SSpot Pocket Guide

This is a quick guide design to help understand SSpot and what it offers.

SSpot – SOFIA Phase II Planning Observations Tool

SSpot is a client-server multi-platform software tool designed to be the only tool you need to plan your SOFIA observations, submit observing proposals, and modify approved observing programs, if necessary. In SSpot, you can select one of the eight observing modes by choosing an Astronomical Observing Template (AOT). By filling out the template with the desired observing parameters (target position, exposure time, dithers, etc.) you create Astronomical Observing Requests (AORs). You can use SSpot to stimate the infrared background around your target. You can overlay an AOR to visualize just how SOFIA will execute your observation. After completing your planning you will use SSpot to submit your observing proposal to the SOFIA Science Center.

Basic Components of SSpot:

1. 

File I/O. Download AORs from DCS, will create new AORs from proposal if no AORs are found.

2.  File I/O. Read/write AOR files to local disk. AOR files in plain ASCII format. Also can read in formatted fixed single target list.

3. 

AOR Management. Delete, copy, and modify AORs.

4.  Target Information. Various coordinate systems available. SIMBAD /NED and NAIF Name/ID name resolution.

5. AOTs. Fill in Templates to create AORs.

6. Tools. Replicate targets and AORs. Add observing constraints to your AORs. Recalculate resource estimates (total durations) for AORs.

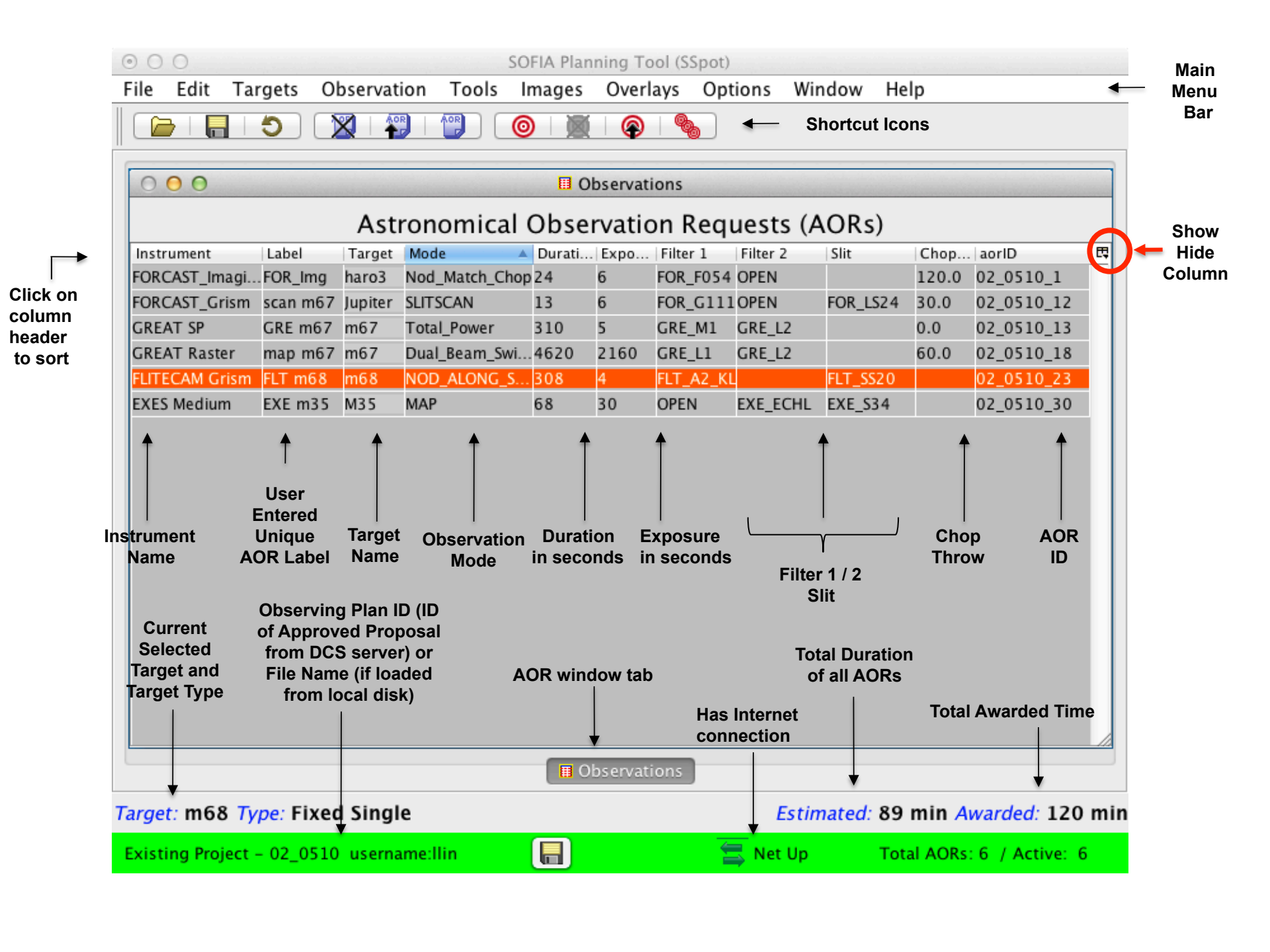
7. Proposal Tool (under Tools). Fill out the necessary coversheet information, load the AORs into SSpot and submit your SOFIA Observing Proposal using this Tool.

