

High Dispersion Calibration - Absolute calibrations of the IUE high dispersion mode developed by VILSPA RAs Angelo Cassatella, Daniel Ponz, and Pier Luigi Selvelli were officially certified at the November 1980 meeting of the Three IUE Agencies - NASA, ESA, and SRC. These calibrations - one for continuum spectra and one for emission line spectra - were derived by comparison of high dispersion spectra with low dispersion spectra of the same stars.

Preliminary results of an independent calibration being generated by direct observation of sounding rocket flux standards by GSFC RA Tom Ake show general agreement with the VILSPA calibration.

As this Newsletter goes to press the report describing the high dispersion calibration is not ready. It will appear in the next issue.

OBC Temperatures - With the earth near perihelion during this season we are plagued by the on-board computer (OBC) operating near the red-line temperature limit (55.8°C). Observing in the Beta angle range from 55° to 95° tends to heat the OBC. (Beta angle is the angular distance of the target from the anti-sun). Maximum heating occurs at about Beta angle 75° . Depending upon the initial temperature of the OBC, observations can be carried out in the "hot zone". However, once the OBC temperature reaches 55.8° , the observer has no more than one hour to terminate this exposure and to slew the telescope to observe outside the hot zone.

Finding Charts - The telescope operations staff would like to remind the Guest Observers that substantial amounts of your observing time may be wasted if you don't bring adequate finding charts. While maneuvers are usually accurate to a couple of arc minutes, occasionally the errors may be as large as 6 to 8 arc minutes. There is no guarantee that the bright star nearest the center of the field is your target.

- BD or SAO charts are not adequate for targets of ninth magnitude or fainter because there may be field stars nearly as bright as the target that were not included in the catalog.
- Relative brightness of stars in the FES field may be distorted slightly.
- The FES gives no color information. A target which is readily identifiable visually because of its unique color must be identified from the star patterns.
- In rich fields even 7th magnitude stars may not be unique.

Spatial Errors - Guest Observer Lonnie Lane has pointed out that image processing leaves residual geometrical errors which cause the center of the spectrum to wander slightly relative to the spatially-resolved orders. Furthermore, the IUE staff has noticed that the spatially resolved orders may be off center from the spectrum by as much as one order. Users of the spatially-resolved spectra should be wary against over interpreting the data.

More Image Processing Changes - Since 1980 November 1 the Goddard IUE image processing system has been using new software which gives spectrum samples at twice as many wavelengths as the old software and which does not generate a geometrically-corrected image. This improved software is described in detail elsewhere in this issue.

The Long Wavelength Primary Camera - At the 1980 November Three Agency meeting the Science Research Council, the UK IUE project, reported that test data shows that, at a given exposure level, the Long Wavelength Primary (LWP) camera gives better signal-to-noise in low dispersion spectra longward of 2350Å than the Long Wavelength Redundant (LWR) camera does. The Three Agencies agreed to start to commission the LWP for photometric use by Guest Observers. The commissioning will involve many months of calibration observations and analysis.

Personnel Changes - Since the last Newsletter there have been several changes to the telescope operations staff. New telescope operators Bill O'Donnell and Bryan Baroffio joined IUE from Villanova and Penn State University respectively. Ruth Ehlers, while still working in the IUE Observatory, will no longer be a telescope operator. Sorry, guys!!

Al Holm
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