

NASA Infrared Telescope Facility

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Operates under a Cooperative Agreement between the Univ. of Hawaii and NASA

“The NASA Infrared Telescope Facility: Mission Support and Solar System Observations”

<http://irtfweb.ifa.hawaii.edu/>

All funding for operations come from the NASA Planetary Astronomy Program. Currently \$4.1M/yr.

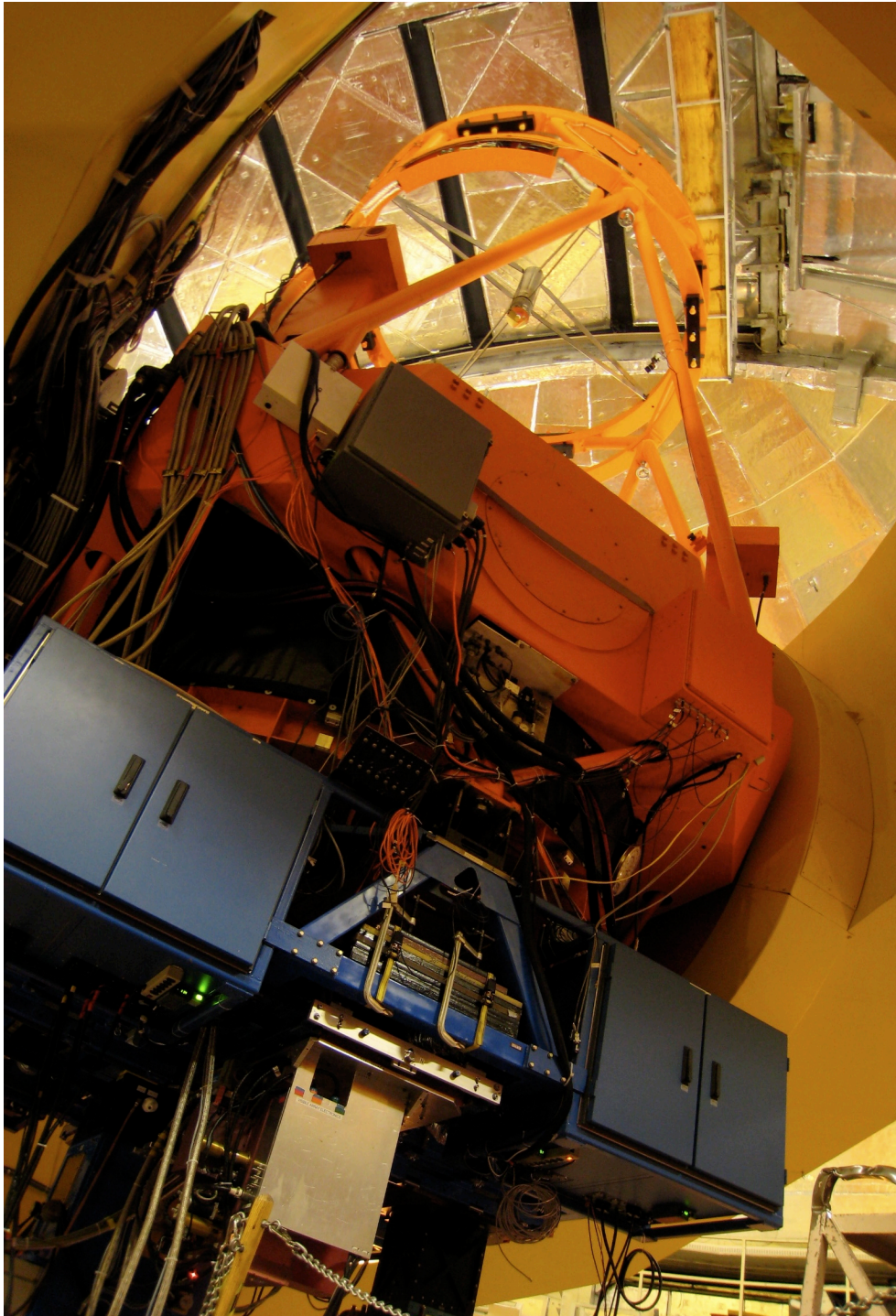
Other funding sources:

NSF ATI and MRI programs: \$2.8 M (2009-2013)

NASA HQ: \$1.2 M (2009-2013) for MRI contribution

UH: \$270 K (2009-2013) for MRI contribution

NSF Visitor Support: \$650 K (2006-2011)



Current Instruments:

SpeX: 1-5 μm spectrograph

**CSHELL: 1-5 μm high-res.
spectrograph**

NSFCAM2: 1-5 μm camera

MIRSI: 5-20 μm camera/spec.

**Visitor Instruments: TEXES,
HIPWAC, BASS, CELESTE, POETS**

New Instruments:

**Upgrading SpeX and
NSFCAM2 w/ new arrays and
next generation array elec.**

**New facility instrument
under construction:
cross-dispersed spec.
with immersion grating.**

New secondary mirror.

- 50% of the time for planetary science and 50% for astrophysics.
- About 20% of the proposals to the IRTF are connected to Spitzer observations. Primarily in near-IR follow up observations. Might expect similar demand from SOFIA in long run but could be more “interactive”, such as simultaneous observations.

