Instrument Science Report CAL/FOS-152 (97-02)

# Location of FOS Spectra: Cycles 5 and 6

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**ABSTRACT**

*The optimal locations of the FOS spectra were determined and the Project Data Base (PDB) updated accordingly on four occasions during Cycle 5 and 6: October, 1995; January, 1996; June, 1996; and December, 1996. The October, 1995, and January, 1996, updates included polarimetry positions. These calibrations used the data from proposals 5530, 6146, 5579, 6206, 6166, 6236, 6913 and 6914. All individual measures and PDB updates from this time period are included in this report. Analysis shows the continued linear spatial drift with time in the positions of the spectra for all gratings observed with the FOS/BLUE detector while the locations of the spectra for all gratings using the FOS/RED detector remained scattered. An increase in the frequency of G270H measurements has provided a much clearer view of the true scatter in FOS spectral positions.*

## 1. Introduction

The ability to record FOS spectra and the accuracy of the FOS binary target acquisition (ACQ/BIN) depend on knowledge of where the spectrum is on the photocathode and the accuracy with which the photoelectrons ejected from that position are magnetically focused upon the diode array. The location of the spectrum along the y-axis of the FOS detectors is called its YBASE and is measured in units called ybases. Even if the physical location of the incident light on the photocathode remains constant the YBASE may vary as a result of any change in the magnetic environment of the detector. YBASE values have been monitored very closely as they affect the quality of the scientific data received. Calibration observations during SV and cycles 1, 2, 3 and 4 showed a spatial drift with time in the YBASES for spectra from all gratings observed with the FOS/BLUE detector while the YBASES for spectra from all gratings measured with the FOS/RED detector were too scattered to reveal a significant trend. Analysis and results after the continued monitoring of these effects throughout Cycles 5 and 6 are reported in this instrument science report. Results from earlier cycles were presented in ISRs 95, 96, 110, 116 and 133.

### 2. Observations and Analysis

Calibration observations to determine the locations of the FOS spectra for both the FOS/RED and FOS/BLUE detectors were obtained approximately every month from November, 1994,

to February, 1997 (proposal IDs: 5530, 6146, 6166, 6236, 6913, and 6914). Beginning in August, 1995, a G270H observation was performed after each observation with any other grating, yielding more samples of the position of G270H spectra than of all the other dispersers combined! The polarimetry spectral YBASE updates reported here are obtained from polarimetry data acquired in May, 1994, (proposal 5579) and December, 1995 (proposal 6206).

The internal wavelength calibration lamp was observed using the 0.3″ aperture. The observations were made using the YBASE values as contained in the PDB at the time of the observations. The optimal YBASE, which represents the center of the spectrum in the direction perpendicular to the diode array (the FOS Y axis) is then determined for each observation (for details see CAL/FOS-96). Table 1 lists the diode range used in the determination of the optimal YBASE for each grating. Tables 2 and 3 have the following information for each grating/detector combination: the root name of the observation used in the analysis; the date of the observation; the optimal YBASE value (measured for that particular observation); the height, in ybases, covered by the curvature in that spectrum across the y-axis of the diodes; the angular orientation of the FOS spectrum on the photocathode ($\theta_z$); and the temperature of the FOS during the observation.

## 3. Results

Figures 1 and 2 show the distribution of the YBASE values determined for each observation in the SV, SMOV and cycles 1-6 monitoring programs for each disperser/detector combination. The trends in the data reported in CAL/FOS-133 are seen to have persisted throughout the entire lifetime of the FOS.

In the case of the FOS/BLUE detector, the data are correlated. Tables 4, 5 and 6 give the linear correlation coefficients for the data used in the PDB updates of September, 1995, then June, 1996, and finally December, 1996. The continued spatial drift with time in the positions of the spectra for all gratings is evident (see Figure 1). On average, the locations of the spectra shifted by about 0.5 ybases per month (256 ybase units = 1.3 arcsec = 1 diode height). This analysis continues to show the trend, reported in CAL/FOS-133, that there is a change in the amount of variation if the data are divided into two halves, one prior to 1993.3 and one after 1993.3. For the data obtained prior to 1993.3 the mean of the standard deviations for all the gratings ($<\sigma>$) equals 9 ybase units, while for data obtained after 1993.3 $<\sigma> = 14$ ybase units (Table 7 gives the standard deviations for each grating for the data prior to 1993.3 and for the data used in the PDB updates of September, 1995, June, 1996, and finally December, 1996.). The dashed lines in Figure 1 represent $\pm 1\sigma$ from the best fit straight lines to the two halves of the data. The dotted lines in the figures represent ±10 ybase units (0.05″) and correspond to the range in YBASE values attributable to Filter-Grating Wheel (FGW) non-repeatability (see CAL/FOS-145). Most of the scatter in the first half of the data lies within the dotted lines, whereas the scatter in the second half of the data is larger than can be accounted for by FGW non-repeatability.

In the case of the FOS/RED detector, the data are not well correlated (see Tables 4, 5 and 6) and though we plot the best linear fits, the locations of the spectra for all gratings show no definitive trend with time (see Figure 2). As in the case of the FOS/BLUE detector data, the FOS/RED detector data also show a change in the amount of scatter if the data are divided into two halves, one prior to 1993.3 and one after 1993.3. For the data obtained prior to 1993.3 $<\sigma> = 10$ ybase units while for data obtained after 1993.3 $<\sigma> = 19$ ybase units (see Table 8). Thus, the change in scatter is more pronounced for the FOS/RED detector than for the FOS/BLUE detector. It is possible that any spatial drift with time of the YBASE on the Redside is masked by the large

scatter in YBASE values that is observed for this detector. In Figure 2 we plot dashed lines again representing ± 1σ from the linear fits and dotted lines representing the ±10 ybase FGW scatter from the best fit line.

The difference in scatter in the YBASE positions of FOS spectra before and after 1993.3 is assumed to be related to the change in the frequency of the magnetic hysteresis deperming of the FOS Digicons. That change was related to the onboard GIM (Geomagnetic Image Motion) correction that was enabled onboard on April 5, 1993. This hypothesis was tested in FOS calibration program 6146, the results of which will be reported in another CAL/FOS ISR. For further discussion of this issue see CAL/FOS ISR-133.

**4. (a). PDB Updates: Spectrophotometry---Single Aperture YBASES**

- On **October 16, 1995**, a PDB update, with the values given in Table 11 for each grating/detector/aperture combination, was implemented on the spacecraft. For the Blueside, the YBASE values which best represent the locations of the spectra from each grating as of November 1, 1995, were predicted using the linear fit to the data obtained from June, 1993, (MJD 49132), through August, 1995, (MJD 49912). For the Redside data, since the data are poorly correlated, only the average of the data from the same time frame was computed. Updates were made only for those spectral positions where a change from the old PDB value of 5 or more ybases was indicated.
- In **January of 1996**, the clear (non-polarimetry) YBASE positions were adjusted only for the three gratings (Blueside G190H, G270H and G400H) also in the January, 1996, polarimetry YBASE update. The December, 1995, proposal 6206, measurements from which the PDB updates were derived are included in Table 13 (the 'single, clear' data), while the new PDB values are reported in Table 14.
- On **June 15, 1996**, the YBASE values for spectra from most non-polarimetry grating/detector/aperture combinations were again updated on the spacecraft. These updates are given in Table 16. For the Blueside the values were chosen as those predicted as optimal for August 1, 1996, by the linear fit to the observations made from June, 1993, through May, 1996, (MJD 50200). The change estimated for the prism was too small, 1 ybase, to justify an update to that YBASE. For the Redside, for the first time, some partial weight was given to the trends predicted by fits to the data from the same time frame as the Blueside. The values updated in the PDB for the Redside were determined by taking an average of the YBASEs measured for all data from January, 1995, (MJD 49718), through May, 1996, and then averaging that value with the value predicted by the linear fit as being optimal for August 1, 1996. Only YBASEs which were 5 or more ybases different from the old PDB value were updated.
- On **December 18, 1996**, the final PDB YBASE update was implemented on the spacecraft. The updated values are given in Tables18. Optimal positions for all non-polarimetry spectral positions were determined and those values which differed by 5 or more ybases from the existing PDB value were updated. For both the Blueside and Redside the values were chosen as those predicted as optimal for January 15, 1997, by the linear fits to the YBASE measurements from the data of June, 1993, through November, 1996, (MJD 50412).

The YBASE values from these, as well as all previous PDB updates, are overplotted on Figures 1 and 2. The 'error bar' style horizontal lines show the PDB YBASE value for the time frame covered by the 'error bar'.

### 4 (b). PDB Updates: Spectrophotometry---PAIRED Aperture YBASEs

- For the above October, 1995, June, 1996, and December, 1996, PDB updates of the single, clear, aperture spectral positions, the YBASEs for the paired (upper and lower) aperture spectra for all grating/detector combinations were also updated. The updated values are given in Tables 12, 17 and 19. The values for the paired aperture spectral positions were determined from the single, 0.3″, aperture spectral YBASE values. The separations between the paired aperture spectral positions and the spectral positions for the 0.3″ aperture are as revised due to measurements reported in CAL/FOS-138. Prior to that analysis, the upper and lower aperture positions were assumed to be offset from the center, single aperture positions by 256 ybases.
- The new offsets from the single YBASE values for the Blueside are -235 ybases, LOWER, and +282 ybases, UPPER. For the Redside the offsets are -262 ybases, LOWER, and +270, UPPER.

### 4 (c). PDB Updates: Spectropolarimetry

- On **October 16, 1995**, an update (see Table 10) was made to the values for two polarimetry spectral positions, from G190H and G270H, using waveplate B, for both the Redside and Blueside. These values are derived from the proposal 5579 measurements of May, 1994, which are presented in table 9. We note that these polarimetry positions were previously reported in Table 3 of CAL/FOS-133, but were not implemented at that time.
- In **January of 1996** another PDB update was made for FOS/BLUE G190H and G270H polarimetry positions using waveplate B and G400H spectra using waveplate A. As reported above, the related clear (non-polarimetry) YBASE positions for spectra from the same gratings were also adjusted. The December, 1995, proposal 6206, measurements from which the PDB updates were derived are presented in Table 13, while the new PDB values are reported in Table 15.

### 5. Summary

A PDB update was made for all grating/detector/aperture combinations in September, 1995 (implemented onboard on October 16, 1995), using calibration maps obtained during November, 1994, through July, 1995, (proposal IDs 5530 and 6146). That update took into account newly measured offsets of the paired apertures from the singles. It also included updates, using data from proposal 5579, to polarimetry positions using waveplate B with the G190H and G270H gratings in both detectors.

An additional update to the Blueside polarimetry, waveplate B, G190H and G270H and waveplate A, G400H YBASEs was made to the PDB in January, 1996. At the same time, the positions were updated for the clear (no waveplate in the beam), single aperture YBASEs for G190H, G270H and G400H, Blueside. These updates used December, 1996, data from proposal 6206.

The PDB YBASE values for all non-polarimetry grating/detector/aperture combinations were again updated on the spacecraft on June 15, 1996. That update used calibration data obtained from August, 1995, through April, 1996 (proposal IDs 6166 and 6236). The final update of the PDB was implemented onboard on December 18, 1996. At that time, all non-polarimetry

YBASE positions were optimized using the additional calibrations maps obtained up through November, 1996 (proposal IDs 6913 and 6914).

Analysis shows the continued linear spatial drift with time in the positions of the spectra for all gratings observed with the FOS/BLUE detector. While the locations of the spectra for all gratings using the FOS/RED detector remained too scattered to measure a well correlated trend, a linear drift similar to that on the Blueside was assumed. The results of the final two months (December, 1996, and January, 1997) of monitoring observations under proposals 6913 and 6914 showed no change in the YBASE characteristics and were consistent with the December, 1996, PDB updated values. Individual PDB updates are consistent with trends determined from the full body of YBASE data.

## 6. References

A. Koratkar and S. Martin, 1995, ISR CAL/FOS-145: FOS Filter Grating Wheel Repeatability.

A. Koratkar and C. J. Taylor, 1993, ISR CAL/FOS-96: Location of FOS Spectra: Cycle 1 and Cycle 2 Results.

A. Koratkar, C. D. Keyes and S. Holfeltz, 1995, ISR CAL/FOS-133: Location of FOS Spectra: Cycle 4.

I. N. Evans, A. P. Koratkar, C. D. Keyes, and C. J. Taylor, 1995, ISR CAL/FOS-138: SMOV Report VII: FOS Aperture Alignments - II. “Small” Apertures and Adopted Alignments.

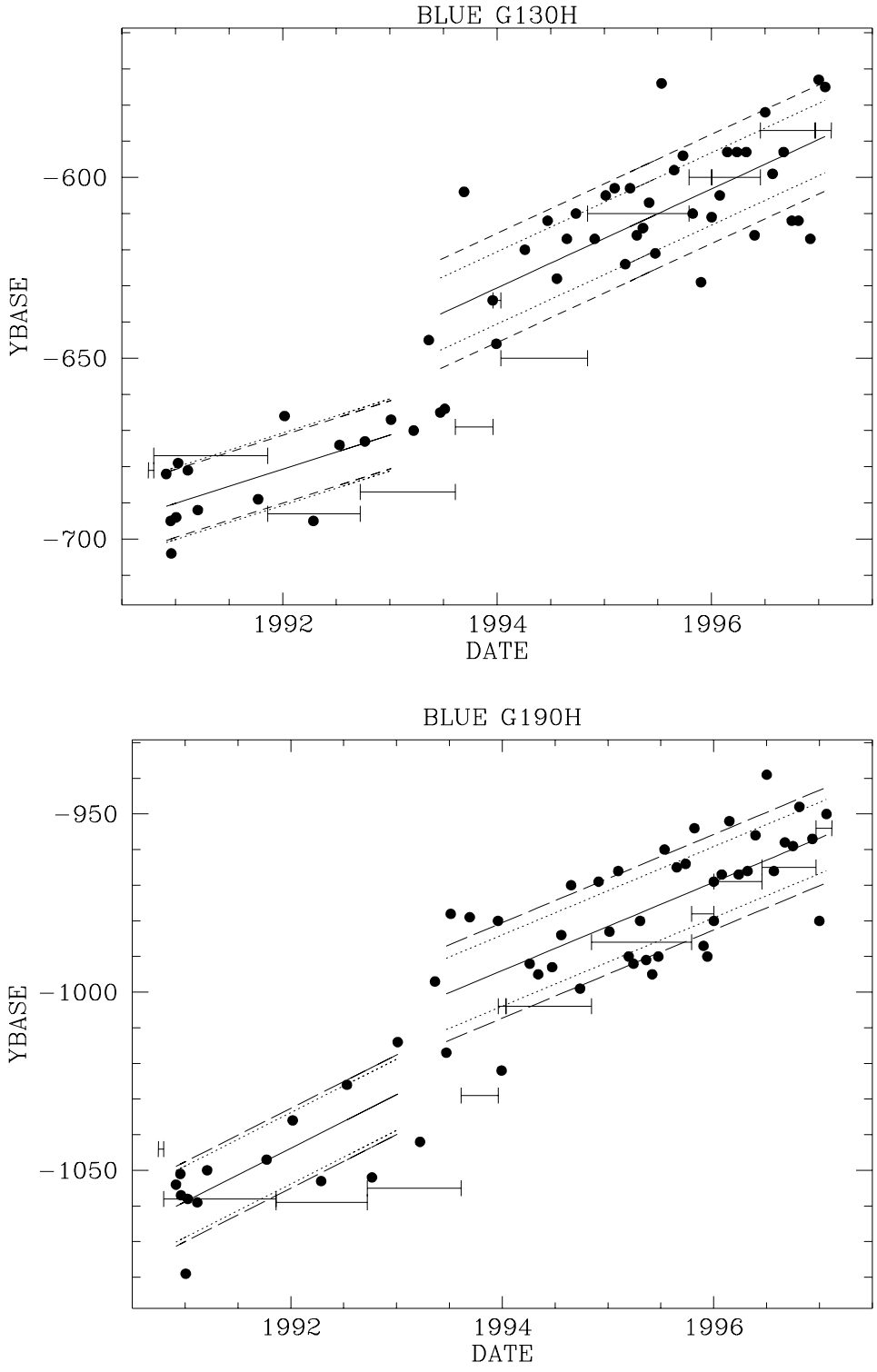



FIGURE 1. The optimal YBASE values as a function of time with best linear fits. The dashed lines are +/- 1σ ybase units from the best fit straight line while the dotted lines are +/- 10 ybase units representing the possible range in the YBASE values due to filter-grating wheel non-repeatability. The horizontal 'error bar' style lines are the PDB YBASE values.

