

Corrections for the "Users' Guide for the LWP Camera"

The following report is a user's guide for the Long Wavelength Prime (LWP) camera that was prepared by Settle, Shuttleworth, and Sandford of the UK's IUE project. The LWP camera was used during the first month after launch of the IUE. During that time a failure developed in the logic that controls the scanning of the read beam. Although this failure was intermittent, the probability of losing an image was judged to be too high for the camera to be used for Guest Observer programs. Therefore, all Guest Observer spectra in the long wavelength spectrograph have been exposed on the Long Wavelength Redundant (LWR) camera.

During the reoptimization of the LWP camera, the read problem was rarely seen. Moreover, modifications had been made to the procedures which controlled the cameras that were intended to detect the failure and to recommand the camera to scan correctly. Because the scan problem was believed to be vanquished and because the LWP has better sensitivity and signal-to-noise characteristics in some wavelength ranges than the LWR does, the Three Agencies decided to develop data bases and software that would permit the LWP camera to be used for some Guest Observer observations.

The user's guide summarizes the evaluation of the suitability of the LWP camera for use by Guest Observers.

There are some new (and mostly negative) developments that have arisen since the user's guide was written. Since this issue of the Newsletter is going to press before we have received a second issue of the user's guide, I am presenting these developments here as corrections.

- 1) The read problem has not disappeared. It has occurred during every test involving an exposure longer than about 4 hours. The modifications to the procedures proved to be inadequate to save the images. A second set of modifications was made to the procedures. These also were inadequate. We are working on another revision to the operations software to avoid losing the image when the failure occurs, but there is no guarantee that these revisions will successfully work around the failure.
- 2) The reduction in radiation background discussed in Section 3.3 of the user's guide applies only to the low radiation shifts. During the US2 high radiation shift, the particle radiation causes the background for the

low dispersion spectra to accumulate about twice as rapidly as for the LWR camera. This is not because of an intrinsic difference between the cameras but because the low dispersion spectrum falls on the region of the LWP camera that is most sensitive to radiation.

We will use the IUE Newsletter to keep you up to date about the status of the LWP camera, especially concerning the read problem. Improvements in the Intensity Transfer Function and the development of a sensitivity curve to convert camera units into fluxes are expected to be very slow in coming. If you think you might be interested in using the LWP, call a resident astronomer for operations (301/344-7537) to learn the latest on the camera's status.

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1981 September 20