Uniqueness for NASA Missions and Planetary Astronomy:

- 
- **Timely ground-based observations in support of planetary missions.**
 - **A dedicated facility for planetary astronomers.**
 - **Training students and a platform for new instruments.**

Flexible scheduling and remote observing:

- **Observing periods as short as 1 hour.**
- **Multiple short observations possible with remote observing.**

Possible SOFIA connection: Can accommodate time critical observations with SOFIA.

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Priority on time critical planetary observations:

Unexpected mission requirements.

Required solar phase angle, specific planetary features, new comets, new Near-Earth Objects, occultations, daytime observations of comets and planets.

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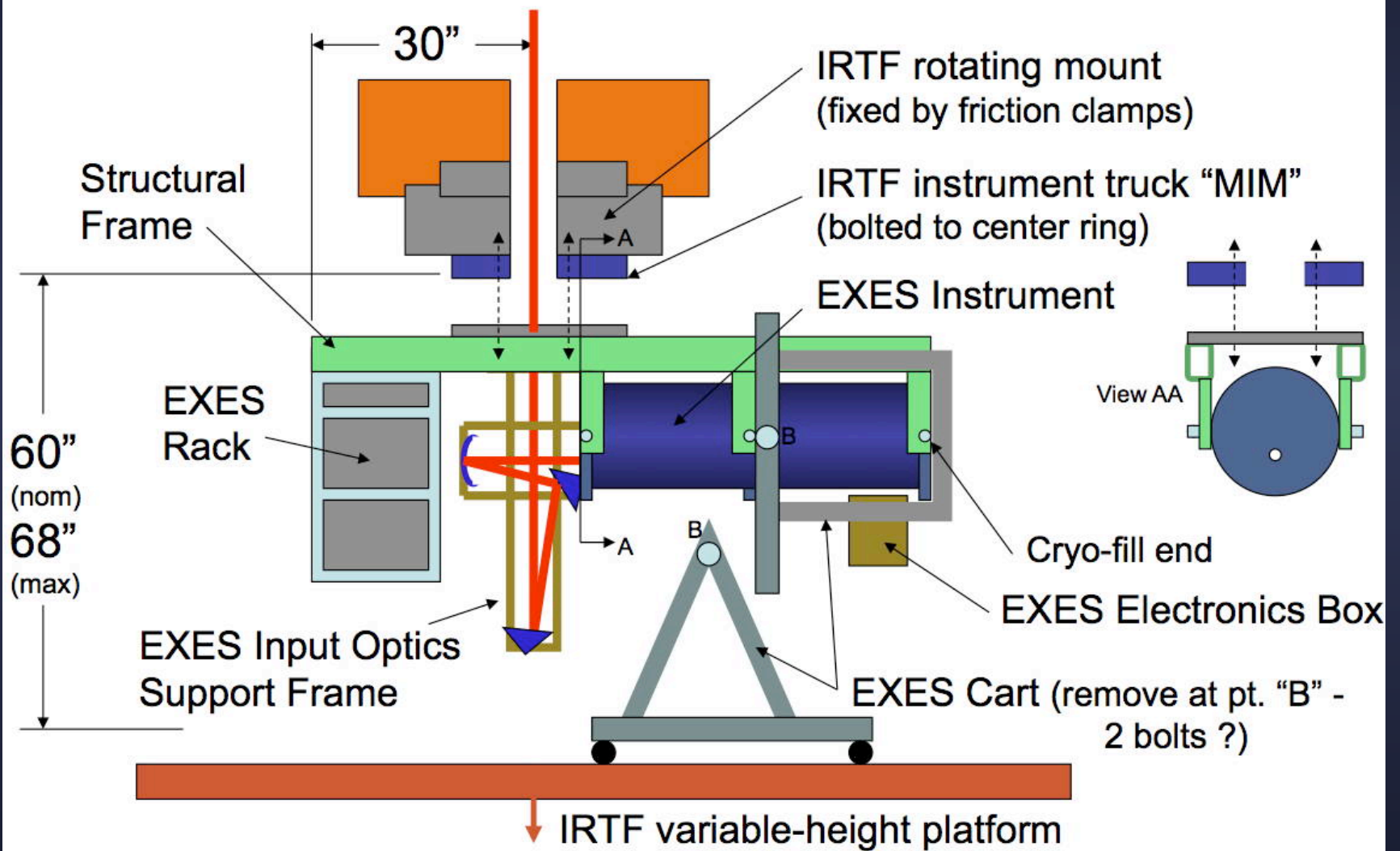
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Classical observing and visitor instruments welcomed. Remote observing expands opportunity for training students.

Possible SOFIA connection: Can accommodate some SOFIA instruments. EXES is good example.

EXES IRTF Installation Concept Sketch - v 2.1



Advantages for EXES team

- Richter wants avoid losing SOFIA time.
- Thinks demonstration on IRTF with scientific results will help with greater demand from the community.

Currently planning for 2 runs before going to SOFIA.
First one in Aug. 2010.