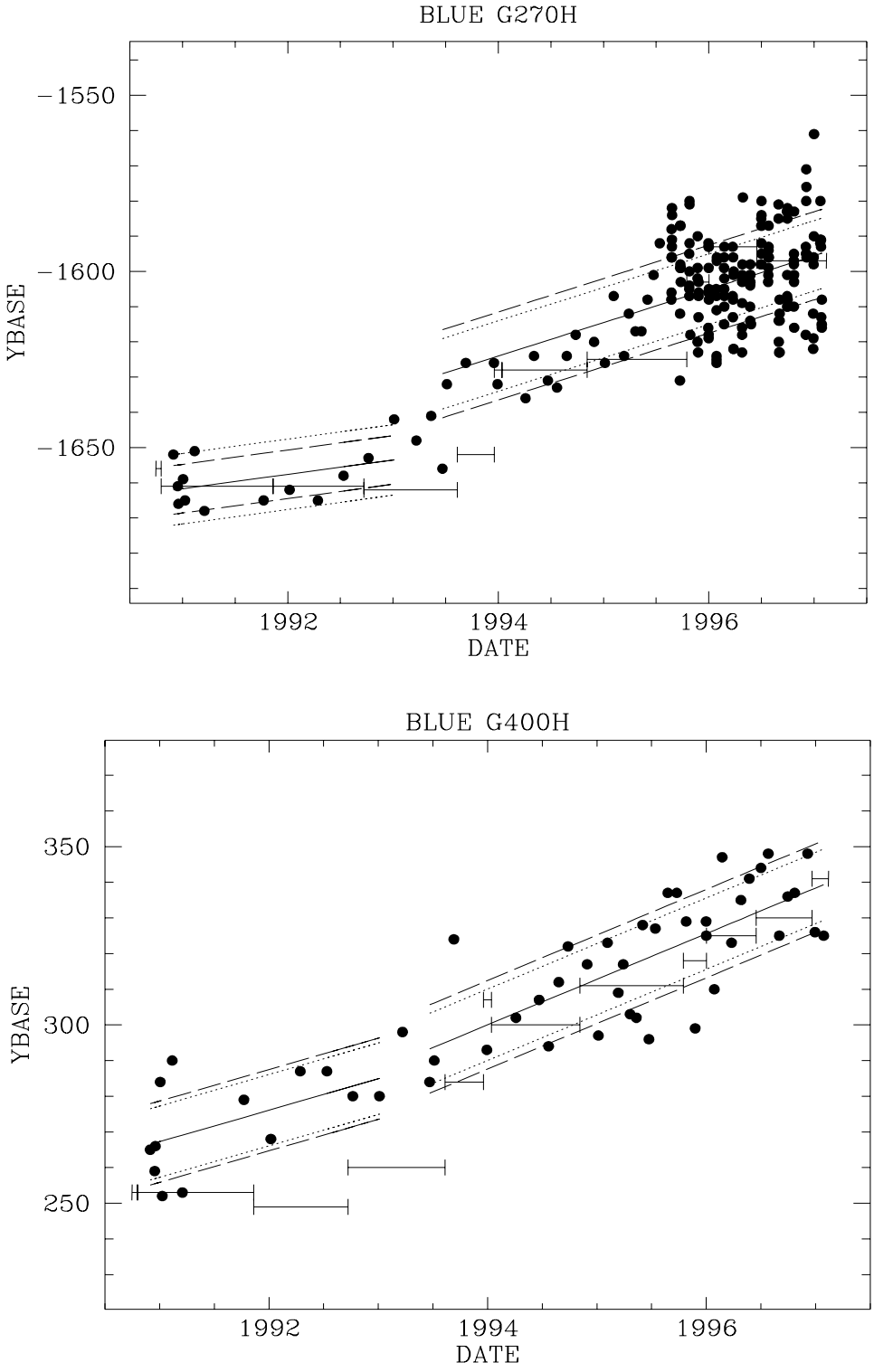



FIGURE 1 (cont.). The optimal YBASE values as a function of time with best linear fits. The dashed lines are +/- 1σ ybase units from the best fit straight line while the dotted lines are +/- 10 ybase units representing the possible range in the YBASE values due to filter-grating wheel non-repeatability. The horizontal 'error bar' style lines are the PDB YBASE values.

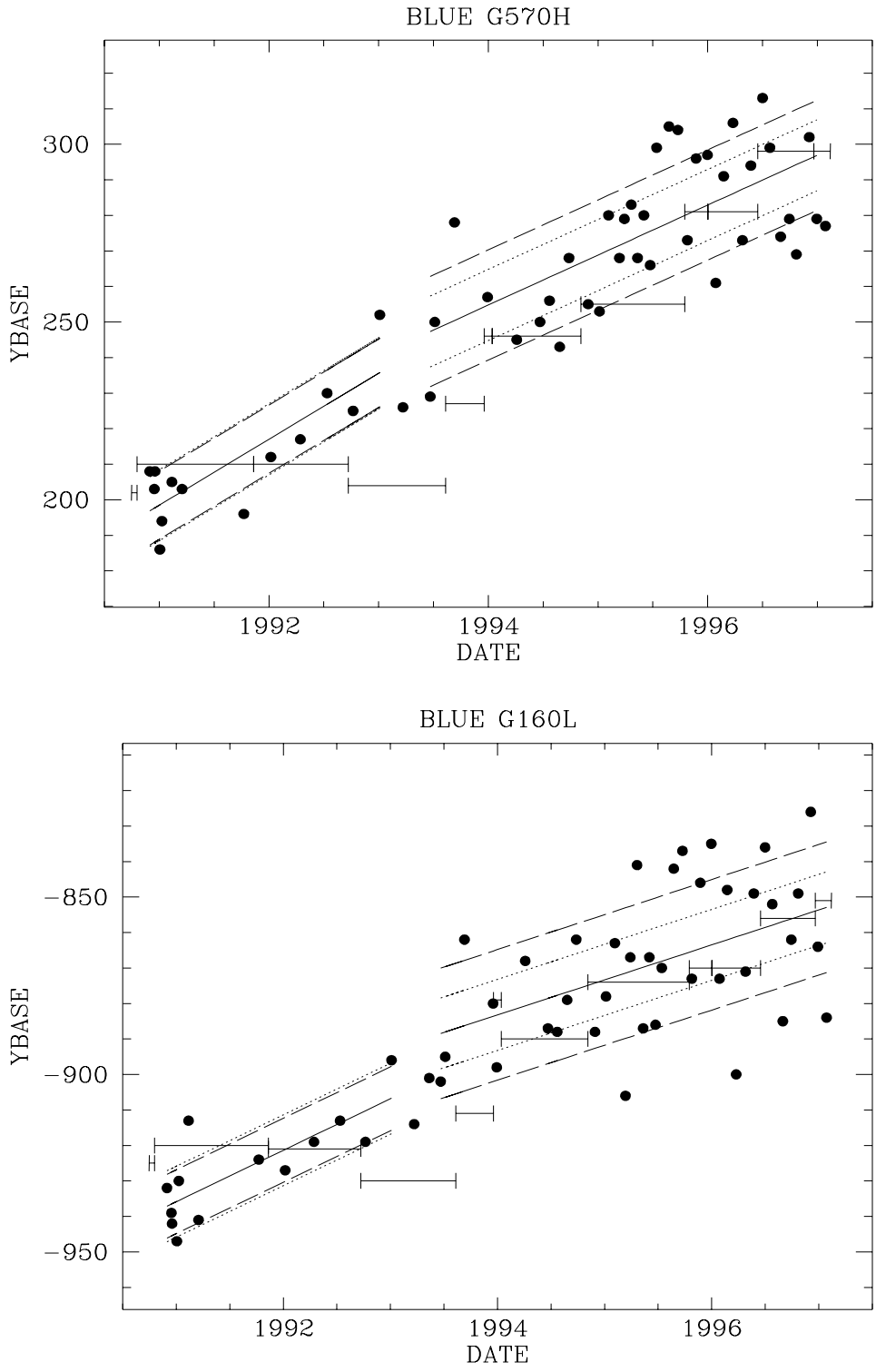



FIGURE 1 (cont.). The optimal YBASE values as a function of time with best linear fits. The dashed lines are +/- 1σ ybase units from the best fit straight line while the dotted lines are +/- 10 ybase units representing the possible range in the YBASE values due to filter-grating wheel non-repeatability. The horizontal 'error bar' style lines are the PDB YBASE values.

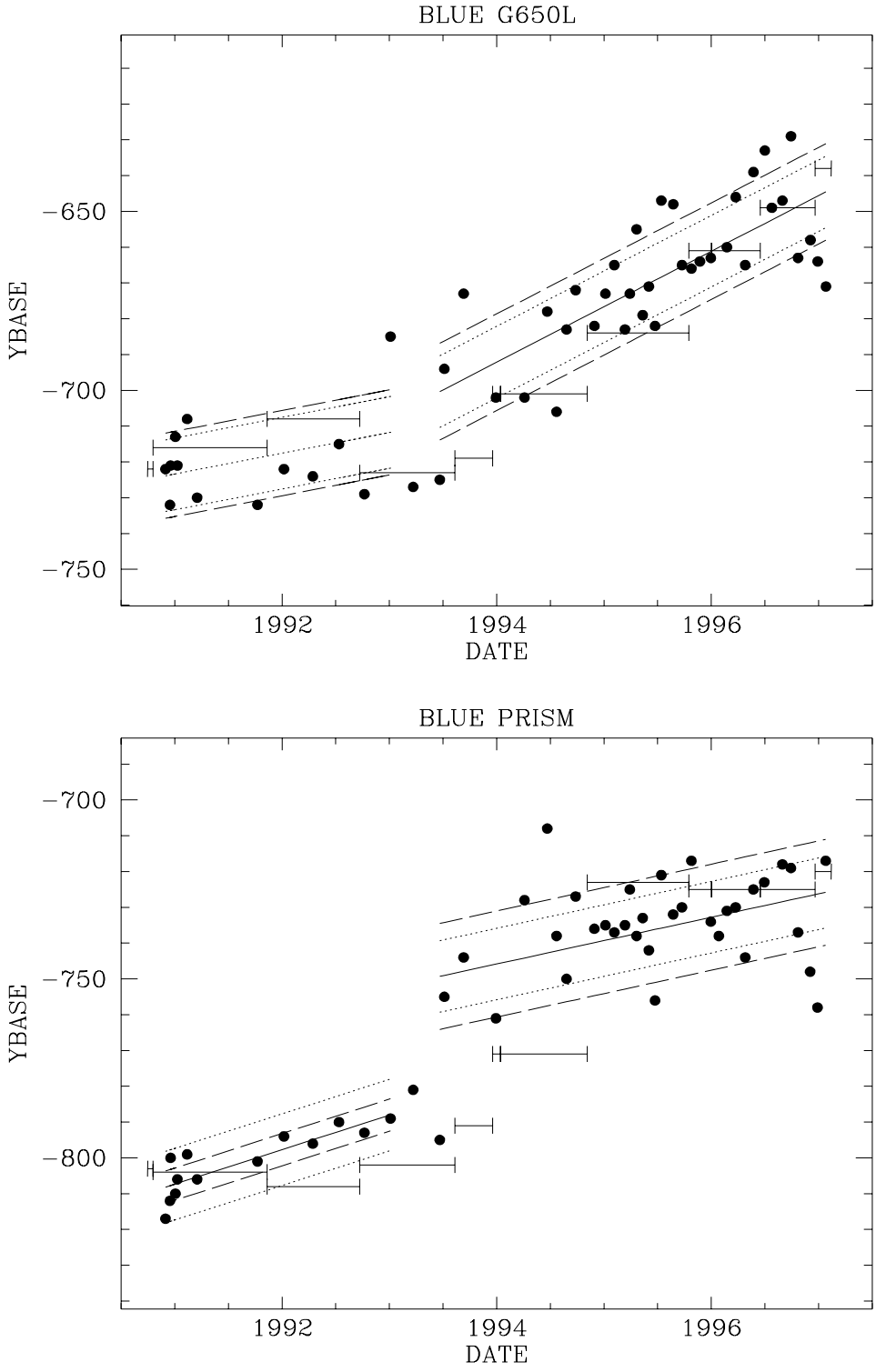
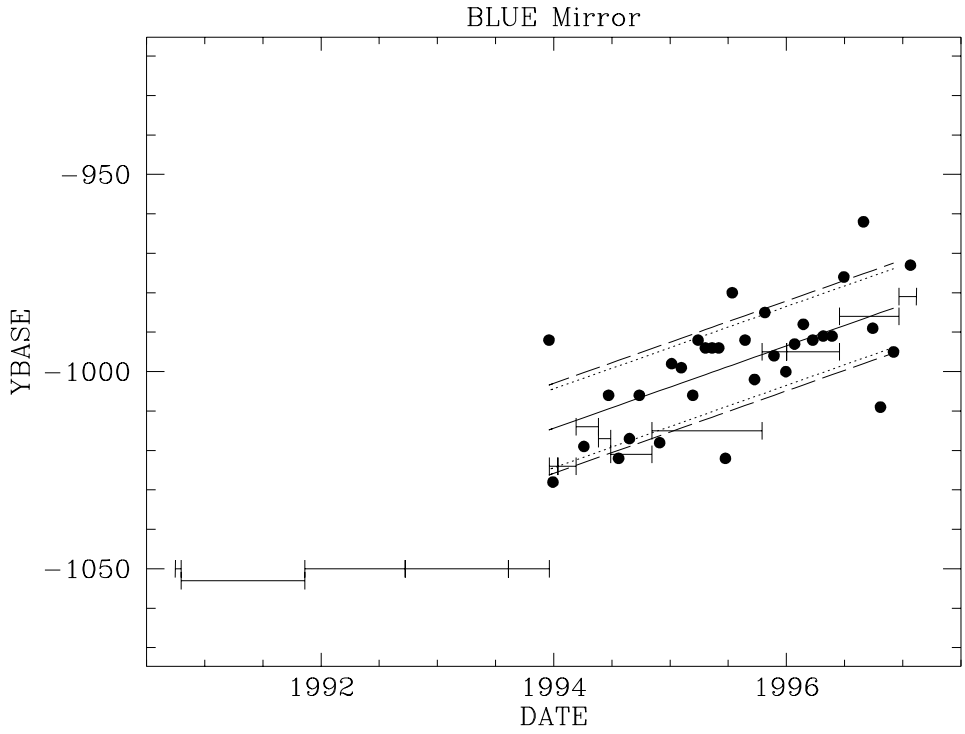
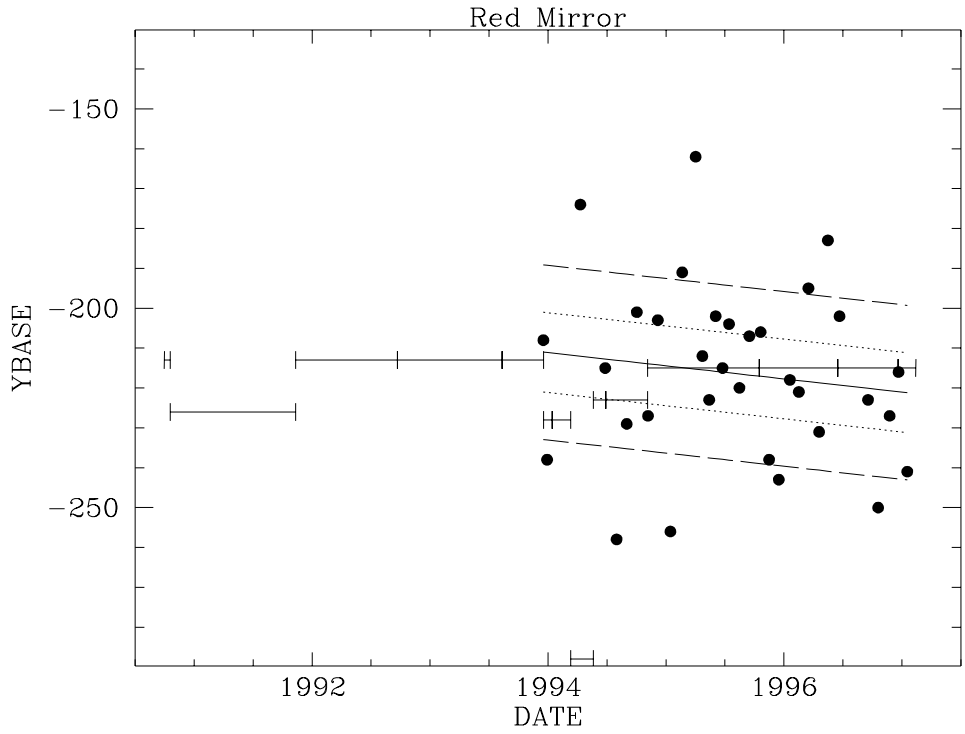



FIGURE 1 (cont.). The optimal YBASE values as a function of time with best linear fits. The dashed lines are +/- 1σ ybase units from the best fit straight line while the dotted lines are +/- 10 ybase units representing the possible range in the YBASE values due to filter-grating wheel non-repeatability. The horizontal 'error bar' style lines are the PDB YBASE values.




FIGURES 1 (upper) and 2 (lower). The optimal YBASE values as a function of time with best linear fits. The dashed lines are +/- 1σ ybase units from the best fit straight line while the dotted lines are +/- 10 ybase units representing the possible range in the YBASE values due to filter-grating wheel non-repeatability. The horizontal 'error bar' style lines are the PDB YBASE values. Mirror measurements were not performed prior to 1994.