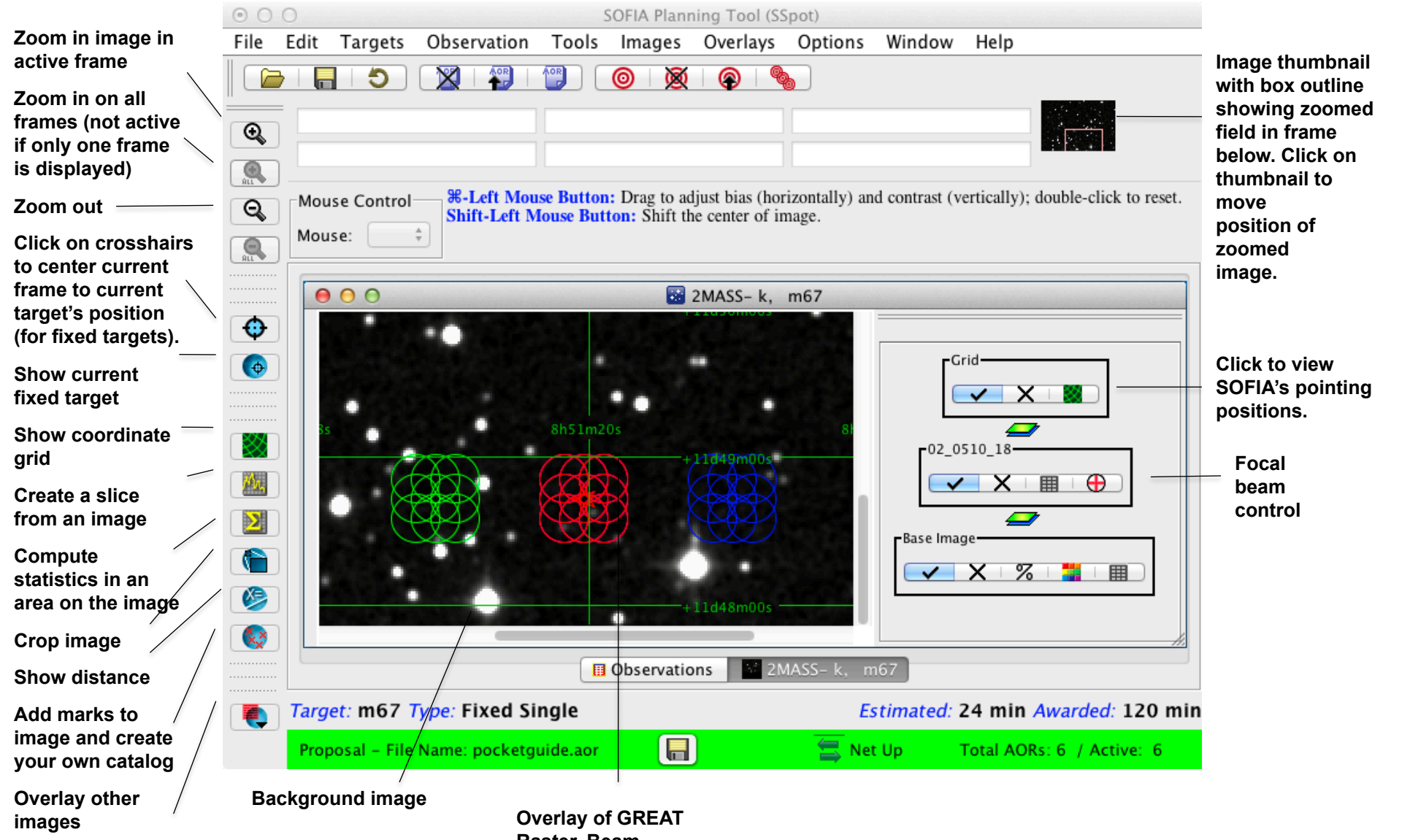
8. Visualization. Download and display images to estimate the infrared background and then overlay an AOR. See how SOFIA will execute the observation. Check that your AOR covers your target the way you expect it to.

