HST INS Work Item Data Sheet

1. SI/Title: STIS/CCD CTE on Extended Sources

2. INS Lead: L. Dressel

3. Description of Work:
   This activity involves the analysis of data observed during three calibration programs to determine the effects of CTE loss to surface photometry and spectroscopy of extended sources, as well as the time dependence of those effects: *(i)* the effects of CTE loss to CCD imaging of galaxies (e.g., luminosity, ellipticity, and position angle measurements at a given surface brightness), *(ii)* The effect of CTE loss to continuum fluxes and emission-line intensities in spectroscopy mode; *(iii)* The effect of CTE loss to *absorption*-line intensities, profiles, and equivalent widths in spectra. All results mentioned above will be compared to the correction applied by the physical model of CTE loss of the STIS CCD by P. Bristow of the ST-ECF (see below). In addition, the results from *(ii)* and *(iii)* above will also be compared to the CTE correction provided by the STIS pipeline (derived from point source spectrophotometry). This activity will involve writing three ISRs.

4. Schedule Constraints and Dependencies:

5. Risks and Open Issues:

6. Priority: High

7. Priority Justification:

8. Resources (including estimated calendar duration for each portion):
   a. Requirements
      STIS Instrument Scientist

   b. Development
      STIS Instrument Scientist
      CDBS Administrator

   c. Testing
      STIS Instrument Scientist
      CDBS Administrator

9. Documentation and Deliverables:
   Calibration ISRs (three)
   CDBS Reference File(s) Delivery
   Test Report(?)