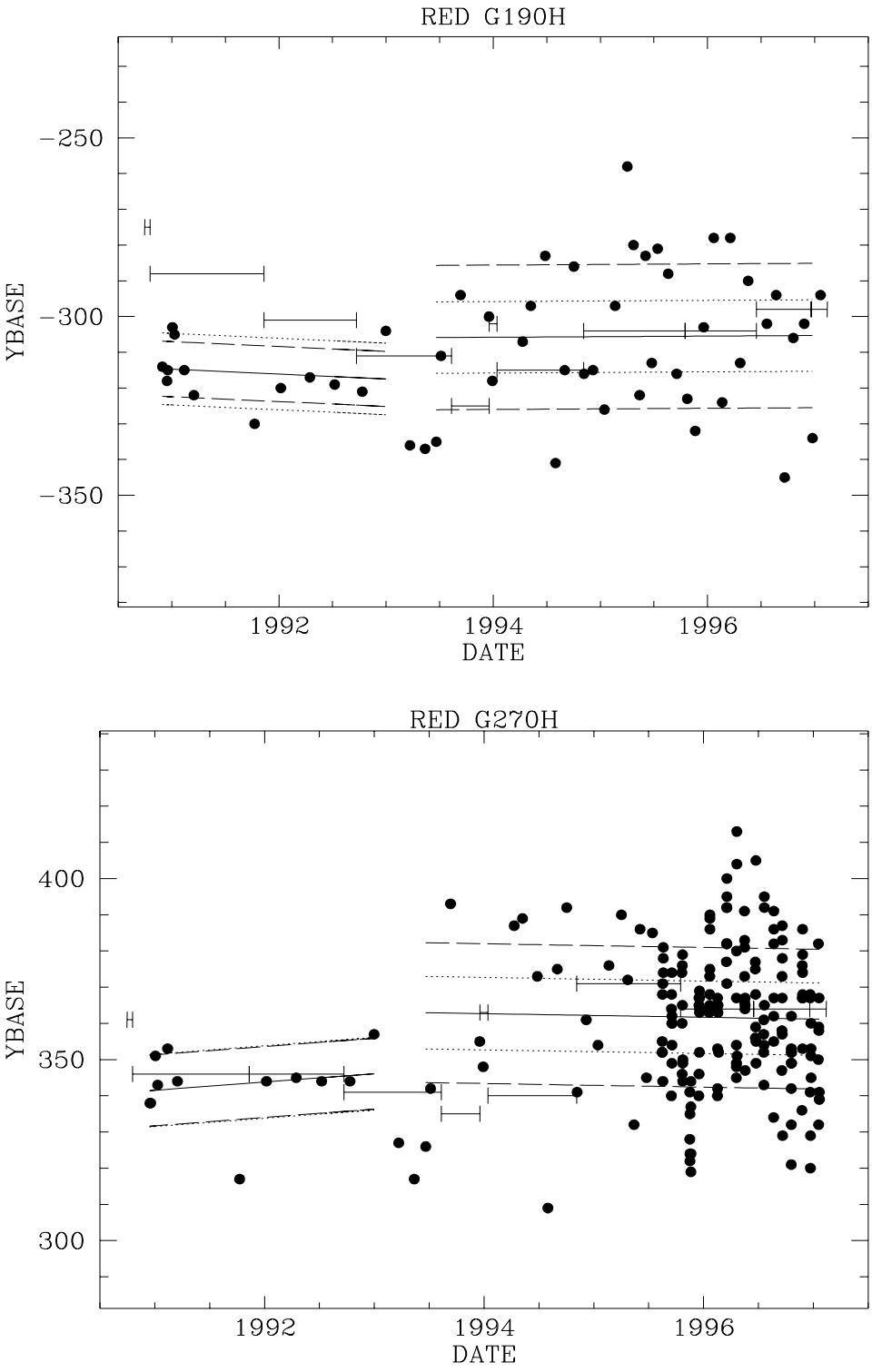



FIGURE 2. (cont.) The optimal YBASE values as a function of time with best linear fits. The dashed lines are +/- 1σ ybase units from the best fit straight line while the dotted lines are +/- 10 ybase units representing the possible range in the YBASE values due to filter-grating wheel non-repeatability. The horizontal 'error bar' style lines are the PDB YBASE values.

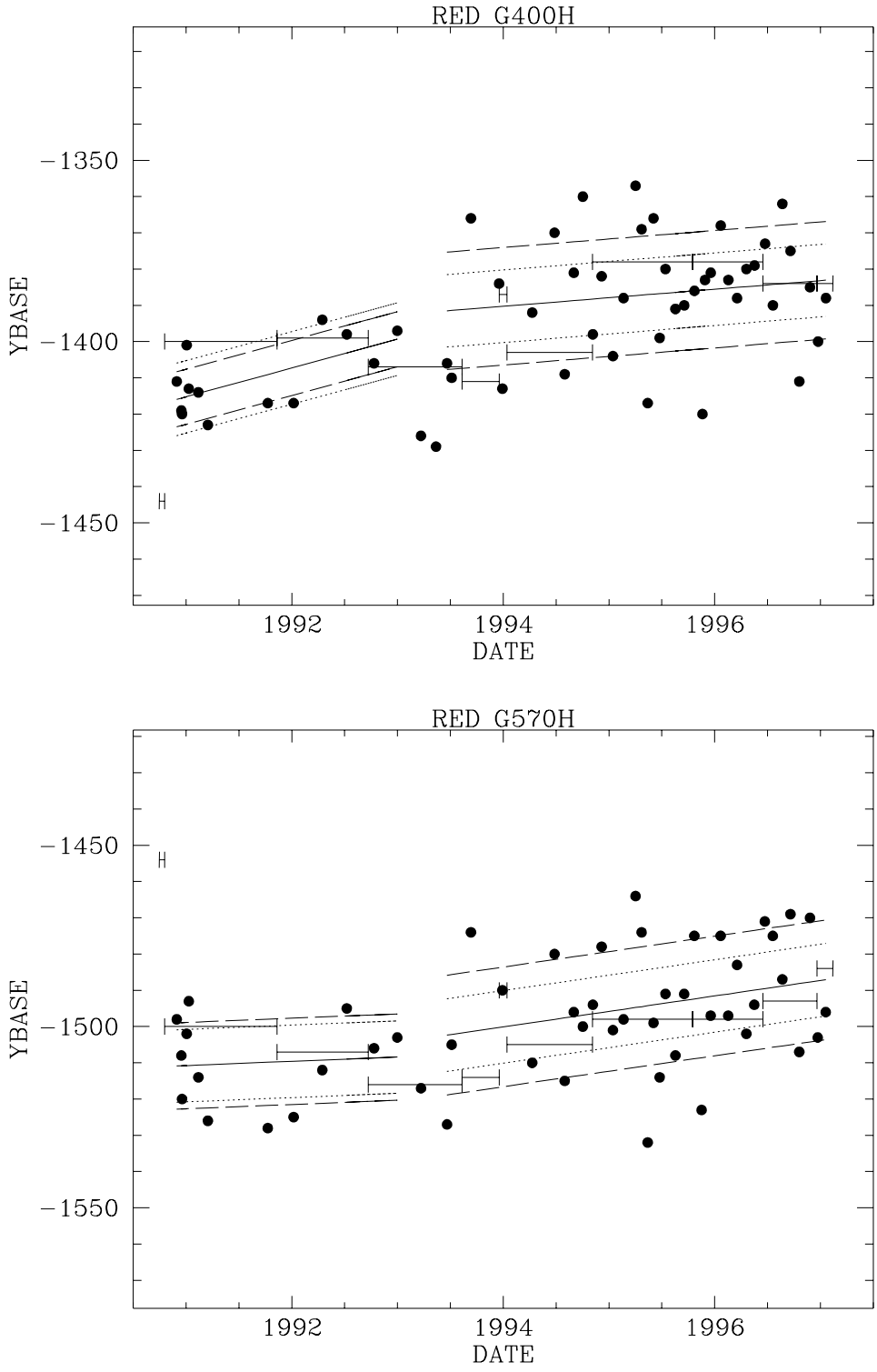



FIGURE 2 (cont.). The optimal YBASE values as a function of time with best linear fits. The dashed lines are +/- 1σ ybase units from the best fit straight line while the dotted lines are +/- 10 ybase units representing the possible range in the YBASE values due to filter-grating wheel non-repeatability. The horizontal 'error bar' style lines are the PDB YBASE values.

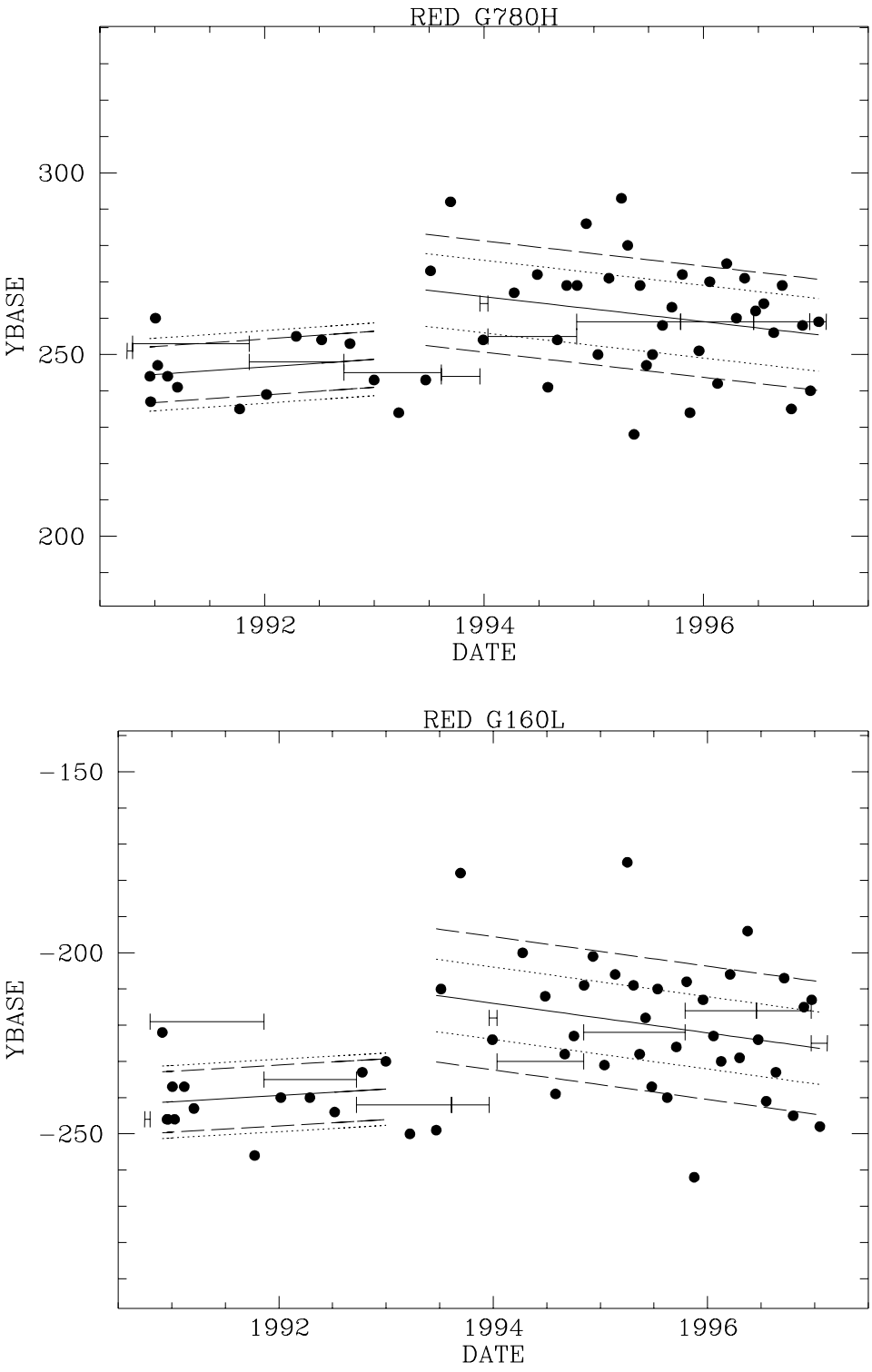



FIGURE 2 (cont.). The optimal YBASE values as a function of time with best linear fits. The dashed lines are +/- 1σ ybase units from the best fit straight line while the dotted lines are +/- 10 ybase units representing the possible range in the YBASE values due to filter-grating wheel non-repeatability. The horizontal 'error bar' style lines are the PDB YBASE values.

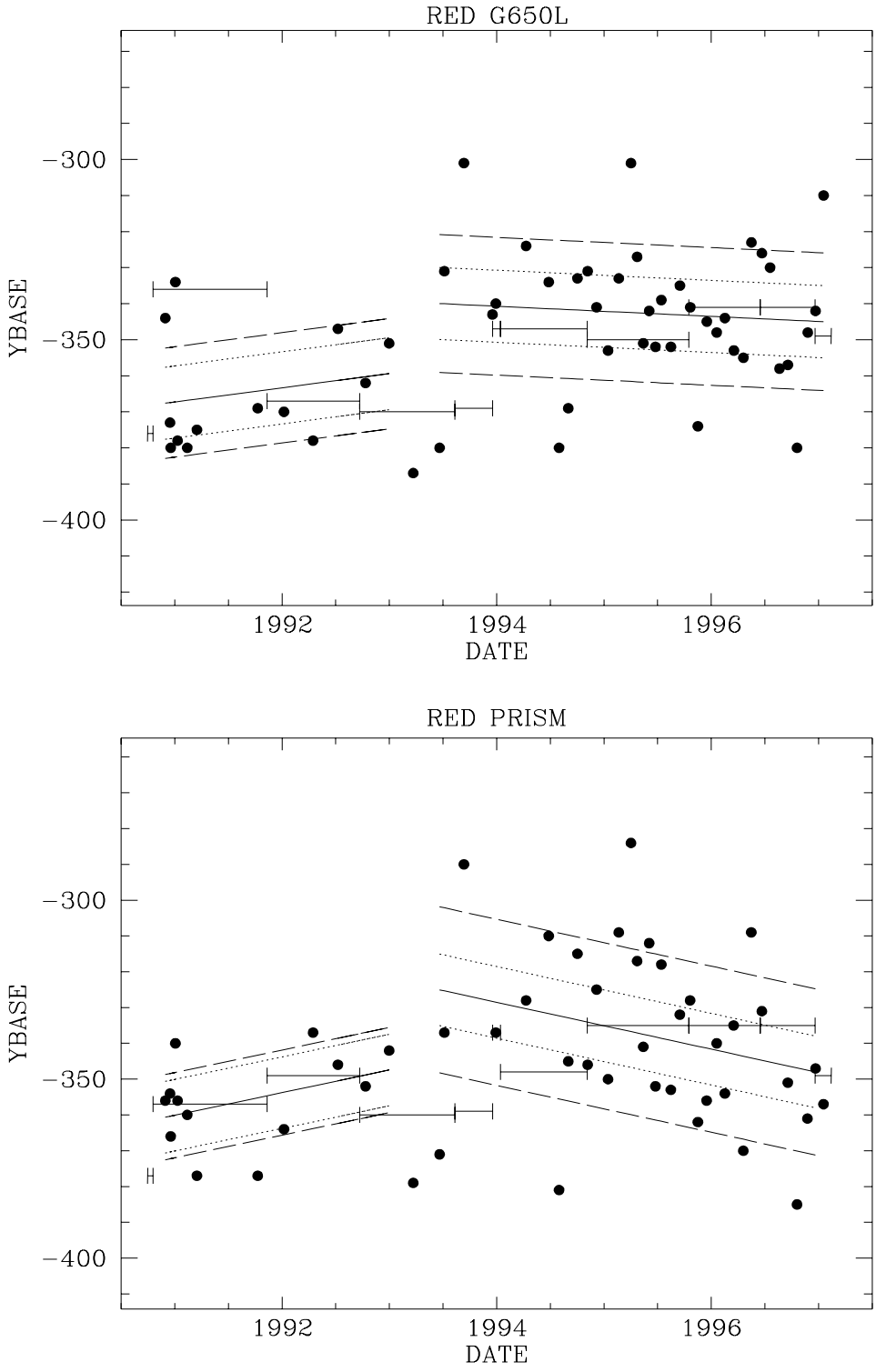



FIGURE 2 (cont.). The optimal YBASE values as a function of time with best linear fits. The dashed lines are +/- 1σ ybase units from the best fit straight line while the dotted lines are +/- 10 ybase units representing the possible range in the YBASE values due to filter-grating wheel non-repeatability. The horizontal 'error bar' style lines are the PDB YBASE values.

