NASA INFRARED TELESCOPE FACILITY (IRTF)
APPLICATION FOR OBSERVING TIME (rev. 8/12/99;wdv)

IRTF USE ONLY:
APP.NO. ____________________
DATE RECVD ____________________

OBSERVING PERIOD: February 2000 – July 2000

SEND: TEN COPIES OF COMPLETED TIME APPLICATION FORM AND SCIENTIFIC CASE FOR SUPPORT.

MAIL TO: IRTF Division, Institute for Astronomy, 2680 Woodlawn Drive, Honolulu, HI 96822

DEADLINES: **1 April for August through January;** **1 October for February through July.**

* INVESTIGATOR(S) to receive accommodation subsidy (maximum two)	PI (x)	INSTITUTION AND ADDRESS	Graduate Student?
*	x		
*			

(For add'l investigators, attach additional sheet and indicate billing address)

(1) **TITLE OF APPLICATION:** (Less than 12 words):

(2) **CONTACT FOR CORRESPONDENCE AND SCHEDULING:**
TELEPHONE: ( ) - **FAX:** ( ) -
E-MAIL ADDRESS:

(3) **NUMBER OF RUNS AND SHIFTS (12 hours each) REQUESTED:**
Number of runs: Shifts per run: Total day shifts:
Total night shifts:
Total shifts:

(4) **RANGE OF ACCEPTABLE DATES** (Proposal will be rejected if these dates are unavailable).
Please clearly indicate here or in the scientific case exactly which dates and times (HST) are requested.

(5) **ABSTRACT (less than 100 words):**

(6) Scientific category:

- ☐ solar system
- ☐ long-term planetary
- ☐ long-term already approved
- ☐ extra-solar planets
- ☐ stellar
- ☐ extra-galactic
- ☐ galactic/interstellar medium
- ☐ solar

(7) PHASE OF MOON REQUIRED: Any Phase

(8) IRTF INSTRUMENTS REQUIRED:

InSb Photometers:

☐ **PRIMO 1:** J, H, K, SCVF — CVF change required: ☐ MCVF ☐ Other

☐ **PRIMO 2:** Double CVF (0.7–2.8 μm)

☐ **RC2:** J, H, K, L, L$'$, M, MCVF — CVF change required: ☐ LCVF ☐ Other

☐ **Bolometer** — Special window required: (KBr is the default) ☐ CsI ☐ KRS-5

☐ **Rotating Polarimeter** — ☐ Wire Grid ☐ HR Polaroid

☐ **SUMP**

☐ **CSHELL** (256 $\times$ 256 InSb Array High Resolution Spectrometer)

☐ **SpeX** (1024 $\times$ 1024 InSb Medium Resolution Spectrograph and 512 $\times$ 512 InSb Camera)

☐ **NSFCam** (256 $\times$ 256 InSb Array Camera)

Filters (List filters required):

☐ **Tip/Tilt** (active optics used with NSFCam and SpeX)

Dichroic (for NSFCam): ☐ 0.8 μm ☐ 1.0 μm

☐ **Other or own equipment.** Describe under (9) below.

(9) LIST ANY SPECIAL REQUIREMENTS:

(10) CRYOGENIC REQUIREMENTS FOR VISITOR EQUIPMENT: ________**Liters LN_2** ; ________**Liters LHe**

(11) LIST IRTF OBSERVING TIME DURING THE LAST TWO YEARS AND STATUS OF DATA, **INCLUDING PUBLICATIONS:**

(12) ESTIMATE HOW MANY MORE NIGHTS TO COMPLETE THE PROJECT:

(13) LIST OTHER OBSERVATIONAL APPLICATIONS TO OTHER FACILITIES DURING THIS TIME PERIOD:

(14) SCIENTIFIC CASE (Maximum of two single-spaced pages of text in 11-point type, plus one page for figures and tables. References and the Object List can take additional pages if necessary.)

(15) TECHNICAL CASE (Please give some justification for the amount of observing time requested for this proposal. Your justification should include source magnitudes (or fluxes) and estimates of the exposure times and Signal-to-Noise ratios required to meet the goals of your project. If you wish to use tip/tilt, you should discuss the availability of appropriate guide stars.
Note that proposals which lack adequate technical justification will be automatically rejected.

Object List

Object	Location	Mag	Comments
	^{h} ^{m}, $^\circ$ $'$		

GENERAL GUIDELINES FOR THE SCIENTIFIC AND TECHNICAL CASE

The scientific case for observing time should establish two things. 1) It should outline the scientific problem(s) or question(s) toward whose solution the observations are requested, and place these questions in the larger scientific context. 2) It should show how the measurements requested will be used to illuminate these questions or problems.

The technical case should demonstrate that the proposed measurements are technically feasible, given the performance of the proposed instrument(s), in the time requested. The number of target objects required should be justified. The TAC has noted that a number of applications have failed to provide an adequate technical case.

Applications should include complete lists of objects to be observed and their approximate equatorial coordinates. Applications without such lists will be rejected.

Specific points that will be helpful to include:

a) How the proposed observations relate to the applicant's previous work, and to other work in the field.
b) Why the IRTF, and its site on Mauna Kea, are particularly important or even essential for the proposed observations.
c) The spatial, spectral, and temporal range and resolution required.
d) Estimates of the signal-to-noise required and expected, and the justification for the number of nights requested.
e) The availability of appropriate guide stars, if the tip/tilt system will be used.
f) If new or unusual techniques are to be used, make clear how the observations and calibrations will be obtained.

The presentation should be aimed at someone who is not a specialist in the area of astronomy under study. A specific scientific case, rather than a broad general one, is usually more successful.

IRTF TIME ALLOCATION POLICY FOR PLANETARY ASTRONOMY

IRTF observers are reminded of two differences in policy for allocating observing time for scientific programs of special interest to NASA's Solar System Exploration Division. These changes were instituted in 1994 and remain in operation.

The first concerns observational programs specifically to search for and study planets around nearby stars. This is a relatively recent new initiative in planetary astronomy, and NASA Headquarters has requested the IRTF to give special consideration to such applications for observing time. This special consideration is *exclusively for searches for and studies of extra-solar planets,* and does not include, for example, young stellar objects, circumstellar discs, and other studies often considered under the heading of "origins of planetary systems." Applicants with such programs should tick the box labelled "Extra-Solar Planets" on the application form.

Secondly, the IRTF has instituted allocations of observing time for long-term programs *within the solar-system astronomy area.* Examples might include studies of atmospheric phenomena in support of missions such as Galileo, studies of large populations such as comets and asteroids, studies of very faint populations such as objects in the Kuiper Belt, and exploratory studies. Requests for long-term status for programs in planetary astronomy should be indicated by ticking the box entitled "Long-Term Planetary" on the application form. Such applications should include a specific additional justification for long-term status, and quantitative justification of the numbers of nights per semester and the number of semesters requested.

If a program has been awarded long-term status, the usual cover sheets (pages 1 & 2 of the standard form) are still required in subsequent semesters. In addition to a copy of the original scientific case, a progress report should be submitted in each of the following semesters. The number of nights awarded long-term status each semester will be automatically awarded, providing the TAC is satisfied by the progress reported.

If you have questions about either of these policies for time allocation, please contact the IRTF Division Chief, Bob Joseph, at 808-956-8531, or at joseph@irtf.ifa.hawaii.edu.