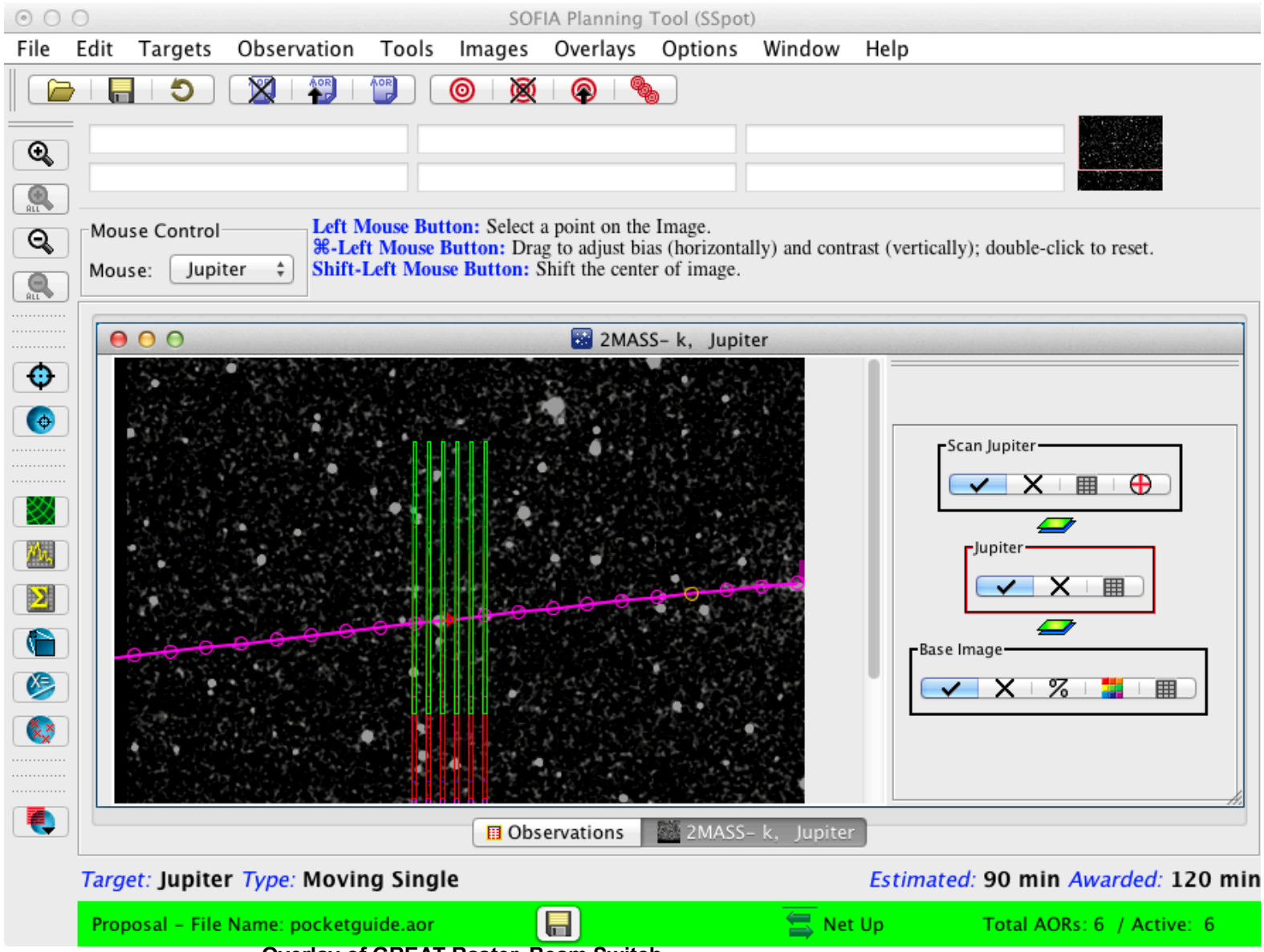
9. Options. Auto-update SSpot (get new versions automatically when selected). Sum only selected AORs - have SSpot add up the total duration for a subset of the AORs you are working with. Disk cache preferences are selectable too.