**Table 1: Diode range (0-indexed) used to measure optimal YBASE.**

| Disperser | Blueside | Redside |
|---|---|---|
| MIRROR | 230-250 | 260-280 |
| G130H | 100-511 | N/A |
| G190H | 0-511 | 0-480 |
| G270H | 0-511 | 0-511 |
| G400H | 0-511 | 0-511 |
| G570H | 0-310 | 0-511 |
| G780H | N/A | 250-511 |
| G160L | 300-511 | 0-120 |
| G650L | 290-511 | 50-220 |
| PRISM | 20-140 | 370-500 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G130H** | | | | | |
| y26d0f09t | 49684.4 | -617 | 35 | -0.074 | -4.207 |
| y26d0h09p | 49722.0 | -605 | 33 | -0.073 | -7.884 |
| y26d0j09t | 49752.3 | -603 | 39 | -0.086 | -4.207 |
| y26d0l09t | 49788.3 | -624 | 26 | -0.058 | -2.584 |
| y2nc0509t | 49890.7 | -621 | 32 | -0.070 | -5.356 |
| y2nc0409t | 49869.7 | -607 | 30 | -0.067 | -3.114 |
| y2nc0309t | 49848.8 | -614 | 37 | -0.081 | -2.062 |
| y2nc0209t | 49827.8 | -616 | 36 | -0.079 | -2.062 |
| y2nc0109t | 49804.9 | -603 | 33 | -0.073 | -3.114 |
| y2nc0609t | 49912.0 | -574 | 32 | -0.071 | -3.114 |
| y2ti1802p | 49954.9 | -598 | 36 | -0.079 | -3.114 |
| y2ti2802t | 49985.0 | -594 | 37 | -0.081 | -2.062 |
| y2ti3802t | 50018.2 | -610 | 27 | -0.054 | -5.955 |
| y2ti4802t | 50046.4 | -629 | 23 | -0.043 | -1.547 |
| y2ti5802t | 50082.5 | -611 | 29 | -0.037 | -2.584 |
| y2ti6802t | 50110.2 | -605 | 30 | -0.064 | -3.114 |
| y2ti7802t | 50136.0 | -593 | 30 | -0.054 | -4.207 |
| y2ti8802t | 50168.4 | -593 | 33 | -0.073 | -3.655 |
| y2ti9802t | 50200.3 | -593 | 37 | -0.082 | -4.772 |
| y2tia802t | 50228.7 | -616 | 33 | -0.074 | -2.584 |
| y2tib802t | 50264.9 | -582 | 37 | -0.081 | -2.062 |
| y2tic802t | 50290.1 | -599 | 36 | -0.071 | -3.114 |
| y3ee0802t | 50327.7 | -593 | 33 | -0.072 | -1.547 |
| y3ee2402t | 50355.5 | -612 | 27 | -0.053 | -1.547 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G130H Continued** | | | | | |
| y3ee3202t | 50378.1 | -612 | 26 | -0.052 | -3.655 |
| y3ee4002t | 50418.6 | -617 | 25 | -0.053 | -2.584 |
| y3ee4802t | 50447.0 | -573 | 26 | -0.050 | -3.655 |
| y3ee5602t | 50469.2 | -575 | 45 | -0.099 | -3.655 |
| **G190H** | | | | | |
| y26d0f08t | 49684.4 | -969 | 29 | 0.028 | -4.207 |
| y26d0h08p | 49722.0 | -983 | 30 | 0.024 | -7.884 |
| y26d0j08t | 49752.3 | -966 | 28 | 0.020 | -4.207 |
| y26d0l08t | 49788.3 | -990 | 32 | 0.031 | -3.114 |
| y2nc0108t | 49804.9 | -992 | 33 | 0.033 | -3.114 |
| y2nc0208t | 49827.8 | -980 | 31 | 0.029 | -2.062 |
| y2nc0308t | 49848.7 | -991 | 31 | 0.028 | -2.062 |
| y2nc0408t | 49869.7 | -995 | 31 | 0.031 | -3.114 |
| y2nc0508t | 49890.7 | -990 | 33 | 0.032 | -5.356 |
| y2nc0608t | 49912.0 | -960 | 27 | 0.016 | -3.114 |
| y2ti1702t | 49954.4 | -965 | 25 | 0.020 | -2.584 |
| y2ti2702t | 49984.8 | -964 | 27 | 0.020 | -2.062 |
| y2ti3702t | 50015.3 | -954 | 27 | 0.024 | -2.062 |
| y2ti4702t | 50046.7 | -987 | 31 | 0.032 | -1.039 |
| y2ti0101t | 50059.9 | -990 | 25 | 0.018 | -7.216 |
| y3200104t | 50082.1 | -969 | 28 | 0.020 | -2.062 |
| y2ti5702t | 50082.4 | -980 | 27 | 0.021 | -2.584 |
| y2ti6702t | 50109.6 | -967 | 30 | 0.033 | -3.655 |
| y2ti7702t | 50135.9 | -952 | 29 | 0.026 | -4.207 |
| y2ti8702t | 50168.1 | -967 | 29 | 0.025 | -3.655 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G190H Continued** | | | | | |
| y2ti9702t | 50198.7 | -966 | 27 | 0.014 | -2.062 |
| y2tia702t | 50226.2 | -956 | 27 | 0.022 | -3.655 |
| y2tib702t | 50264.9 | -939 | 25 | 0.016 | -2.062 |
| y2tic702t | 50289.7 | -966 | 27 | 0.020 | -3.114 |
| y3ee0702t | 50327.6 | -958 | 32 | 0.029 | -1.547 |
| y3ee2302t | 50355.4 | -959 | 33 | 0.025 | -1.547 |
| y3ee3102t | 50377.8 | -948 | 28 | 0.022 | -4.772 |
| y3ee3902t | 50422.5 | -957 | 27 | 0.019 | -4.207 |
| y3ee4702t | 50446.7 | -980 | 25 | 0.013 | -4.772 |
| y3ee5502t | 50471.1 | -950 | 25 | 0.017 | -3.114 |
| **G270H** | | | | | |
| y26d0f07t | 49684.4 | -1620 | 24 | 0.019 | -4.207 |
| y26d0h07p | 49722.0 | -1626 | 27 | 0.020 | -7.884 |
| y26d0j07t | 49752.3 | -1607 | 24 | 0.016 | -4.207 |
| y26d0l07t | 49788.3 | -1624 | 26 | 0.024 | -2.584 |
| y2nc0107t | 49804.9 | -1612 | 27 | 0.022 | -3.114 |
| y2nc0207t | 49827.8 | -1617 | 23 | 0.011 | -2.062 |
| y2nc0307t | 49848.7 | -1617 | 28 | 0.018 | -2.062 |
| y2nc0407t | 49869.7 | -1608 | 29 | 0.023 | -3.114 |
| y2nc0507t | 49890.7 | -1601 | 27 | 0.023 | -5.356 |
| y2nc0607t | 49912.0 | -1592 | 22 | 0.007 | -3.114 |
| y2ti1102t | 49952.2 | -1608 | 21 | 0.006 | -7.884 |
| y2ti1201t | 49952.7 | -1606 | 20 | -0.004 | -5.356 |
| y2ti1301t | 49952.8 | -1588 | 19 | 0.003 | -4.772 |
| y2ti1401t | 49953.1 | -1596 | 18 | 0.007 | -3.114 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y2ti1501t | 49953.7 | -1596 | 17 | -0.000 | -2.062 |
| y2ti1501t | 49953.7 | -1596 | 17 | -0.000 | -2.062 |
| y2ti1601t | 49954.2 | -1591 | 23 | 0.013 | -2.584 |
| y2ti1602t | 49954.2 | -1593 | 21 | 0.008 | -2.584 |
| y2ti1701t | 49954.4 | -1582 | 20 | 0.009 | -2.584 |
| y2ti1801p | 49954.9 | -1584 | 20 | 0.009 | -3.114 |
| y2ti2102t | 49982.0 | -1631 | 19 | 0.000 | -9.307 |
| y2ti2201t | 49982.4 | -1612 | 22 | 0.010 | -7.216 |
| y2ti2301t | 49982.7 | -1587 | 17 | -0.001 | -5.356 |
| y2ti2401t | 49982.8 | -1599 | 21 | 0.002 | -4.772 |
| y2ti2501t | 49983.6 | -1598 | 21 | 0.003 | -2.584 |
| y2ti2601t | 49983.7 | -1587 | 19 | 0.009 | -2.584 |
| y2ti2602t | 49983.7 | -1587 | 20 | 0.007 | -2.584 |
| y2ti2701t | 49984.8 | -1603 | 22 | 0.007 | -2.062 |
| y2ti2801t | 49984.9 | -1599 | 21 | 0.003 | -2.062 |
| y2ti3102t | 50014.3 | -1595 | 21 | 0.010 | -3.114 |
| y2ti3201t | 50014.4 | -1607 | 28 | 0.023 | -2.584 |
| y2ti3301t | 50014.4 | -1605 | 28 | 0.026 | -2.584 |
| y2ti3401t | 50014.5 | -1604 | 29 | 0.033 | -2.584 |
| y2ti3501t | 50015.0 | -1600 | 24 | 0.009 | -1.547 |
| y2ti3601t | 50015.3 | -1580 | 22 | 0.008 | -2.062 |
| y2ti3602t | 50015.3 | -1581 | 21 | 0.006 | -2.062 |
| y2ti3701t | 50015.3 | -1592 | 25 | 0.018 | -2.062 |
| y2ti3801t | 50018.2 | -1618 | 24 | 0.011 | -5.955 |
| y2ti4102t | 50043.1 | -1620 | 25 | 0.017 | -5.356 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y2ti4201t | 50043.3 | -1602 | 22 | 0.009 | -5.356 |
| y2ti4301t | 50043.4 | -1599 | 23 | 0.013 | -5.356 |
| y2ti4401t | 50043.5 | -1590 | 28 | 0.021 | -5.356 |
| y2ti4501t | 50045.0 | -1623 | 24 | 0.018 | -0.534 |
| y2ti4601t | 50046.6 | -1607 | 22 | 0.010 | -1.547 |
| y2ti4602t | 50046.6 | -1606 | 24 | 0.016 | -1.547 |
| y2ti4701t | 50046.7 | -1603 | 26 | 0.017 | -1.039 |
| y2ti4801t | 50046.4 | -1613 | 27 | 0.017 | -1.547 |
| y2ti5102t | 50080.3 | -1616 | 19 | 0.001 | -5.356 |
| y2ti5201t | 50080.5 | -1606 | 20 | 0.007 | -4.207 |
| y2ti5301t | 50080.9 | -1592 | 22 | 0.008 | -3.655 |
| y2ti5401t | 50081.3 | -1593 | 19 | 0.002 | -3.114 |
| y2ti5501t | 50081.5 | -1599 | 22 | 0.006 | -3.114 |
| y2ti5601t | 50081.5 | -1619 | 23 | 0.007 | -3.114 |
| y2ti5602t | 50081.5 | -1618 | 23 | 0.007 | -3.114 |
| y3200101t | 50082.0 | -1593 | 22 | 0.008 | -2.062 |
| y2ti5701t | 50082.4 | -1608 | 22 | 0.015 | -2.584 |
| y2ti5801t | 50082.5 | -1605 | 24 | 0.021 | -2.584 |
| y2ti6102t | 50107.8 | -1605 | 27 | 0.024 | -3.114 |
| y2ti6301t | 50108.8 | -1624 | 27 | 0.020 | -3.655 |
| y2ti6401t | 50108.8 | -1607 | 32 | 0.031 | -3.655 |
| y2ti6501t | 50108.9 | -1611 | 32 | 0.032 | -3.655 |
| y2ti6601t | 50109.0 | -1625 | 29 | 0.028 | -4.207 |
| y2ti6602t | 50109.0 | -1626 | 28 | 0.030 | -4.207 |
| y2ti6701t | 50109.6 | -1597 | 27 | 0.026 | -3.655 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270HG270H Continued** | | | | | |
| y2ti6801t | 50110.2 | -1596 | 25 | 0.026 | -3.114 |
| y2ti7102t | 50135.0 | -1615 | 24 | 0.013 | -3.114 |
| y2ti7201t | 50135.1 | -1605 | 19 | 0.006 | -3.114 |
| y2ti7301t | 50135.1 | -1599 | 19 | 0.005 | -2.584 |
| y2ti7401t | 50135.2 | -1605 | 18 | 0.003 | -2.062 |
| y2ti7501t | 50135.2 | -1596 | 20 | 0.006 | -2.062 |
| y2ti7601t | 50135.9 | -1610 | 21 | 0.009 | -4.207 |
| y2ti7602t | 50135.9 | -1607 | 24 | 0.013 | -4.207 |
| y2ti7701t | 50135.9 | -1602 | 24 | 0.017 | -4.207 |
| y2ti7801t | 50136.0 | -1593 | 22 | 0.013 | -4.207 |
| y2ti8102t | 50164.7 | -1607 | 22 | 0.007 | -4.207 |
| y2ti8201t | 50165.0 | -1593 | 22 | 0.014 | -3.655 |
| y2ti8301t | 50165.7 | -1613 | 28 | 0.021 | -3.114 |
| y2ti8401t | 50166.2 | -1608 | 25 | 0.022 | -2.062 |
| y2ti8501t | 50166.6 | -1596 | 25 | 0.021 | -2.062 |
| y2ti8601t | 50168.0 | -1622 | 25 | 0.015 | -4.207 |
| y2ti8602t | 50168.0 | -1622 | 24 | 0.012 | -4.207 |
| y2ti8701t | 50168.1 | -1601 | 26 | 0.022 | -3.655 |
| y2ti8801t | 50168.4 | -1600 | 21 | 0.012 | -3.655 |
| y2ti9102t | 50197.4 | -1623 | 26 | 0.019 | -5.356 |
| y2ti9201t | 50197.5 | -1616 | 27 | 0.022 | -4.772 |
| y2ti9301t | 50197.7 | -1609 | 24 | 0.013 | -3.655 |
| y2ti9401t | 50197.7 | -1618 | 25 | 0.022 | -3.655 |
| y2ti9501t | 50197.8 | -1603 | 26 | 0.017 | -3.114 |
| y2ti9601t | 50197.9 | -1602 | 25 | 0.014 | -3.114 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y2ti9602t | 50197.9 | -1601 | 27 | 0.022 | -3.114 |
| y2ti9701t | 50198.7 | -1598 | 25 | 0.017 | -2.062 |
| y2ti9801t | 50200.3 | -1579 | 19 | 0.005 | -4.772 |
| y2tia102t | 50225.3 | -1610 | 19 | 0.008 | -5.356 |
| y2tia201t | 50225.5 | -1603 | 21 | 0.009 | -4.772 |
| y2tia301t | 50225.7 | -1601 | 24 | 0.014 | -4.207 |
| y2tia401t | 50225.7 | -1604 | 23 | 0.016 | -4.207 |
| y2tia501t | 50225.8 | -1614 | 25 | 0.012 | -4.207 |
| y2tia601t | 50225.9 | -1603 | 25 | 0.016 | -4.207 |
| y2tia602t | 50225.9 | -1601 | 25 | 0.020 | -4.207 |
| y2tia701t | 50226.2 | -1598 | 21 | 0.010 | -3.655 |
| y2tia801t | 50228.7 | -1615 | 26 | 0.019 | -3.114 |
| y2tib102t | 50262.2 | -1598 | 21 | 0.009 | -7.216 |
| y2tib201t | 50264.1 | -1587 | 21 | 0.010 | -2.584 |
| y2tib301t | 50264.1 | -1585 | 22 | 0.010 | -2.584 |
| y2tib401t | 50264.7 | -1592 | 19 | 0.000 | -3.114 |
| y2tib501t | 50264.7 | -1595 | 19 | 0.003 | -3.114 |
| y2tib601t | 50264.8 | -1584 | 17 | 0.001 | -2.584 |
| y2tib602t | 50264.8 | -1580 | 20 | 0.007 | -2.584 |
| y2tib701t | 50264.9 | -1587 | 20 | 0.009 | -2.062 |
| y2tib801t | 50264.9 | -1598 | 20 | -0.001 | -2.062 |
| y2tic201t | 50287.9 | -1603 | 22 | 0.011 | -4.207 |
| y2tic301t | 50288.7 | -1601 | 20 | 0.008 | -4.207 |
| y2tic401t | 50288.9 | -1599 | 20 | 0.006 | -4.207 |
| y2tic501t | 50289.1 | -1596 | 21 | 0.008 | -3.655 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y2tic601t | 50289.3 | -1593 | 21 | 0.008 | -3.114 |
| y2tic602t | 50289.3 | -1594 | 22 | 0.008 | -3.114 |
| y2tic701t | 50289.7 | -1587 | 19 | 0.002 | -3.114 |
| y2tic801t | 50290.1 | -1596 | 22 | 0.011 | -3.114 |
| y3ee0102t | 50323.8 | -1581 | 23 | 0.014 | -2.584 |
| y3ee0201t | 50323.9 | -1585 | 24 | 0.015 | -2.062 |
| y3ee0301t | 50324.7 | -1614 | 23 | 0.008 | -2.062 |
| y3ee0401t | 50324.8 | -1620 | 27 | 0.030 | -2.062 |
| y3ee0501t | 50325.9 | -1623 | 25 | 0.017 | -3.114 |
| y3ee0601t | 50327.6 | -1614 | 24 | 0.018 | -1.547 |
| y3ee0602t | 50327.6 | -1612 | 27 | 0.017 | -1.547 |
| y3ee0701t | 50327.6 | -1608 | 27 | 0.020 | -1.547 |
| y3ee0801t | 50327.7 | -1623 | 27 | 0.022 | -1.547 |
| y3ee1702t | 50352.8 | -1608 | 22 | 0.010 | -3.114 |
| y3ee1801t | 50353.1 | -1583 | 18 | -0.001 | -2.584 |
| y3ee1901t | 50353.6 | -1610 | 28 | 0.025 | -1.547 |
| y3ee2001t | 50353.7 | -1607 | 24 | 0.017 | -1.039 |
| y3ee2101t | 50354.3 | -1601 | 26 | 0.022 | -1.547 |
| y3ee2201t | 50354.7 | -1585 | 22 | 0.008 | -2.062 |
| y3ee2202t | 50354.7 | -1582 | 23 | 0.017 | -2.062 |
