

5. NOTES AND USER PRECAUTIONS

- 1) The uncertainty (1 standard deviation) in the corrections for look angle and sector significantly influences the quality of the data. If the instrument pointing is not determined accurately, the star subtraction process can introduce large errors. Nominal values for computer words 19 and 20, File 2, Record 1, are 0.15 and 0.40, respectively.
- 2) The foreground star subtraction process, while greatly reducing the effect of stars brighter than about 6.5 mag, nevertheless introduces its own set of errors. These are mainly caused by two effects: 1) stars very near the edge of the field may be subtracted from the wrong FOV; 2) the color corrections for the 12,500 foreground stars are based on the statistics of only a few hundred standard stars. There exists a natural scatter in this calibration which may contribute large errors to FOV's containing stars brighter than about 2nd magnitude.

The above errors are recognized as an abnormally high or low reading in one FOV with respect to the neighboring fields. For Pioneer 10, the number of FOV's which have this defect is much less than 10% for the blue channels and greater than 10% for the red channels. The RS channel is inherently very "noisy", and this also contributes, along with the color statistics, to the higher number of erroneous red channel FOV's.

- 3) FOV's with elongation angles smaller than about 45° contain some stray light contributions. To analyze these data, the user should contact the experimenter directly.