10. Full ‘online’ help packaged with SSpot.

Samples of the screens:


SOFIA Planning Tool (SSpot)
File Edit Targets Observation Tools Images Overlays Options Window Help
Main Menu Bar
Shortcut Icons
Observations
Astronomical Observation Requests (AORs)
Instrument | Label | Target | Mode | Durati... | Expo... | Filter 1 | Filter 2 | Slit | Chop... | aorID
FORCAST_Imagi... | FOR_Img | haro3 | Nod_Match_Chop | 24 | 6 | FOR_F054 | OPEN | | 120.0 | 02_0510_1
FORCAST_Grism | scan m67 | Jupiter | SLITSCAN | 13 | 6 | FOR_G111 | OPEN | FOR_LS24 | 30.0 | 02_0510_12
GREAT SP | GRE m67 | m67 | Total_Power | 310 | 5 | GRE_M1 | GRE_L2 | | 0.0 | 02_0510_13
GREAT Raster | map m67 | m67 | Dual_Beam_Swi... | 4620 | 2160 | GRE_L1 | GRE_L2 | | 60.0 | 02_0510_18
FLITECAM Grism | FLT m68 | m68 | NOD_ALONG_S... | 308 | 4 | FLT_A2_KL | | FLT_SS20 | | 02_0510_23
EXES Medium | EXE m35 | M35 | MAP | 68 | 30 | OPEN | EXE_ECHL | EXE_S34 | | 02_0510_30
Show Hide Column
Click on column header to sort
Instrument Name
User Entered Unique AOR Label
Target Name
Observation Mode
Duration in seconds
Exposure in seconds
Filter 1 / 2 Slit
Chop Throw
AOR ID
Current Selected Target and Target Type
Observing Plan ID (ID of Approved Proposal from DCS server) or File Name (if loaded from local disk)
AOR window tab
Has Internet connection
Total Duration of all AORs
Total Awarded Time
Observations
Target: m68 Type: Fixed Single
Estimated: 89 min Awarded: 120 min
Existing Project - 02_0510 username:llin
Net Up
Total AORs: 6 / Active: 6


Zoom in image in active frame
Zoom in on all frames (not active if only one frame is displayed)
Zoom out
Click on crosshairs to center current frame to current target's position (for fixed targets).
Show current fixed target
Show coordinate grid
Create a slice from an image
Compute statistics in an area on the image
Crop image
Show distance
Add marks to image and create your own catalog
Overlay other images
SOFIA Planning Tool (SSpot)
File Edit Targets Observation Tools Images Overlays Options Window Help
Mouse Control
Mouse:
⌘-Left Mouse Button: Drag to adjust bias (horizontally) and contrast (vertically); double-click to reset.
Shift-Left Mouse Button: Shift the center of image.
2MASS- k, m67
8h51m20s
+11d49m00s
+11d48m00s
Grid
02_0510_18
Base Image
Observations
2MASS- k, m67
Target: m67 Type: Fixed Single
Estimated: 24 min Awarded: 120 min
Proposal - File Name: pocketguide.aor
Net Up
Total AORs: 6 / Active: 6
Image thumbnail with box outline showing zoomed field in frame below. Click on thumbnail to move position of zoomed image.
Click to view SOFIA's pointing positions.
Focal beam control
Background image
Overlay of GREAT Raster, Beam Switch



Overlay of GREAT Raster, Beam Switch