| y3ee2301t | 50355.3 | -1610 | 28 | 0.024 | -1.547 |
| y3ee2401t | 50355.5 | -1608 | 26 | 0.022 | -1.547 |
| y3ee2502t | 50377.1 | -1610 | 22 | 0.007 | -8.580 |
| y3ee2601t | 50377.1 | -1597 | 23 | 0.010 | -8.580 |
| y3ee2701t | 50377.2 | -1597 | 23 | 0.013 | -8.580 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y3ee2801t | 50377.2 | -1598 | 24 | 0.014 | -7.884 |
| y3ee2901t | 50377.3 | -1595 | 22 | 0.006 | -7.216 |
| y3ee3001t | 50377.8 | -1603 | 22 | 0.009 | -4.772 |
| y3ee3002t | 50377.8 | -1601 | 22 | 0.010 | -4.772 |
| y3ee3101t | 50377.8 | -1583 | 21 | 0.009 | -4.772 |
| y3ee3201t | 50378.1 | -1616 | 26 | 0.023 | -3.655 |
| y3ee3302t | 50418.2 | -1618 | 27 | 0.019 | -5.356 |
| y3ee3401t | 50419.5 | -1595 | 19 | 0.004 | -5.955 |
| y3ee3501t | 50419.8 | -1580 | 18 | 0.003 | -4.207 |
| y3ee3601t | 50420.1 | -1571 | 20 | 0.002 | -3.114 |
| y3ee3701t | 50420.5 | -1576 | 18 | 0.002 | -1.547 |
| y3ee3801t | 50420.9 | -1596 | 21 | -0.004 | -1.039 |
| y3ee3802t | 50420.9 | -1595 | 18 | 0.001 | -1.039 |
| y3ee3901t | 50422.5 | -1596 | 21 | 0.005 | -4.207 |
| y3ee4001t | 50418.6 | -1593 | 22 | 0.008 | -2.584 |
| y3ee4201t | 50444.1 | -1612 | 28 | 0.019 | -2.062 |
| y3ee4301t | 50444.2 | -1622 | 29 | 0.028 | -2.062 |
| y3ee4401t | 50445.0 | -1619 | 27 | 0.019 | -1.547 |
| y3ee4501t | 50445.0 | -1596 | 30 | 0.028 | -1.547 |
| y3ee4601t | 50445.6 | -1596 | 24 | 0.019 | -1.039 |
| y3ee4602t | 50445.6 | -1598 | 24 | 0.015 | -1.039 |
| y3ee4701t | 50446.7 | -1590 | 23 | 0.013 | -4.772 |
| y3ee4801t | 50447.0 | -1561 | 20 | 0.011 | -3.655 |
| y3ee4902t | 50471.2 | -1593 | 21 | 0.009 | -2.062 |
| y3ee5001t | 50471.9 | -1613 | 27 | 0.020 | -1.039 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y3ee5101t | 50473.7 | -1615 | 26 | 0.021 | -0.534 |
| y3ee5201t | 50473.9 | -1616 | 26 | 0.018 | -0.534 |
| y3ee5301t | 50474.1 | -1608 | 27 | 0.018 | -1.039 |
| y3ee5401t | 50468.5 | -1592 | 21 | 0.004 | -4.772 |
| y3ee5402t | 50468.5 | -1591 | 21 | 0.005 | -4.772 |
| y3ee5501t | 50471.1 | -1591 | 18 | 0.002 | -3.114 |
| y3ee5601t | 50469.1 | -1580 | 21 | 0.009 | -3.655 |
| **G400H** | | | | | |
| y26d0f06t | 49684.4 | 317 | 23 | -0.004 | -4.207 |
| y26d0h06t | 49722.0 | 297 | 22 | -0.004 | -7.884 |
| y26d0j06t | 49752.3 | 323 | 22 | -0.015 | -4.207 |
| y26d0l06t | 49788.3 | 309 | 23 | -0.000 | -3.114 |
| y2nc0106t | 49804.9 | 317 | 21 | -0.007 | -3.114 |
| y2nc0206t | 49827.8 | 303 | 22 | -0.008 | -2.062 |
| y2nc0306t | 49848.7 | 302 | 20 | -0.006 | -2.062 |
| y2nc0406t | 49869.7 | 328 | 22 | -0.001 | -3.114 |
| y2nc0506t | 49890.7 | 296 | 18 | -0.003 | -5.356 |
| y2nc0606t | 49912.0 | 327 | 23 | -0.003 | -3.114 |
| y2ti1502t | 49953.7 | 337 | 25 | -0.021 | -2.062 |
| y2ti2502t | 49983.6 | 337 | 25 | -0.023 | -2.584 |
| y2ti3502t | 50015.0 | 329 | 22 | -0.005 | -1.547 |
| y2ti4502t | 50045.0 | 299 | 20 | -0.006 | -0.534 |
| y2ti5502t | 50081.5 | 329 | 24 | -0.009 | -3.114 |
| y3200107t | 50082.1 | 325 | 21 | -0.008 | -2.062 |
| y2ti6502t | 50108.9 | 310 | 22 | 0.005 | -3.655 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G400H Continued** | | | | | |
| y2ti7502t | 50135.2 | 347 | 22 | -0.015 | -2.062 |
| y2ti8502t | 50166.6 | 323 | 22 | -0.002 | -2.062 |
| y2ti9502t | 50197.8 | 335 | 19 | -0.000 | -3.114 |
| y2tia502t | 50225.8 | 341 | 21 | -0.006 | -4.207 |
| y2tib502t | 50264.7 | 344 | 20 | -0.014 | -3.114 |
| y2tic502t | 50289.1 | 348 | 22 | -0.019 | -3.655 |
| y3ee0502t | 50325.9 | 325 | 20 | -0.002 | -3.114 |
| y3ee2102t | 50354.3 | 336 | 20 | -0.010 | -1.547 |
| y3ee2902t | 50377.3 | 337 | 23 | -0.010 | -7.216 |
| y3ee3702t | 50420.5 | 348 | 20 | -0.021 | -1.547 |
| y3ee4502t | 50445.0 | 326 | 18 | -0.000 | -1.547 |
| y3ee5302t | 50474.1 | 325 | 20 | -0.001 | -0.534 |
| **G570H** | | | | | |
| y26d0f05t | 49684.4 | 255 | 16 | -0.015 | -4.207 |
| y26d0h05t | 49722.0 | 253 | 16 | -0.010 | -7.884 |
| y26d0j05t | 49752.2 | 280 | 16 | 0.004 | -4.207 |
| y26d0l05t | 49788.3 | 268 | 13 | -0.000 | -3.114 |
| y2nc0105t | 49804.9 | 279 | 16 | -0.011 | -3.114 |
| y2nc0205t | 49827.8 | 283 | 15 | -0.015 | -2.062 |
| y2nc0305t | 49848.7 | 268 | 13 | -0.012 | -2.062 |
| y2nc0405t | 49869.7 | 280 | 14 | -0.002 | -3.114 |
| y2nc0505t | 49890.7 | 266 | 16 | -0.011 | -5.356 |
| y2nc0605t | 49912.0 | 299 | 17 | -0.022 | -3.114 |
| y2ti1402t | 49953.1 | 305 | 17 | -0.022 | -3.114 |
| y2ti2402t | 49982.8 | 304 | 16 | -0.019 | -4.772 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G570H Continued** | | | | | |
| y2ti3402t | 50014.5 | 273 | 15 | -0.000 | -2.584 |
| y2ti4402t | 50043.5 | 296 | 15 | -0.015 | -5.356 |
| y2ti5402t | 50081.3 | 297 | 17 | -0.024 | -3.114 |
| y2ti6402t | 50108.8 | 261 | 14 | 0.000 | -3.655 |
| y2ti7402t | 50135.2 | 291 | 17 | -0.020 | -2.584 |
| y2ti8402t | 50166.2 | 306 | 16 | -0.004 | -2.062 |
| y2ti9402t | 50197.7 | 273 | 14 | -0.017 | -3.655 |
| y2tia402t | 50225.7 | 294 | 15 | -0.011 | -4.207 |
| y2tib402t | 50264.7 | 313 | 16 | -0.018 | -3.114 |
| y2tic402t | 50288.9 | 299 | 18 | -0.031 | -4.207 |
| y3ee0402t | 50324.8 | 274 | 15 | -0.008 | -2.062 |
| y3ee2002t | 50353.7 | 279 | 15 | -0.013 | -1.039 |
| y3ee2802t | 50377.2 | 269 | 15 | -0.012 | -7.884 |
| y3ee3602t | 50420.1 | 302 | 17 | -0.022 | -3.114 |
| y3ee4402t | 50445.0 | 279 | 14 | -0.005 | -1.547 |
| y3ee5202t | 50473.9 | 277 | 16 | -0.006 | -0.534 |
| **G160L** | | | | | |
| y26d0f04t | 49684.4 | -888 | 29 | 0.005 | -4.207 |
| y26d0h04t | 49722.0 | -878 | 25 | -0.018 | -7.884 |
| y26d0j04t | 49752.2 | -863 | 28 | 0.038 | -4.207 |
| y26d0l04t | 49788.3 | -906 | 69 | 0.183 | -3.114 |
| y2nc0104t | 49804.9 | -867 | 44 | 0.085 | -3.114 |
| y2nc0204t | 49827.8 | -841 | 24 | -0.024 | -2.062 |
| y2nc0304t | 49848.7 | -887 | 24 | -0.052 | -2.062 |
| y2nc0404t | 49869.7 | -867 | 33 | 0.055 | -3.114 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G160L Continued** | | | | | |
| y2nc0504t | 49890.7 | -886 | 57 | 0.144 | -5.356 |
| y2nc0604t | 49912.0 | -870 | 46 | 0.079 | -3.114 |
| y2ti1302t | 49952.8 | -842 | 27 | -0.000 | -4.772 |
| y2ti2302t | 49982.7 | -837 | 45 | 0.085 | -5.356 |
| y2ti3302t | 50014.4 | -873 | 52 | 0.128 | -2.584 |
| y2ti4302t | 50043.4 | -846 | 19 | -0.076 | -5.356 |
| y2ti5302t | 50080.9 | -835 | 26 | 0.012 | -4.207 |
| y2ti6302t | 50108.8 | -873 | 43 | 0.096 | -3.655 |
| y2ti7302t | 50135.1 | -848 | 29 | 0.037 | -2.584 |
| y2ti8302t | 50165.7 | -900 | 48 | 0.119 | -3.114 |
| y2ti9302t | 50197.7 | -871 | 37 | 0.052 | -3.655 |
| y2tia302t | 50225.7 | -849 | 29 | 0.022 | -4.207 |
| y2tib302t | 50264.1 | -836 | 23 | 0.011 | -2.584 |
| y2tic302t | 50288.7 | -852 | 50 | 0.104 | -4.207 |
| y3ee0302t | 50324.7 | -885 | 59 | 0.155 | -2.062 |
| y3ee1902t | 50353.6 | -862 | 39 | 0.026 | -1.547 |
| y3ee2702t | 50377.2 | -849 | 23 | 0.003 | -7.884 |
| y3ee3502t | 50419.8 | -826 | 21 | -0.005 | -4.207 |
| y3ee4302t | 50444.2 | -864 | 45 | 0.117 | -2.062 |
| y3ee5102t | 50473.7 | -884 | 48 | 0.118 | -0.534 |
| **G650L** | | | | | |
| y26d0f03t | 49684.4 | -682 | 26 | 0.101 | -4.207 |
| y26d0h03t | 49722.0 | -673 | 29 | 0.118 | -7.884 |
| y26d0j03t | 49752.2 | -665 | 27 | 0.084 | -4.207 |
| y26d0l03t | 49788.3 | -683 | 34 | 0.140 | -3.114 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G650L Continued** | | | | | |
| y2nc0103t | 49804.9 | -673 | 30 | 0.125 | -3.114 |
| y2nc0203t | 49827.8 | -655 | 27 | 0.081 | -2.062 |
| y2nc0303t | 49848.7 | -679 | 29 | 0.113 | -2.062 |
| y2nc0403t | 49869.7 | -671 | 28 | 0.082 | -3.114 |
| y2nc0503t | 49890.7 | -682 | 30 | 0.124 | -5.356 |
| y2nc0603t | 49912.0 | -647 | 28 | 0.098 | -3.114 |
| y2ti1202t | 49952.7 | -648 | 26 | 0.096 | -5.356 |
| y2ti2202t | 49982.4 | -665 | 26 | 0.099 | -7.216 |
| y2ti3202t | 50014.4 | -666 | 28 | 0.058 | -2.584 |
| y2ti4202t | 50043.3 | -664 | 28 | 0.080 | -5.356 |
| y2ti5202t | 50080.5 | -663 | 25 | 0.088 | -4.207 |
| y2ti7202t | 50135.1 | -660 | 26 | 0.090 | -3.114 |
| y2ti8202t | 50165.0 | -646 | 26 | 0.082 | -3.655 |
| y2ti9202t | 50197.5 | -665 | 30 | 0.112 | -4.772 |
| y2tia202t | 50225.5 | -639 | 25 | 0.094 | -4.772 |
| y2tib202t | 50264.1 | -633 | 26 | 0.086 | -2.584 |
| y2tic202t | 50287.9 | -649 | 27 | 0.025 | -4.207 |
| y3ee0202t | 50323.9 | -647 | 27 | 0.066 | -2.062 |
| y3ee1802t | 50353.1 | -629 | 28 | 0.016 | -2.584 |
| y3ee2602t | 50377.1 | -663 | 29 | 0.084 | -8.580 |
| y3ee3402t | 50419.5 | -658 | 28 | 0.083 | -5.955 |
| y3ee4202t | 50444.2 | -664 | 29 | 0.094 | -2.062 |
| y3ee5002t | 50472.0 | -671 | 29 | 0.098 | -1.039 |
| **Prism** | | | | | |
| y26d0f02t | 49684.3 | -736 | 27 | -0.197 | -4.207 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **Prism Continued** | | | | | |
| y26d0h02t | 49722.0 | -735 | 33 | -0.243 | -7.884 |
| y26d0j02t | 49752.2 | -737 | 21 | -0.154 | -4.207 |
| y26d0l02t | 49788.3 | -735 | 23 | -0.158 | -3.114 |
| y2nc0102t | 49804.9 | -725 | 24 | -0.164 | -3.114 |
| y2nc0202t | 49827.8 | -738 | 16 | -0.113 | -2.062 |
| y2nc0302t | 49848.7 | -733 | 16 | -0.118 | -2.062 |
| y2nc0402t | 49869.7 | -742 | 23 | -0.167 | -3.114 |
| y2nc0502t | 49890.7 | -756 | 18 | -0.123 | -5.356 |
| y2nc0602t | 49912.0 | -721 | 27 | -0.199 | -3.114 |
| y2ti1103t | 49952.2 | -732 | 30 | -0.213 | -7.884 |
| y2ti2103t | 49982.0 | -730 | 20 | -0.152 | -9.307 |
| y2ti3103t | 50014.3 | -717 | 13 | -0.087 | -3.114 |
| y2ti5103t | 50080.3 | -734 | 22 | -0.164 | -5.356 |
| y2ti6103t | 50107.8 | -738 | 20 | -0.142 | -3.114 |
| y2ti7103t | 50135.0 | -731 | 21 | -0.152 | -3.114 |
| y2ti8103t | 50164.7 | -730 | 23 | -0.176 | -4.207 |
| y2ti9103t | 50197.4 | -744 | 17 | -0.129 | -5.356 |
| y2tia103t | 50225.3 | -725 | 22 | -0.167 | -5.356 |
| y2tib103t | 50262.2 | -723 | 21 | -0.154 | -7.216 |
| y3ee0103t | 50323.8 | -718 | 18 | -0.134 | -2.584 |
| y3ee1703t | 50352.8 | -719 | 18 | -0.126 | -3.114 |
| y3ee2503t | 50377.1 | -737 | 21 | -0.160 | -8.580 |
| y3ee3303t | 50418.2 | -748 | 14 | -0.101 | -4.772 |
| y3ee4103t | 50443.3 | -758 | 17 | -0.116 | -2.584 |
| y3ee4903t | 50471.3 | -717 | 17 | -0.122 | -2.062 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **Mirror** | | | | | |
| y26d0f01t | 49684.3 | -1018 | N/A | N/A | -4.207 |
| y26d0h01t | 49722.0 | -998 | N/A | N/A | -7.884 |
| y26d0j01t | 49752.2 | -999 | N/A | N/A | -4.207 |
| y26d0l01t | 49788.2 | -1006 | N/A | N/A | -2.584 |
| y2nc0101t | 49804.9 | -992 | N/A | N/A | -3.114 |
| y2nc0201t | 49827.8 | -994 | N/A | N/A | -2.062 |
| y2nc0301t | 49848.7 | -994 | N/A | N/A | -2.062 |
| y2nc0401t | 49869.7 | -994 | N/A | N/A | -3.114 |
| y2nc0501t | 49890.7 | -1022 | N/A | N/A | -5.356 |
| y2nc0601t | 49912.0 | -980 | N/A | N/A | -3.114 |
| y2ti1101t | 49952.2 | -992 | N/A | N/A | -7.884 |
| y2ti2101t | 49982.0 | -1002 | N/A | N/A | -9.307 |
| y2ti3101t | 50014.3 | -985 | N/A | N/A | -3.114 |
| y2ti4101t | 50043.1 | -996 | N/A | N/A | -5.356 |
| y2ti5101t | 50080.3 | -1000 | N/A | N/A | -5.356 |
| y2ti6101t | 50107.8 | -993 | N/A | N/A | -3.114 |
| y2ti7101t | 50135.0 | -988 | N/A | N/A | -3.114 |
| y2ti8101t | 50164.7 | -992 | N/A | N/A | -4.207 |
| y2ti9101t | 50197.4 | -991 | N/A | N/A | -5.356 |
| y2tia101t | 50225.3 | -991 | N/A | N/A | -5.356 |
| y2tib101t | 50262.2 | -976 | N/A | N/A | -7.216 |
| y3ee0101t | 50323.8 | -962 | N/A | N/A | -2.584 |
| y3ee1701t | 50352.8 | -989 | N/A | N/A | -3.114 |
| y3ee2501t | 50377.1 | -1009 | N/A | N/A | -8.580 |
| y3ee3301t | 50418.2 | -995 | N/A | N/A | -4.772 |

