05.02 The Corona and Chromosphere of Proxima Centauri During Flare and Quiescent Times. B. M. RAISCH,* Lockheo Palo Alto Res. Lab., P. L. BORNMANN, J. L. LINSEY,* JILA, U. of Colo. & NSR, and O. B. SLEE, CSIRO. X-ray measurements and ultraviolet spectra (175-3200 A) of the M5e flare star Prox Centauri were obtained with the Imaging Proportional Counter on Einstein (HEAO-2) and the UV Spectrograph on IUE. We have detected quiescent coronal emission at a temperature of 4.6 x 10^6 K and faint chromospheric and transition region emission lines (Mg II, Fe II, C IV, Si IV, N v). The first definitive observation of coronae on M dwarfs (Ap. J., 236, L33). A bright, time resolved soft X-ray flare was also observed at that time (6 and 7 March 1979) reaching a maximum temperature of 1.2 x 10^7 K and a peak luminosity of 7.4 x 10^2 erg/s/cm, comparable to a large solar flare (Ap. J., 262, 1999). On 20 August 1980 we carried out a second simultaneous, coordinated IUE, Einstein, and ground based observing program. Preliminary reduction of the IUE data indicate another major flare occurred with considerable enhancement of the ultraviolet emission line spectrum. For example, the C I 1657 A line brightened by a factor of 2 and the C IV 1549 A line by a factor of 3. These enhancements would be considerably larger if the flare duration were less than the 60 minute IUE observation. We will present these new observations in conjunction with the previous measurements and recent SMM data on solar flares.

This work is supported by NASA under contract NASP-33969 to the Lockheed Palo Alto Research Lab and grant NAS5-82 to the University of Colorado.

*Guest Observer, Einstein Observatory (HEAO-2) and the International Ultraviolet Explorer.
†Staff Member, Quantum Physics Division, NASA.

05.04 Photoelectric Scans of Field Horizontal-Branch Stars. A. G. DAVIS PHILLIP, Union College and Dudley Observatory and D. S. HAYES, KPHO. Over the past two and one half years a group of stars classified in the literature as field horizontal-branch stars has been scanned with the Harvard scanner at CTIO and KPHO. The stars HR 718, 3454, 4468, 5511 and 9087 were used as standard stars and have been measured an average of over 35 times each. Typical rms errors in a 40 A Angstrom slot at 3400 Angstroms are ± 0.02 mag. A catalogue of the mean energy distributions for each star will be displayed at the poster session.

05.03 Far-Ultraviolet Fluorescence of Carbon Monoxide in the Red Giant Arcturus. T.R. AKERS,*
LASP, U. of Colo., R.W. HODD and J.L. LINSEY,* JILA, U. of Colo. & NSR. We present evidence that many of the weak emission features observed with the

05.05 IUE Observations of Stellar lines in OB Stars. L.W. KEMP, JPL, C.J. NEEDHAM, Bentley Coll., and L.A. YORK, Intermetrics Inc. High-resolution spectra have been obtained on the short-