2.4 Calibration GO Programs

HST is a complex observatory, with many possible combinations of observing modes and spectral elements on each instrument. Calibrations and calibration software are maintained by STScI for all of the most important and most used configurations. However, STScI does not have the resources to calibrate fully all potential capabilities of all instruments. On the other hand, the astronomical community has expressed interest in receiving support to perform calibrations for certain uncalibrated or poorly calibrated modes, or to develop specialized software for certain HST calibration and data reduction tasks. In recognition of this, STScI is encouraging outside users to submit proposals in the category of *Calibration Proposals*, which aims at filling in some of the gaps in our coverage of the calibration of HST and its instruments.



Calibration Proposals should not be linked explicitly to a specific science program, but should provide a calibration or calibration software that can be used by the community for existing or future programs.

Successful proposers will be required to deliver documentation, and data products and/or software to STScI to support future observing programs or archival research.