ACS Press Releases

■ Science

◆ Grism spectroscopy of UDF galaxies
◆ Mass of the MACHO-LMC-5 lens
◆ Earliest star-forming galaxies in UDF
◆ Kepler’s SNR
◆ Surviving companion star in Tycho’s SNR
ACS Press Releases

- **Images**
  - Gravitational lens in ACS/WFC parallel image
  - SN 2004dj in NGC 2403
  - Cat’s Eye Nebula
ACS Status / Operation

- All modes continue to operate well
- Preparation for two-gyro operations
  - Anticipated science impact described in two-gyro handbook
  - ACS/ETC updated to deal with two-gyro PSF
  - Planning underway for test observations in Feb 2005
- Electronics
  - Preparations are underway to allow a fast electronic side switch for ACS if ever necessary
ACS User Support

- Support provided for planning of 70 proposals:
  - 24 proposals switched from STIS
    - 11 use SBC
    - 15 use ACS prisms
    - 2 use ACS grism
    - 1 uses WFPC2
  - 39 newly accepted
  - 7 proposals accepted through Chandra TAC

- ACS SBC (FUV) and spectroscopic modes (grism/prisms) can take over some of the science from STIS
  - No snapshots possible with ACS/SBC
ACS Documentation

- New (complete) ACS Data Handbook released
- New Instrument Handbook released for Cycle 14
- ACS+WFPC2 newsletter (STAN) released
ACS Pipeline/Analysis Software

- **MultiDrizzle** implemented in ACS pipeline
  - Works on associated data (exposures in a visit created with a recommended pattern or CR-SPLIT)
  - Produces cosmic-ray cleaned, combined, geometrically corrected output image

- New STSDAS standalone release planned for Nov 2004 (will work also for e.g. WFPC2)

- Further improvements planned for 2005
  - e.g., ability to automatically register images
ACS Calibration

- Polarimetric Modes Characterized
  - I. Introduction and status (ISR 04-09; Biretta et al.)
  - II. The POLV filter angles (ISR 04-10; Biretta et al.)
  - III. Astrometry of polarized stars (ISR 04-11; Kozhurina-Platais et al.)
- SBC dark rate measured
  - ISR 04-14 (Cox)
ACS Calibration

- Amplifier Cross-Talk Characterized
  - I. Description of the effect (ISR 04-12; Giavalisco)
  - II. Using GAIN=2 to minimize the effect (ISR 04-13; Giavalisco)

- Geometric Distortion on HRC calibrated to 0.01 pixel
  - ISR 04-15 (Anderson & King)
ACS Calibration

- Coronagraphic Flatfield Methodology improved
  - ISR 04-16 (Krist et al)

- Calibration plan for Cycle 13 prepared and being executed
  - Additional calibrations for spectroscopic modes and SBC are being planned, now that STIS has failed.
ACS Reference Files

- Dark/Bias creation infrastructure revised
- Delivered to the pipeline since 06/2004:
  - 246 dark images
  - 58 bias images
  - 3 MultiDrizzle parameter tables
  - 6 Tables with improved geometric distortion polynomials
  - 22 higher-order geometric distortion correction images
  - Coronagraphic spot flats and spot position tables
WFPC2 Press Releases

- **Science**
  - Mass of L-dwarf binary star

- **Images**
  - Heart of the Trifid Nebula
  - Spiral galaxy NGC 3949
  - HII Regions N11 & N44 in the LMC
WFPC2 Support & Calibration

- WFPC2 continues to be supported primarily through routine calibrations (dark, bias, UV contamination, …) and user support
- New Instrument Handbook released for Cycle 14
- Accuracy of Photometric Zeropoints was studied
  - ISR 04-01: Heyer et al.
- Calibration plan for Cycle 13 prepared and being executed
- Time-varying geometric distortion solutions were delivered as reference files for use with MultiDrizzle