**Table 2: Blueside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **Mirror Continued** | | | | | |
| y3ee4901t | 50471.2 | -973 | N/A | N/A | -2.062 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **Mirror** | | | | | |
| y26d0e01t | 49661.5 | -227 | N/A | N/A | -3.114 |
| y26d0g01t | 49691.7 | -203 | N/A | N/A | -4.207 |
| y26d0i01t | 49730.8 | -256 | N/A | N/A | -7.216 |
| y26d0k01t | 49767.3 | -191 | N/A | N/A | -4.207 |
| y2nc0701t | 49808.9 | -162 | N/A | N/A | -2.062 |
| y2nc0801t | 49829.7 | -212 | N/A | N/A | -9.307 |
| y2nc0901t | 49850.7 | -223 | N/A | N/A | -5.955 |
| y2nc0a01t | 49870.8 | -202 | N/A | N/A | -1.039 |
| y2nc0b01t | 49892.0 | -215 | N/A | N/A | -9.307 |
| y2nc0c01t | 49912.1 | -204 | N/A | N/A | -4.772 |
| y2tj1101t | 49944.4 | -220 | N/A | N/A | -4.207 |
| y2tj2101t | 49975.0 | -207 | N/A | N/A | -5.356 |
| y2tj3101t | 50010.0 | -206 | N/A | N/A | -5.955 |
| y2tj4101t | 50036.2 | -238 | N/A | N/A | -1.547 |
| y2tj5101t | 50066.1 | -243 | N/A | N/A | -3.655 |
| y2tj6101t | 50100.3 | -218 | N/A | N/A | -4.207 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **Mirror Continued** | | | | | |
| y2tj7101t | 50128.1 | -221 | N/A | N/A | -8.580 |
| y2tj8101t | 50157.8 | -195 | N/A | N/A | -1.547 |
| y2tj9101t | 50191.0 | -231 | N/A | N/A | -7.884 |
| y2tja101t | 50218.0 | -183 | N/A | N/A | -2.584 |
| y2tjb101t | 50254.0 | -202 | N/A | N/A | -7.884 |
| y3eg1701t | 50342.2 | -223 | N/A | N/A | -4.207 |
| y3eg2501t | 50373.6 | -250 | N/A | N/A | -4.207 |
| y3eg3301p | 50409.1 | -227 | N/A | N/A | -4.207 |
| y3eg4101t | 50436.5 | -216 | N/A | N/A | -7.216 |
| y3eg4901t | 50463.6 | -241 | N/A | N/A | -3.114 |
| **G190H** | | | | | |
| y26d0e09t | 49661.5 | -316 | 48 | 0.080 | -3.114 |
| y26d0g09t | 49691.8 | -315 | 45 | 0.073 | -4.207 |
| y26d0i09t | 49730.8 | -326 | 44 | 0.068 | -7.216 |
| y26d0k09t | 49767.3 | -297 | 48 | 0.081 | -4.207 |
| y2nc0709t | 49808.9 | -258 | 47 | 0.070 | -2.062 |
| y2nc0809t | 49829.8 | -280 | 46 | 0.068 | -9.307 |
| y2nc0909t | 49850.7 | -322 | 45 | 0.055 | -5.955 |
| y2nc0a09t | 49870.8 | -283 | 46 | 0.070 | -1.039 |
| y2nc0b09t | 49892.0 | -313 | 46 | 0.077 | -9.307 |
| y2nc0c09t | 49912.1 | -281 | 43 | 0.065 | -4.772 |
| y2tj1802t | 49948.1 | -288 | 48 | 0.075 | -2.062 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G190H Continued** | | | | | |
| y2tj2802t | 49976.9 | -316 | 48 | 0.076 | -2.584 |
| y2tj3802t | 50013.0 | -323 | 47 | 0.068 | -4.772 |
| y2tj4802t | 50040.1 | -332 | 46 | 0.068 | -4.207 |
| y2tj5802t | 50068.9 | -303 | 45 | 0.058 | -4.207 |
| y2tj6802t | 50103.2 | -278 | 49 | 0.075 | -1.039 |
| y2tj7802t | 50131.9 | -324 | 49 | 0.082 | -1.039 |
| y2tj8802t | 50159.6 | -278 | 46 | 0.059 | -3.655 |
| y2tj9802t | 50193.4 | -313 | 47 | 0.073 | -5.356 |
| y2tja802t | 50220.5 | -290 | 46 | 0.068 | -2.062 |
| y2tjc802t | 50284.1 | -302 | 47 | 0.071 | -3.114 |
| y3eg1602t | 50315.8 | -294 | 48 | 0.078 | -2.584 |
| y3eg2402t | 50344.7 | -345 | 45 | 0.061 | -6.575 |
| y3eg3202t | 50374.3 | -306 | 45 | 0.064 | -2.062 |
| y3eg4002t | 50411.4 | -302 | 43 | 0.064 | -1.547 |
| y3eg4802t | 50439.6 | -334 | 47 | 0.076 | -1.547 |
| y3eg5602t | 50467.0 | -294 | 45 | 0.062 | -4.772 |
| **G270H** | | | | | |
| y26d0e08t | 49661.5 | 341 | 56 | 0.077 | -3.114 |
| y26d0g08t | 49691.8 | 361 | 53 | 0.069 | -4.207 |
| y26d0i08t | 49730.8 | 354 | 56 | 0.075 | -7.216 |
| y26d0k08t | 49767.3 | 376 | 56 | 0.078 | -4.207 |
| y2nc0708t | 49808.9 | 390 | 57 | 0.077 | -2.062 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y2nc0808t | 49829.7 | 372 | 56 | 0.079 | -9.307 |
| y2nc0908t | 49850.7 | 332 | 56 | 0.070 | -5.955 |
| y2nc0a08t | 49870.8 | 386 | 57 | 0.080 | -1.039 |
| y2nc0b08t | 49892.0 | 345 | 56 | 0.084 | -9.307 |
| y2nc0c08t | 49912.1 | 385 | 53 | 0.069 | -4.772 |
| y2tj1102t | 49944.4 | 355 | 56 | 0.073 | -4.207 |
| y2tj1201t | 49944.5 | 352 | 57 | 0.074 | -4.207 |
| y2tj1301t | 49944.8 | 352 | 60 | 0.084 | -3.655 |
| y2tj1401t | 49945.4 | 368 | 57 | 0.079 | -3.114 |
| y2tj1501t | 49946.4 | 344 | 58 | 0.083 | -2.584 |
| y2tj1601t | 49946.5 | 371 | 57 | 0.075 | -2.584 |
| y2tj1701t | 49948.1 | 381 | 58 | 0.082 | -2.062 |
| y2tj1702t | 49948.1 | 378 | 59 | 0.085 | -2.062 |
| y2tj1801t | 49948.1 | 374 | 59 | 0.086 | -2.062 |
| y2tj2102t | 49975.0 | 340 | 54 | 0.074 | -5.356 |
| y2tj2201t | 49975.4 | 364 | 52 | 0.064 | -5.955 |
| y2tj2301t | 49975.8 | 368 | 56 | 0.074 | -4.207 |
| y2tj2401t | 49976.6 | 374 | 58 | 0.077 | -2.584 |
| y2tj2501t | 49976.7 | 349 | 58 | 0.079 | -2.584 |
| y2tj2601t | 49976.8 | 360 | 56 | 0.080 | -2.584 |
| y2tj2701t | 49976.9 | 362 | 57 | 0.086 | -2.584 |
| y2tj2702t | 49976.9 | 354 | 60 | 0.088 | -2.584 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y2tj2801t | 49976.9 | 360 | 58 | 0.087 | -2.584 |
| y2tj3102t | 50010.0 | 374 | 54 | 0.069 | -5.955 |
| y2tj3201t | 50010.5 | 360 | 52 | 0.062 | -5.356 |
| y2tj3301t | 50010.9 | 346 | 56 | 0.069 | -5.955 |
| y2tj3401t | 50011.4 | 376 | 55 | 0.072 | -5.955 |
| y2tj3501t | 50011.6 | 365 | 56 | 0.068 | -5.356 |
| y2tj3601t | 50012.1 | 379 | 55 | 0.074 | -3.114 |
| y2tj3701t | 50012.8 | 349 | 57 | 0.081 | -4.772 |
| y2tj3702t | 50012.8 | 344 | 59 | 0.079 | -4.772 |
| y2tj3801t | 50013.0 | 350 | 56 | 0.071 | -4.772 |
| y2tj4102t | 50036.2 | 328 | 54 | 0.068 | -1.547 |
| y2tj4201t | 50036.3 | 341 | 57 | 0.078 | -2.062 |
| y2tj4301t | 50036.7 | 335 | 56 | 0.076 | -3.114 |
| y2tj4401t | 50036.7 | 324 | 57 | 0.081 | -3.655 |
| y2tj4501t | 50036.8 | 322 | 57 | 0.079 | -3.655 |
| y2tj4601t | 50039.8 | 319 | 57 | 0.077 | -5.955 |
| y2tj4701t | 50039.9 | 344 | 56 | 0.076 | -5.356 |
| y2tj4702t | 50039.9 | 337 | 56 | 0.071 | -5.356 |
| y2tj4801t | 50040.1 | 324 | 57 | 0.076 | -4.207 |
| y2tj5102t | 50066.1 | 340 | 55 | 0.067 | -3.655 |
| y2tj5201t | 50066.9 | 367 | 57 | 0.077 | -2.584 |
| y2tj5301t | 50066.9 | 365 | 58 | 0.083 | -2.584 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y2tj5401t | 50067.0 | 346 | 56 | 0.079 | -2.584 |
| y2tj5501t | 50068.2 | 352 | 56 | 0.073 | -2.062 |
| y2tj5601t | 50068.3 | 369 | 55 | 0.074 | -2.062 |
| y2tj5701t | 50068.8 | 367 | 57 | 0.072 | -4.207 |
| y2tj5702t | 50068.8 | 364 | 55 | 0.067 | -4.207 |
| y2tj5801t | 50068.9 | 363 | 54 | 0.066 | -4.207 |
| y2tj6102t | 50100.3 | 364 | 57 | 0.075 | -4.207 |
| y2tj6201t | 50100.4 | 363 | 57 | 0.079 | -4.207 |
| y2tj6301t | 50102.3 | 365 | 58 | 0.081 | -3.114 |
| y2tj6401t | 50102.5 | 368 | 58 | 0.080 | -3.114 |
| y2tj6501t | 50102.6 | 373 | 57 | 0.076 | -2.584 |
| y2tj6601t | 50103.0 | 375 | 57 | 0.080 | -1.039 |
| y2tj6701t | 50103.1 | 390 | 59 | 0.085 | -1.039 |
| y2tj6702t | 50103.1 | 389 | 59 | 0.081 | -1.039 |
| y2tj6801t | 50103.2 | 386 | 58 | 0.086 | -1.039 |
| y2tj7102t | 50128.1 | 340 | 57 | 0.076 | -8.580 |
| y2tj7201t | 50128.3 | 367 | 57 | 0.073 | -6.575 |
| y2tj7301t | 50128.5 | 342 | 58 | 0.078 | -5.356 |
| y2tj7401t | 50128.5 | 353 | 56 | 0.078 | -4.207 |
| y2tj7501t | 50128.7 | 365 | 58 | 0.074 | -3.655 |
| y2tj7601p | 50129.3 | 365 | 56 | 0.071 | -2.062 |
| y2tj7701t | 50129.8 | 365 | 57 | 0.076 | -2.062 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y2tj7702t | 50129.8 | 363 | 56 | 0.078 | -2.062 |
| y2tj7801t | 50131.9 | 352 | 60 | 0.084 | -1.039 |
| y2tj8102t | 50157.9 | 377 | 57 | 0.082 | -1.547 |
| y2tj8201t | 50158.9 | 382 | 55 | 0.074 | -5.955 |
| y2tj8301t | 50158.9 | 382 | 56 | 0.081 | -5.955 |
| y2tj8401t | 50159.0 | 392 | 58 | 0.084 | -5.356 |
| y2tj8501t | 50159.2 | 371 | 57 | 0.078 | -4.772 |
| y2tj8601t | 50159.3 | 382 | 57 | 0.081 | -4.772 |
| y2tj8701t | 50159.5 | 395 | 57 | 0.076 | -4.207 |
| y2tj8702t | 50159.5 | 392 | 57 | 0.076 | -4.207 |
| y2tj8801t | 50159.6 | 400 | 55 | 0.069 | -3.655 |
| y2tj9102t | 50191.0 | 345 | 59 | 0.082 | -7.884 |
| y2tj9201t | 50191.2 | 348 | 55 | 0.071 | -6.575 |
| y2tj9301t | 50191.3 | 367 | 57 | 0.080 | -5.955 |
| y2tj9401t | 50191.3 | 354 | 55 | 0.072 | -5.955 |
| y2tj9501t | 50191.4 | 349 | 56 | 0.075 | -5.356 |
| y2tj9601t | 50191.5 | 380 | 53 | 0.071 | -4.772 |
| y2tj9701t | 50192.5 | 413 | 58 | 0.080 | -2.062 |
| y2tj9702t | 50192.5 | 404 | 57 | 0.082 | -2.062 |
| y2tj9801t | 50193.4 | 351 | 57 | 0.079 | -5.356 |
| y2tja102t | 50218.0 | 391 | 59 | 0.081 | -2.584 |
| y2tja201t | 50218.4 | 373 | 55 | 0.067 | -2.584 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y2tja301t | 50218.5 | 383 | 56 | 0.078 | -2.584 |
| y2tja401t | 50218.5 | 381 | 55 | 0.077 | -2.584 |
| y2tja501t | 50218.6 | 366 | 55 | 0.070 | -2.584 |
| y2tja601t | 50219.6 | 364 | 55 | 0.071 | -1.547 |
| y2tja701t | 50220.0 | 367 | 55 | 0.062 | -1.039 |
| y2tja702t | 50220.0 | 365 | 53 | 0.064 | -1.039 |
| y2tja801t | 50220.5 | 347 | 55 | 0.072 | -2.062 |
| y2tjb102t | 50254.0 | 375 | 57 | 0.079 | -7.884 |
| y2tjb201t | 50254.1 | 377 | 57 | 0.074 | -7.884 |
| y2tjb301t | 50254.4 | 356 | 55 | 0.075 | -6.575 |
| y2tjb401t | 50255.0 | 368 | 55 | 0.066 | -5.356 |
| y2tjb501t | 50255.1 | 359 | 54 | 0.069 | -4.772 |
| y2tjb601t | 50256.0 | 405 | 55 | 0.071 | -3.114 |
| y2tjb701t | 50256.4 | 355 | 55 | 0.073 | -3.655 |
| y2tjb702t | 50256.4 | 349 | 56 | 0.076 | -3.114 |
| y2tjc201t | 50282.1 | 352 | 56 | 0.073 | -8.580 |
| y2tjc301t | 50282.1 | 357 | 55 | 0.080 | -8.580 |
| y2tjc401t | 50282.3 | 361 | 52 | 0.064 | -6.575 |
| y2tjc501t | 50282.6 | 343 | 55 | 0.067 | -5.356 |
| y2tjc601t | 50283.1 | 354 | 55 | 0.075 | -7.216 |
| y2tjc701t | 50284.0 | 395 | 58 | 0.075 | -3.655 |
| y2tjc702t | 50284.0 | 392 | 58 | 0.076 | -3.655 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y2tjc801t | 50284.1 | 365 | 59 | 0.082 | -3.114 |
| y3eg1101t | 50314.9 | 334 | 53 | 0.064 | -3.655 |
| y3eg1201t | 50315.3 | 355 | 53 | 0.066 | -3.114 |
| y3eg1301t | 50315.4 | 362 | 54 | 0.066 | -3.114 |
| y3eg1401t | 50315.5 | 391 | 53 | 0.064 | -3.114 |
| y3eg1501t | 50315.5 | 386 | 56 | 0.079 | -3.114 |
| y3eg1502t | 50315.5 | 382 | 56 | 0.082 | -3.114 |
| y3eg1601t | 50315.8 | 367 | 58 | 0.085 | -2.584 |
| y3eg1702t | 50342.2 | 347 | 58 | 0.082 | -4.207 |
| y3eg1801t | 50342.6 | 358 | 57 | 0.083 | -3.114 |
| y3eg1901t | 50343.1 | 373 | 54 | 0.065 | -3.114 |
| y3eg2001t | 50343.5 | 357 | 54 | 0.066 | -4.207 |
| y3eg2101t | 50343.6 | 367 | 54 | 0.074 | -3.655 |
| y3eg2201t | 50343.7 | 387 | 53 | 0.065 | -3.114 |
| y3eg2301t | 50343.8 | 383 | 54 | 0.074 | -3.114 |
| y3eg2302t | 50343.8 | 378 | 55 | 0.071 | -3.114 |
| y3eg2401t | 50344.7 | 329 | 56 | 0.073 | -6.575 |
| y3eg2502t | 50373.7 | 321 | 54 | 0.067 | -4.207 |
| y3eg2601t | 50373.7 | 342 | 53 | 0.063 | -4.207 |
| y3eg2701t | 50373.9 | 332 | 55 | 0.076 | -3.114 |
| y3eg2801t | 50374.0 | 353 | 57 | 0.081 | -3.114 |
| y3eg2901t | 50374.0 | 352 | 59 | 0.084 | -3.114 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y3eg3001t | 50374.1 | 362 | 55 | 0.070 | -2.584 |
| y3eg3101t | 50374.2 | 352 | 56 | 0.072 | -2.584 |
| y3eg3102t | 50374.2 | 349 | 56 | 0.075 | -2.584 |
