ERO Observations for SM3B

- **Purpose:** Demonstrate that installation of the ACS and the restoration of NICMOS have produced an HST capable of continuing to push back astronomical frontiers.

- **Dependencies:** EROs will be taken using ACS and NICMOS (and possibly WFPC2). Must therefore follow science verification.

- **Duration:** ACS: 30 orbits. NICMOS: ~12 orbits. Proprietary period on ACS data 90 days.

- **Resulting products:** Images, accompanying text for press and web release, scientific papers.
ERO Audience

- There are two primary audiences for EROs.
- The astronomical community and scientifically literate public desire images which address forefront issues of astrophysics.
- To a great extent, the general public views HST as a means to visit the “natural parks” of the universe, and is most impressed by beautiful images rather than scientific content.
SM3A: Abell 2218
NGC 2392: The Eskimo Nebula
ACS EROs

- Up to 30 Orbits have been allocated by the HST program for ACS EROs
- A preliminary list of targets has been selected (Holland Ford will discuss this further).
- This list is being refined in discussions between the ACS group and STScI.
- The list is expected to be reviewed by NASA HQ in March for final entry in GTO list in April.
NICMOS EROs

- In order to demonstrate the success of the installation of the cryocooler, we plan to devote ~12 orbits to NICMOS EROs.
- The NICMOS and ERO teams at STScI are working to prepare a list of targets for approval by NASA HQ.
- We presently expect ~ 2 targets will be selected.
Potential NICMOS ERO target

- IRAS 19297-0406
- Above snapshots (NICMOS H left; expanded, stretched, middle; WFPC2 F814W right) obtained by Borne et al.
- Shows multiple components of varying color, believed to be remnants of one, or quite probably multiple mergers.
WFPC2 EROs?

- In the event of a successful servicing mission the NICMOS and ACS EROs will highlight the new capabilities of HST.
- However, should the installation of ACS fail, or the shuttle mission be aborted, NASA may wish to be able to demonstrate the continued scientific capabilities of WFPC2.
- We, therefore, plan to choose targets which could be observed by WFPC2 as EROs should the need arise.