Gyro 2 Fails. Gyro number 2 failed during the US1 shift on July 27, 1982. It ceased to spin in only 9 seconds, indicating the catastrophic failure of some mechanical component such as a bearing. IUE continues to function normally on the 3 remaining gyros, but no backup is available in case of another failure. Further details on the gyro failure and plans for a new gyro control system are discussed in an article by Ivan Mason in this Newsletter.

Periodically the gyro scale factors have to be updated to account for changes in gyro status. A rescaling was performed in December 1982. Occasionally, the errors after long maneuvers are systematically large (10 arcmin or more). Blind offsets, which are dominated by random errors, are still accurate to 1 arcsec. Guest Observers are advised to bring good finder charts not only for their targets but for nearby offset stars for the initial acquisition of a field.

On the IUE Calibration. A recent paper by Holm, Bohlin, Cassatella, Ponz, and Schiffer (1982, Astron. Ap. 112, 341) discusses the 3-Agency 4th File algorithm for correcting SWP low resolution spectra affected by an erroneous level in the Intensity Transfer Function for the camera. This work was originally reported in IUE Newsletter No. 8, along with other suggested algorithms. The ITF problem affects all low dispersion SWP images processed at Goddard from May 22, 1978 to July 7, 1979, and those processed at VILSPA from June 14, 1978 to August 6, 1979. High dispersion images taken at this time were reprocessed with the correct ITF since no adequate correction algorithm could be devised.

The paper by Holm et al. also lists the improved sensitivity calibration for the SWP and LWR cameras that has been in use in production since November 3, 1980 at Goddard and March 10, 1981 at VILSPA. This is the 'May 1980' calibration first published in the NASA IUE Newsletter No. 10, page 37, and supercedes the previous calibration given by Bohlin et al. (1980, Astron. Ap. 85, 1). The newer calibration represents about a 10 percent change for both cameras and improves the agreement of the fluxes in the wavelength region of overlap between the cameras.

Investigators who use old IUE data from the NSSDC data archives are reminded to examine the image processing label along with NASA IUE Newsletter No. 16 to determine how the image was processed. Please state which calibration and correction algorithm are used in any publication dealing with IUE data.

Good News on IUE's Batteries. During the September 1982 earth shadow season, the spacecraft batteries performed somewhat better than expected. A refinement of the battery discharge calculations indicates that the discharges have been less deep than previously thought. A beneficial effect is that we may continue our present spacecraft shadow configuration for an additional 2 years or so. At present, in the scientific instruments, only the LWR camera and telescope tube and mirror heaters are turned off during shadow itself, which lasts up to 75 minutes a day during the season. Any further conservation requirements would effect our ability to perform observations during the entire 3 week shadow season.

LWP Camera Revisited. A change in policy concerning the LWP camera was adopted at the Three Agency Meeting held in September, 1982 in Madrid, Spain. Project approval will no longer be required for use of the LWP camera. A Guest Observer may thus request use of the camera from the RA on duty. However, as before, the overhead involved in turning cameras on and off must be absorbed by the GO using the LWP. Also the cameras may be cycled only once per day by an observer. The LWR camera continues to be the primary long wavelength camera.

Preliminary analysis of advantages and disadvantages of the LWP are reported in IUE NASA Newsletter No. 15. Further studies were presented at the Three Agency Meeting and the September IUE Users' Committee Meeting; they will be published in a later Newsletter. Observers interested in learning more about the LWP camera are welcome to speak with any Resident Astronomer about its use.

Delta-V. An orbital adjustment, or delta-v, was performed on August 17, 1982. About once a year IUE's large hydrazine jets must be fired to stop the westward drift of its synchronous orbit. The major impact to observers is an increase in overhead for a few days in ensuring adequate telemetry signal levels prior to camera reads until new orbital elements can be derived for ground antenna pointing. The next burn will occur in Spring 1983. About a 50 years' supply of hydrazine is available on-board the spacecraft at the current usage level.

A Remote Observing Study for IUE. The IUE Observatory has explored the possibility of setting up remote observing stations within the U.S. The requirements of such a system proved rather restrictive, primarily due to the need to transmit a high quality video image of about half a million pixels on a short timescale. Such a system is available but the costs were found to be prohibitive when compared to the anticipated savings in travel costs. Thus there are no further plans to pursue setting up an IUE remote observing site.

Personnel Changes. Francis 'Skip' Schiffer is leaving IUE to take a position at the Space Telescope Science Institute. Bob Panek has taken over Skip's responsibilities at the Goddard Regional Data Analysis Facility. He may be called at (301) 344-8800 for information on the RDAF and to schedule reduction sessions. In addition, George Sonneborn is now handling the schedule of IUE observations while Cathy Imhoff is responsible for the calibration analysis. Questions concerning scheduling, observations, or calibrations may be addressed to any Resident Astronomer at (301) 344-7537.

Cathy Imhoff