| y3eg3201t | 50374.3 | 349 | 55 | 0.069 | -2.062 |
| y3eg3302p | 50409.1 | 336 | 54 | 0.070 | -4.207 |
| y3eg3401t | 50410.2 | 376 | 56 | 0.075 | -2.062 |
| y3eg3501t | 50410.3 | 367 | 58 | 0.080 | -2.062 |
| y3eg3601t | 50411.1 | 353 | 57 | 0.079 | -2.062 |
| y3eg3701t | 50411.1 | 368 | 57 | 0.076 | -2.062 |
| y3eg3801t | 50411.2 | 386 | 55 | 0.075 | -1.547 |
| y3eg3901t | 50411.4 | 379 | 56 | 0.076 | -1.547 |
| y3eg3902t | 50411.4 | 374 | 56 | 0.074 | -1.547 |
| y3eg4001t | 50411.4 | 367 | 54 | 0.071 | -1.547 |
| y3eg4102t | 50436.5 | 341 | 55 | 0.074 | -7.216 |
| y3eg4201t | 50436.6 | 367 | 57 | 0.082 | -7.216 |
| y3eg4301t | 50436.7 | 368 | 57 | 0.084 | -6.575 |
| y3eg4401t | 50437.4 | 320 | 53 | 0.065 | -5.356 |
| y3eg4501t | 50437.7 | 329 | 53 | 0.064 | -4.207 |
| y3eg4601t | 50439.0 | 351 | 57 | 0.080 | -2.584 |
| y3eg4701t | 50439.1 | 360 | 56 | 0.079 | -2.584 |
| y3eg4702t | 50439.1 | 353 | 57 | 0.084 | -2.584 |
| y3eg4801t | 50439.6 | 345 | 55 | 0.070 | -1.547 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G270H Continued** | | | | | |
| y3eg4902t | 50463.6 | 350 | 56 | 0.074 | -3.114 |
| y3eg5001t | 50464.0 | 382 | 55 | 0.075 | -3.655 |
| y3eg5101t | 50464.6 | 332 | 54 | 0.071 | -4.207 |
| y3eg5201t | 50465.1 | 359 | 59 | 0.089 | -2.062 |
| y3eg5301t | 50465.4 | 358 | 56 | 0.075 | -2.062 |
| y3eg5401t | 50466.1 | 367 | 59 | 0.082 | -2.062 |
| y3eg5501t | 50467.0 | 341 | 56 | 0.070 | -4.772 |
| y3eg5502t | 50467.0 | 339 | 56 | 0.069 | -4.772 |
| y3eg5601t | 50467.0 | 339 | 56 | 0.074 | -4.772 |
| **G400H** | | | | | |
| y26d0e07t | 49661.5 | -1398 | 42 | 0.074 | -3.114 |
| y26d0g07t | 49691.8 | -1382 | 40 | 0.070 | -4.207 |
| y26d0i07t | 49730.8 | -1404 | 42 | 0.074 | -7.216 |
| y26d0k07t | 49767.3 | -1388 | 48 | 0.084 | -4.207 |
| y2nc0707t | 49808.9 | -1357 | 46 | 0.080 | -2.062 |
| y2nc0807t | 49829.7 | -1369 | 51 | 0.090 | -9.307 |
| y2nc0907t | 49850.7 | -1417 | 40 | 0.071 | -5.955 |
| y2nc0a07t | 49870.8 | -1366 | 42 | 0.073 | -0.534 |
| y2nc0b07t | 49892.0 | -1399 | 48 | 0.085 | -9.307 |
| y2nc0c07t | 49912.1 | -1380 | 37 | 0.065 | -4.772 |
| y2tj0101t | 50048.6 | -1383 | 43 | 0.076 | -8.580 |
| y2tj1602t | 49946.5 | -1391 | 46 | 0.080 | -2.584 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G190H Continued** | | | | | |
| y2tj2602t | 49976.8 | -1390 | 50 | 0.089 | -2.584 |
| y2tj3602t | 50012.1 | -1386 | 43 | 0.075 | -3.114 |
| y2tj4602t | 50039.8 | -1420 | 45 | 0.080 | -5.955 |
| y2tj5602t | 50068.3 | -1381 | 41 | 0.073 | -2.062 |
| y2tj6602t | 50103.0 | -1368 | 44 | 0.078 | -1.039 |
| y2tj7602p | 50129.3 | -1383 | 39 | 0.069 | -2.062 |
| y2tj8602t | 50159.3 | -1388 | 46 | 0.082 | -4.207 |
| y2tj9602t | 50191.5 | -1380 | 42 | 0.075 | -4.772 |
| y2tja602t | 50219.6 | -1379 | 38 | 0.065 | -1.547 |
| y2tjb602t | 50256.0 | -1373 | 39 | 0.070 | -3.114 |
| y2tjc602t | 50283.1 | -1390 | 42 | 0.074 | -7.216 |
| y3eg1402t | 50315.5 | -1362 | 41 | 0.072 | -3.114 |
| y3eg2202t | 50343.7 | -1375 | 44 | 0.078 | -3.114 |
| y3eg3002t | 50374.1 | -1411 | 41 | 0.072 | -2.584 |
| y3eg3802t | 50411.2 | -1385 | 37 | 0.065 | -1.547 |
| y3eg4602t | 50439.0 | -1400 | 46 | 0.082 | -2.584 |
| y3eg5402t | 50466.1 | -1388 | 45 | 0.080 | -2.062 |
| **G570H** | | | | | |
| y26d0e06t | 49661.5 | -1494 | 33 | 0.049 | -3.114 |
| y26d0g06t | 49691.7 | -1478 | 30 | 0.030 | -4.207 |
| y26d0i06t | 49730.8 | -1501 | 31 | 0.043 | -7.216 |
| y26d0k06t | 49767.3 | -1498 | 36 | 0.055 | -4.207 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G570H Continued** | | | | | |
| y2nc0706t | 49808.9 | -1464 | 35 | 0.046 | -2.062 |
| y2nc0806t | 49829.7 | -1474 | 33 | 0.051 | -9.307 |
| y2nc0906t | 49850.7 | -1532 | 32 | 0.045 | -5.955 |
| y2nc0a06t | 49870.8 | -1499 | 33 | 0.045 | -1.039 |
| y2nc0b06t | 49892.0 | -1514 | 37 | 0.057 | -9.307 |
| y2nc0c06t | 49912.1 | -1491 | 30 | 0.040 | -4.772 |
| y2tj1502t | 49946.4 | -1508 | 35 | 0.056 | -2.584 |
| y2tj2502t | 49976.7 | -1491 | 33 | 0.048 | -2.584 |
| y2tj3502t | 50011.6 | -1475 | 31 | 0.043 | -5.356 |
| y2tj4502t | 50036.8 | -1523 | 33 | 0.052 | -3.655 |
| y2tj5502t | 50068.2 | -1497 | 31 | 0.038 | -2.062 |
| y2tj6502t | 50102.6 | -1475 | 35 | 0.036 | -2.584 |
| y2tj7502t | 50128.7 | -1497 | 35 | 0.045 | -3.655 |
| y2tj8502t | 50159.2 | -1483 | 32 | 0.043 | -4.772 |
| y2tj9502t | 50191.4 | -1502 | 32 | 0.050 | -5.356 |
| y2tja502t | 50218.6 | -1494 | 31 | 0.045 | -2.584 |
| y2tjb502t | 50255.1 | -1471 | 35 | 0.052 | -4.772 |
| y2tjc502t | 50282.6 | -1475 | 32 | 0.037 | -5.356 |
| y3eg1302t | 50315.5 | -1487 | 30 | 0.033 | -3.114 |
| y3eg2102t | 50343.6 | -1469 | 34 | 0.050 | -3.655 |
| y3eg2902t | 50374.0 | -1507 | 34 | 0.044 | -3.114 |
| y3eg3702t | 50411.1 | -1470 | 35 | 0.049 | -2.062 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G570H Continued** | | | | | |
| y3eg4502t | 50437.7 | -1503 | 31 | 0.040 | -4.207 |
| y3eg5302t | 50465.4 | -1496 | 33 | 0.050 | -2.062 |
| **G780H** | | | | | |
| y26d0e05t | 49661.5 | 269 | 13 | 0.045 | -3.114 |
| y26d0g05t | 49691.7 | 286 | 10 | 0.028 | -4.207 |
| y26d0i05t | 49730.8 | 250 | 9 | 0.032 | -7.216 |
| y26d0k05t | 49767.3 | 271 | 13 | 0.045 | -4.207 |
| y2nc0705t | 49808.9 | 293 | 11 | 0.036 | -2.062 |
| y2nc0805t | 49829.7 | 280 | 10 | 0.026 | -9.307 |
| y2nc0905t | 49850.7 | 228 | 12 | 0.043 | -5.955 |
| y2nc0a05t | 49870.8 | 269 | 11 | 0.020 | -1.039 |
| y2nc0b05t | 49892.0 | 247 | 10 | 0.028 | -9.307 |
| y2nc0c05t | 49912.1 | 250 | 9 | 0.003 | -4.772 |
| y2tj1402t | 49945.4 | 258 | 17 | 0.060 | -3.114 |
| y2tj2402t | 49976.6 | 263 | 15 | 0.053 | -2.584 |
| y2tj3402t | 50011.4 | 272 | 9 | 0.024 | -5.955 |
| y2tj4402t | 50036.7 | 234 | 11 | 0.031 | -3.114 |
| y2tj5402t | 50067.0 | 251 | 12 | 0.027 | -2.584 |
| y2tj6402t | 50102.5 | 270 | 10 | 0.034 | -3.114 |
| y2tj7402t | 50128.6 | 242 | 10 | 0.017 | -4.207 |
| y2tj8402t | 50159.0 | 275 | 11 | 0.025 | -5.356 |
| y2tj9402t | 50191.3 | 260 | 10 | 0.022 | -5.356 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G780H Continued** | | | | | |
| y2tja402t | 50218.5 | 271 | 13 | 0.025 | -2.584 |
| y2tjb402t | 50255.0 | 262 | 9 | 0.013 | -5.356 |
| y2tjc402t | 50282.3 | 264 | 8 | 0.015 | -6.575 |
| y3eg1202t | 50315.3 | 256 | 10 | 0.003 | -3.114 |
| y3eg2002t | 50343.5 | 269 | 8 | 0.015 | -4.207 |
| y3eg2802t | 50374.0 | 235 | 12 | 0.043 | -3.114 |
| y3eg3602t | 50411.1 | 258 | 11 | 0.027 | -2.062 |
| y3eg4402t | 50437.4 | 240 | 9 | 0.032 | -5.356 |
| y3eg5202t | 50465.1 | 259 | 13 | 0.037 | -2.062 |
| **G160L** | | | | | |
| y26d0e04t | 49661.5 | -209 | 42 | 0.318 | -3.114 |
| y26d0g04t | 49691.7 | -201 | 33 | 0.250 | -4.207 |
| y26d0i04t | 49730.8 | -231 | 40 | 0.303 | -7.216 |
| y26d0k04t | 49767.3 | -206 | 41 | 0.306 | -4.207 |
| y2nc0704t | 49808.9 | -175 | 40 | 0.298 | -2.062 |
| y2nc0804t | 49829.7 | -209 | 40 | 0.302 | -9.307 |
| y2nc0904t | 49850.7 | -228 | 39 | 0.292 | -5.955 |
| y2nc0a04t | 49870.8 | -218 | 33 | 0.253 | -0.534 |
| y2nc0b04t | 49892.0 | -237 | 43 | 0.327 | -9.307 |
| y2nc0c04t | 49912.1 | -210 | 39 | 0.296 | -4.772 |
| y2tj1302t | 49944.8 | -240 | 42 | 0.317 | -3.655 |
| y2tj2302t | 49975.8 | -226 | 35 | 0.265 | -4.207 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G160L Continued** | | | | | |
| y2tj3302t | 50010.9 | -208 | 40 | 0.300 | -5.955 |
| y2tj4302t | 50036.7 | -262 | 41 | 0.309 | -3.114 |
| y2tj5302t | 50066.9 | -213 | 43 | 0.325 | -2.584 |
| y2tj6302t | 50102.3 | -223 | 40 | 0.305 | -3.114 |
| y2tj7302t | 50128.5 | -230 | 44 | 0.333 | -4.772 |
| y2tj8302t | 50158.9 | -206 | 43 | 0.323 | -5.955 |
| y2tj9302t | 50191.3 | -229 | 45 | 0.338 | -5.955 |
| y2tja302t | 50218.5 | -194 | 45 | 0.336 | -2.584 |
| y2tjb302t | 50254.4 | -224 | 38 | 0.289 | -6.575 |
| y2tjc302t | 50282.1 | -241 | 35 | 0.264 | -7.884 |
| y3eg1102t | 50314.9 | -233 | 39 | 0.295 | -3.655 |
| y3eg1902t | 50343.1 | -207 | 40 | 0.301 | -3.655 |
| y3eg2702t | 50373.9 | -245 | 39 | 0.293 | -3.114 |
| y3eg3502t | 50410.3 | -215 | 37 | 0.283 | -2.062 |
| y3eg4302t | 50436.7 | -213 | 41 | 0.310 | -6.575 |
| y3eg5102t | 50464.6 | -248 | 40 | 0.304 | -4.207 |
| **G650L** | | | | | |
| y26d0e03t | 49661.5 | -331 | 44 | 0.217 | -3.114 |
| y26d0g03t | 49691.7 | -341 | 43 | 0.223 | -4.207 |
| y26d0i03t | 49730.8 | -353 | 43 | 0.226 | -7.216 |
| y26d0k03t | 49767.3 | -333 | 44 | 0.226 | -4.207 |
| y2nc0703t | 49808.9 | -301 | 43 | 0.226 | -2.062 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G650L Continued** | | | | | |
| y2nc0803t | 49829.7 | -327 | 50 | 0.265 | -9.307 |
| y2nc0903t | 49850.7 | -351 | 43 | 0.217 | -5.955 |
| y2nc0a03t | 49870.8 | -342 | 42 | 0.209 | -1.039 |
| y2nc0b03t | 49892.0 | -352 | 43 | 0.227 | -9.307 |
| y2nc0c03t | 49912.1 | -339 | 40 | 0.200 | -4.772 |
| y2tj1202t | 49944.5 | -352 | 42 | 0.209 | -4.207 |
| y2tj2202t | 49975.4 | -335 | 42 | 0.221 | -5.955 |
| y2tj3202t | 50010.5 | -341 | 41 | 0.219 | -5.356 |
| y2tj4202t | 50036.3 | -374 | 45 | 0.241 | -2.062 |
| y2tj5202t | 50066.9 | -345 | 43 | 0.229 | -2.584 |
| y2tj6202t | 50100.4 | -348 | 44 | 0.228 | -3.655 |
| y2tj7202t | 50128.3 | -344 | 42 | 0.190 | -6.575 |
| y2tj8202t | 50158.9 | -353 | 43 | 0.221 | -5.955 |
| y2tj9202t | 50191.2 | -355 | 42 | 0.225 | -6.575 |
| y2tja202t | 50218.5 | -323 | 41 | 0.207 | -2.584 |
| y2tjb202t | 50254.1 | -326 | 44 | 0.235 | -7.884 |
| y2tjc202t | 50282.1 | -330 | 43 | 0.229 | -8.580 |
| y3eg1002t | 50314.1 | -358 | 43 | 0.217 | -3.114 |
| y3eg1802t | 50342.6 | -357 | 45 | 0.233 | -3.114 |
| y3eg2602t | 50373.7 | -380 | 44 | 0.234 | -4.207 |
| y3eg3402t | 50410.2 | -348 | 42 | 0.206 | -2.062 |
| y3eg4202t | 50436.6 | -342 | 44 | 0.204 | -7.216 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **G650L Continued** | | | | | |
| y3eg5002t | 50464.0 | -310 | 42 | 0.221 | -3.655 |
| **Prism** | | | | | |
| y26d0e02t | 49661.5 | -346 | 8 | -0.035 | -3.114 |
| y26d0g02t | 49691.7 | -325 | 9 | -0.065 | -4.207 |
| y26d0i02t | 49730.8 | -350 | 9 | -0.063 | -7.216 |
| y26d0k02t | 49767.3 | -309 | 7 | -0.020 | -4.207 |
| y2nc0702t | 49808.9 | -284 | 10 | -0.055 | -2.062 |
| y2nc0802t | 49829.7 | -317 | 8 | -0.017 | -9.307 |
| y2nc0902t | 49850.7 | -341 | 8 | -0.020 | -5.955 |
| y2nc0a02t | 49870.8 | -312 | 7 | 0.021 | -1.039 |
| y2nc0b02t | 49892.0 | -352 | 9 | -0.015 | -9.307 |
| y2nc0c02t | 49912.1 | -318 | 8 | -0.030 | -4.772 |
| y2tj1103t | 49944.4 | -353 | 8 | -0.061 | -4.207 |
| y2tj2103t | 49975.0 | -332 | 8 | -0.023 | -5.356 |
| y2tj3103t | 50010.0 | -328 | 9 | -0.036 | -5.955 |
| y2tj4103t | 50036.3 | -362 | 8 | 0.006 | -1.547 |
| y2tj5103t | 50066.1 | -356 | 9 | -0.056 | -3.655 |
| y2tj6103t | 50100.3 | -340 | 9 | -0.030 | -4.207 |
| y2tj7103t | 50128.1 | -354 | 9 | -0.024 | -8.580 |
| y2tj8103t | 50157.9 | -335 | 9 | -0.063 | -1.547 |
| y2tj9103t | 50191.0 | -370 | 7 | -0.021 | -7.884 |
| y2tja103t | 50218.0 | -309 | 8 | -0.061 | -2.584 |

**Table 3: Redside**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **Prism Continued** | | | | | |
| y2tjb103t | 50254.0 | -331 | 9 | -0.021 | -7.884 |
| y3eg1703t | 50342.2 | -351 | 8 | -0.059 | -4.207 |
| y3eg2503t | 50373.7 | -385 | 8 | -0.013 | -4.207 |
| y3eg3303p | 50409.1 | -361 | 7 | -0.002 | -4.207 |
| y3eg4103t | 50436.6 | -347 | 8 | -0.009 | -7.216 |
| y3eg4903t | 50463.6 | -357 | 9 | -0.042 | -3.114 |

**Table 4: Correlation coefficients for the fits to YBASE vs Date: June 1993 - August 1995.**

| Disperser | Linear Correlation (June 1993 - August 1995) | |
|---|---|---|
| | Blueside | Redside |
| G130H | 0.89 | N/A |
| G190H | 0.81 | 0.44 |
| G270H | 0.93 | 0.48 |
| G400H | 0.84 | 0.63 |
| G570H | 0.91 | 0.37 |
| G780H | N/A | 0.41 |
| G160L | 0.84 | 0.60 |
| G650L | 0.83 | 0.51 |
| PRISM | 0.87 | 0.57 |
| Mirror | 0.44 | 0.23 |

**Table 5: Correlation Coefficients for the Fits to YBASE vs Date: June 1993 - May 1996.**

| Disperser | Linear Correlation (June 1993 - May 1996) | |
|---|---|---|
| | Blueside | Redside |
| G130H | 0.88 | N/A |
| G190H | 0.84 | 0.31 |
| G270H | 0.47 | 0.33 |
| G400H | 0.86 | 0.58 |
| G570H | 0.90 | 0.36 |
| G780H | N/A | 0.31 |
| G160L | 0.81 | 0.41 |
| G650L | 0.89 | 0.30 |
| PRISM | 0.80 | 0.30 |

**Table 6: Correlation Coefficients for the Fits to YBASE vs Date: June, 1993 - December, 1996.**

| Disperser | Linear Correlation (June 1993 - Feb 1997) | |
|---|---|---|
| | Blueside | Redside |
| G130H | 0.84 | N/A |
| G190H | 0.87 | 0.29 |
| G270H | 0.44 | 0.21 |
| G400H | 0.88 | 0.58 |
| G570H | 0.86 | 0.49 |
| G780H | N/A | 0.30 |
| G160L | 0.80 | 0.36 |
| G650L | 0.89 | 0.27 |
| PRISM | 0.75 | 0.31 |
| Mirror | 0.59 | 0.07 |

**Table 7: Standard deviations of the data from each fit: BLUESIDE.**

| Disperser | Standard Deviation | | | |
|---|---|---|---|---|
| | Before March 1993 | June 1993 - August 1995 | June 1993 - May 1996 | June 1993 - Dec. 1996 |
| G130H | 9.4 | 14.9 | 14.3 | 14.7 |
| G190H | 11.2 | 14.5 | 13.6 | 13.3 |
| G270H | 6.9 | 8.4 | 12.1 | 11.9 |
| G400H | 11.4 | 12.1 | 13.0 | 12.4 |
| G570H | 9.6 | 13.2 | 14.8 | 15.5 |
| G780H | N/A | N/A | N/A | N/A |
| G160L | 9.0 | 15.3 | 18.1 | 17.7 |
| G650L | 11.9 | 13.4 | 12.1 | 12.3 |
| PRISM | 4.5 | 15.8 | 14.3 | 13.5 |
| Mirror | | | 10.1 | 11.4 |

**Table 8: Standard deviations of the data from each fit. REDSIDE.**

| Disperser | Standard Deviation | | | |
|---|---|---|---|---|
| | Before March 1993 | June 1993 - August 1995 | June 1993 - May 1996 | June 1993 - Dec. 1996 |
| G130H | N/A | N/A | N/A | N/A |
| G190H | 7.7 | 22.8 | 23.0 | 19.8 |
| G270H | 9.4 | 23.7 | 20.1 | 19.3 |
| G400H | 7.6 | 19.2 | 16.6 | 16.3 |
| G570H | 11.9 | 20.0 | 18.8 | 16.6 |
| G780H | 7.7 | 19.6 | 18.2 | 15.5 |
| G160L | 8.5 | 22.6 | 22.1 | 18.6 |
| G650L | 15.3 | 23.0 | 21.4 | 18.6 |
| PRISM | 11.9 | 27.3 | 26.8 | 23.5 |
| Mirror | | | 22.3 | 22.3 |

**Table 9: Polarimetry Data from Proposal 5579 used for October 16, 1995 PDB Update.**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **Blueside G190H Waveplate B, Pass 1(lower)** | | | | | |
| y2cm0105t | 49475.986 | -1464 | 72 | 0.117 | -4.21 |
| y2cm0105t | 49475.986 | -1464 | 72 | 0.117 | -4.21 |
| **Blueside G190H Waveplate B, Pass 2(upper)** | | | | | |
| y2cm0106t | 49475.991 | -596 | 29 | -0.048 | -4.21 |
| y2cm0106t | 49475.991 | -596 | 29 | -0.048 | -4.21 |
| **Blueside G270H Waveplate B, Pass 1(lower)** | | | | | |
| y2cm0102t | 49475.976 | -1839 | 46 | 0.074 | -4.21 |
| y2cm0102t | 49475.976 | -1839 | 46 | 0.074 | -4.21 |
| **Blueside G270H Waveplate B, Pass 2(upper)** | | | | | |
| y2cm0103t | 49475.978 | -1131 | 15 | -0.026 | -4.21 |
| y2cm0103t | 49475.978 | -1131 | 15 | -0.026 | -4.21 |
| **Redside G190H Waveplate B, Pass 1(lower)** | | | | | |
| y2cm0505t | 49480.046 | -734 | 40 | -0.019 | -7.22 |
| y2cm0505t | 49480.046 | -734 | 40 | -0.019 | -7.22 |
| **Redside G190H Waveplate B, Pass 2(upper)** | | | | | |
| y2cm0506t | 49480.051 | 119 | 48 | 0.081 | -7.22 |
| y2cm0506t | 49480.051 | 119 | 48 | 0.081 | -7.22 |
| **Redside G270H Waveplate B, Pass 1(lower)** | | | | | |
| y2cm0502t | 49480.033 | -26 | 43 | 0.006 | -7.22 |
| y2cm0502t | 49480.033 | -26 | 43 | 0.006 | -7.22 |
| | | | | | |

**Table 9: Polarimetry Data from Proposal 5579 used for October 16, 1995 PDB Update.**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **Redside G270H Waveplate B, Pass 2(upper)** | | | | | |
| **y2cm0503t** | 49480.037 | 773 | 62 | 0.110 | -7.22 |
| **y2cm0503t** | 49480.037 | 773 | 62 | 0.110 | -7.22 |

**Table 10: October 16, 1995, PDB update of YBASEs: Polarimetry, Waveplate B**

| Disperser | Direction | Blueside | Redside |
|---|---|---|---|
| G190H | Pass1(lower) | -1464 | -734 |
| | Pass2(upper) | -596 | 120 |
| G270H | Pass1(lower) | -1839 | -26 |
| | Pass2(upper) | -1131 | 773 |

**Table 11: October 16, 1995, PDB update of YBASEs: Clear, Single Aperture**

| Disperser | Blueside | Redside |
|---|---|---|
| An * marks values unchanged from previous update | | |
| MIRROR | -995 | -215* |
| G130H | -600 | N/A |
| G190H | -978 | -304* |
| G270H | -1603 | 364 |
| G400H | 318 | -1378* |
| G570H | 281 | -1498* |
| G780H | N/A | 259* |
| G160L | -870 | -216 |
| G650L | -661 | -341 |
| PRISM | -725 | -335* |

**Table 12: October, 16 1995, PDB update of YBASEs: Clear, Paired Aperture**

| Disperser | Aperture | Blueside | Redside |
|---|---|---|---|
| An * marks values unchanged from previous update. | | | |
| MIRROR | Upper | -725 | 43* |
| | Lower | -1257 | -473* |
| G130H | Upper | -330 | N/A |
| | Lower | -862 | N/A |
| G190H | Upper | -708 | -46* |
| | Lower | -1240 | -562* |
| G270H | Upper | -1333 | 646 |
| | Lower | -1865 | 129 |
| G400H | Upper | 588 | -1120* |
| | Lower | 56 | -1636* |
| G570H | Upper | 551 | -1240* |
| | Lower | 19 | -1756* |
| G780H | Upper | N/A | 517* |
| | Lower | N/A | 1* |
| G160L | Upper | -600 | 66 |
| | Lower | -1132 | -451 |
| G650L | Upper | -391 | -59 |
| | Lower | -923 | -576 |
| PRISM | Upper | -455 | -77* |
| | Lower | -987 | -593* |

**Table 13: Polarimetry Data from Proposal 6206 used for January 1996 PDB Update.**

| Name | Date (MJD) | YBASE | Spectrum Height (ybases) | $\theta_z$ (degrees) | Temperature ($C^0$) |
|---|---|---|---|---|---|
| **Blueside G190H Single Clear** | | | | | |
| y3200104t | 50082.060 | -969 | 28 | 0.021 | -2.06 |
| **Blueside G190H Waveplate B Pass 1 (lower)** | | | | | |
| y3200105t | 50082.065 | -1434 | 67 | 0.102 | -2.06 |
| **Blueside G190H Waveplate B Pass 2 (upper)** | | | | | |
| y3200106t | 50082.071 | -568 | 18 | -0.032 | -2.06 |
| **Blueside G270H Single Clear** | | | | | |
| y3200101t | 50082.048 | -1593 | 22 | 0.008 | -2.06 |
| **Blueside G270H Waveplate B Pass 1 (lower)** | | | | | |
| y3200102t | 50082.053 | -1816 | 42 | 0.065 | -2.06 |
| **Blueside G270H Waveplate B Pass 2 (upper)** | | | | | |
| y3200103t | 50082.056 | -1109 | 26 | -0.047 | -2.06 |
| **Blueside G400H Single Clear** | | | | | |
| y3200107t | 50082.086 | 325 | 21 | -0.008 | -2.06 |
| **Blueside G400H Waveplate A Pass 1 (lower)** | | | | | |
| y3200108t | 50082.100 | -63 | 27 | 0.029 | -2.06 |
| **Blueside G400H Waveplate A Pass 2 (upper)** | | | | | |
| y3200109t | 50082.106 | 710 | 31 | -0.041 | -2.06 |

Table 14: **January, 1996, PDB update of YBASEs: Clear, Single Aperture, Only.**

| Disperser | Blueside |
|---|---|
| G190H | -969 |
| G270H | -1593 |
| G400H | 325 |

**Table 15: January, 1996, PDB update of YBASEs: Polarimetry**

| Disperser | Direction | Blueside | |
|---|---|---|---|
| | | Waveplate B | Waveplate A |
| G190H | Pass1(lower) | -1434 | N/A |
| | Pass2(upper) | -568 | N/A |
| G270H | Pass1(lower) | -1816 | N/A |
| | Pass2(upper) | -1109 | N/A |
| G400H | Pass1(lower) | N/A | -63 |
| | Pass2(upper) | N/A | 710 |

**Table 16: June 15, 1996, PDB update of YBASES: Clear, Single Aperture**

| Disperser | Blueside | Redside |
|---|---|---|
| MIRROR | -986 | |
| G130H | -587 | N/A |
| G190H | -965 | -298 |
| G270H | -1597 | |
| G400H | 330 | -1384 |
| G570H | 298 | -1493 |
| G780H | N/A | |
| G160L | -856 | |
| G650L | -649 | |
| PRISM | | |

**Table 17: June 15, 1996, PDB update of YBASEs: Clear, Paired Aperture**

| Disperser | Aperture | Blueside | Redside |
|---|---|---|---|
| MIRROR | Upper | -716 | |
| | Lower | -1248 | |
| G130H | Upper | -317 | N/A |
| | Lower | -849 | N/A |
| G190H | Upper | -695 | -40 |
| | Lower | -1227 | -556 |
| G270H | Upper | -1327 | |
| | Lower | -1859 | |
| G400H | Upper | 600 | -1126 |
| | Lower | 68 | -1642 |
| G570H | Upper | 568 | -1235 |
| | Lower | 36 | -1751 |
| G780H | Upper | N/A | |
| | Lower | N/A | |
| G160L | Upper | -586 | |
| | Lower | -1118 | |
| G650L | Upper | -379 | |
| | Lower | -911 | |
| PRISM | Upper | | |
| | Lower | | |

**Table 18: December 18, 1996, PDB update of YBASEs: Clear, Single Aperture**

| Disperser | Blueside | Redside |
|---|---|---|
| MIRROR | -981 | |
| G130H | | N/A |
| G190H | -954 | |
| G270H | | |
| G400H | 341 | |
| G570H | | -1484 |
| G780H | N/A | |
| G160L | -851 | -225 |
| G650L | -638 | -349 |
| PRISM | -720 | -349 |

**Table 19: December 18, 1996**, PDB update of **YBASEs: Clear Paired Aperture**

| Disperser | Aperture | Blueside | Redside |
|---|---|---|---|
| MIRROR | Upper | -711 | |
| | Lower | -1243 | |
| G130H | Upper | | N/A |
| | Lower | | N/A |
| G190H | Upper | -684 | |
| | Lower | -1216 | |
| G270H | Upper | | |
| | Lower | | |
| G400H | Upper | 611 | |
| | Lower | 79 | |
| G570H | Upper | | -1226 |
| | Lower | | -1742 |
| G780H | Upper | N/A | |
| | Lower | N/A | |
| G160L | Upper | -581 | 57 |
| | Lower | -1113 | -460 |
| G650L | Upper | -368 | -67 |
| | Lower | -900 | -584 |
| PRISM | Upper | -450 | -91 |
| | Lower | -982 | -607 |