



Instrument Trends

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HIRDLS long term trending



This part is concerned with a lightning tour of the Instrument long term trends - as illustrated by The radiometer.

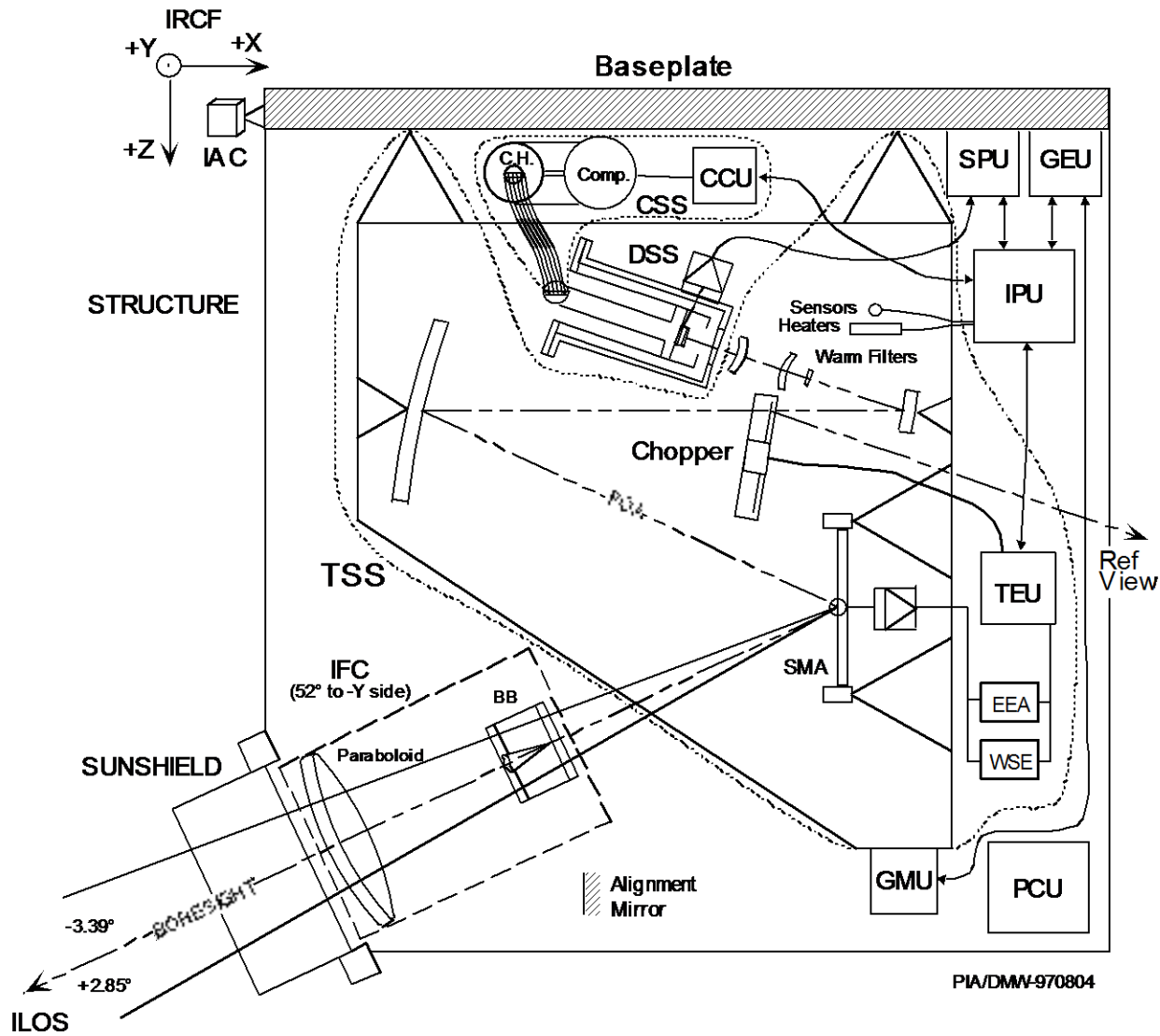
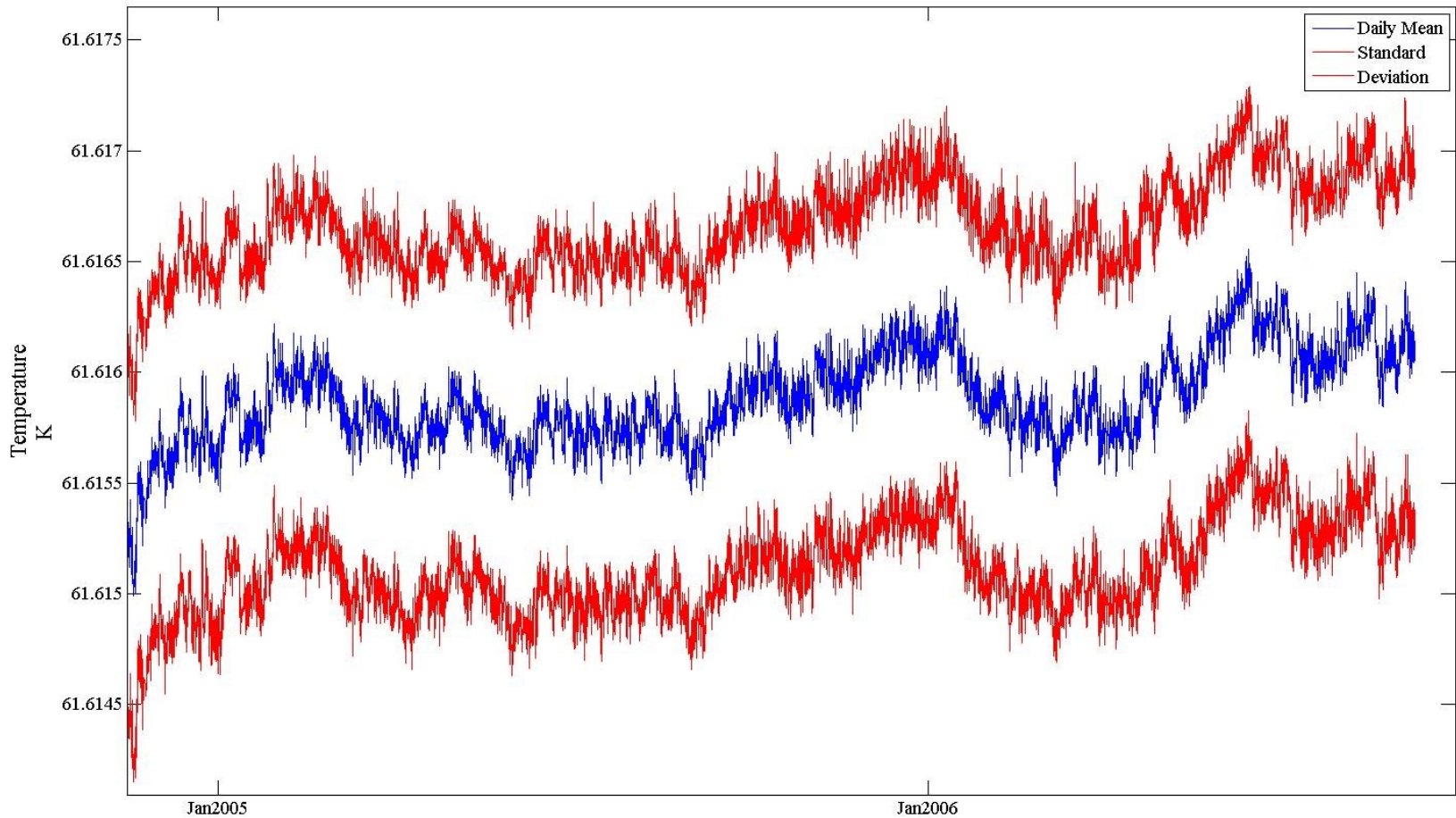


Figure 3.1-1 HIRDLS Instrument Layout

Focal Plane & cold filter temperature

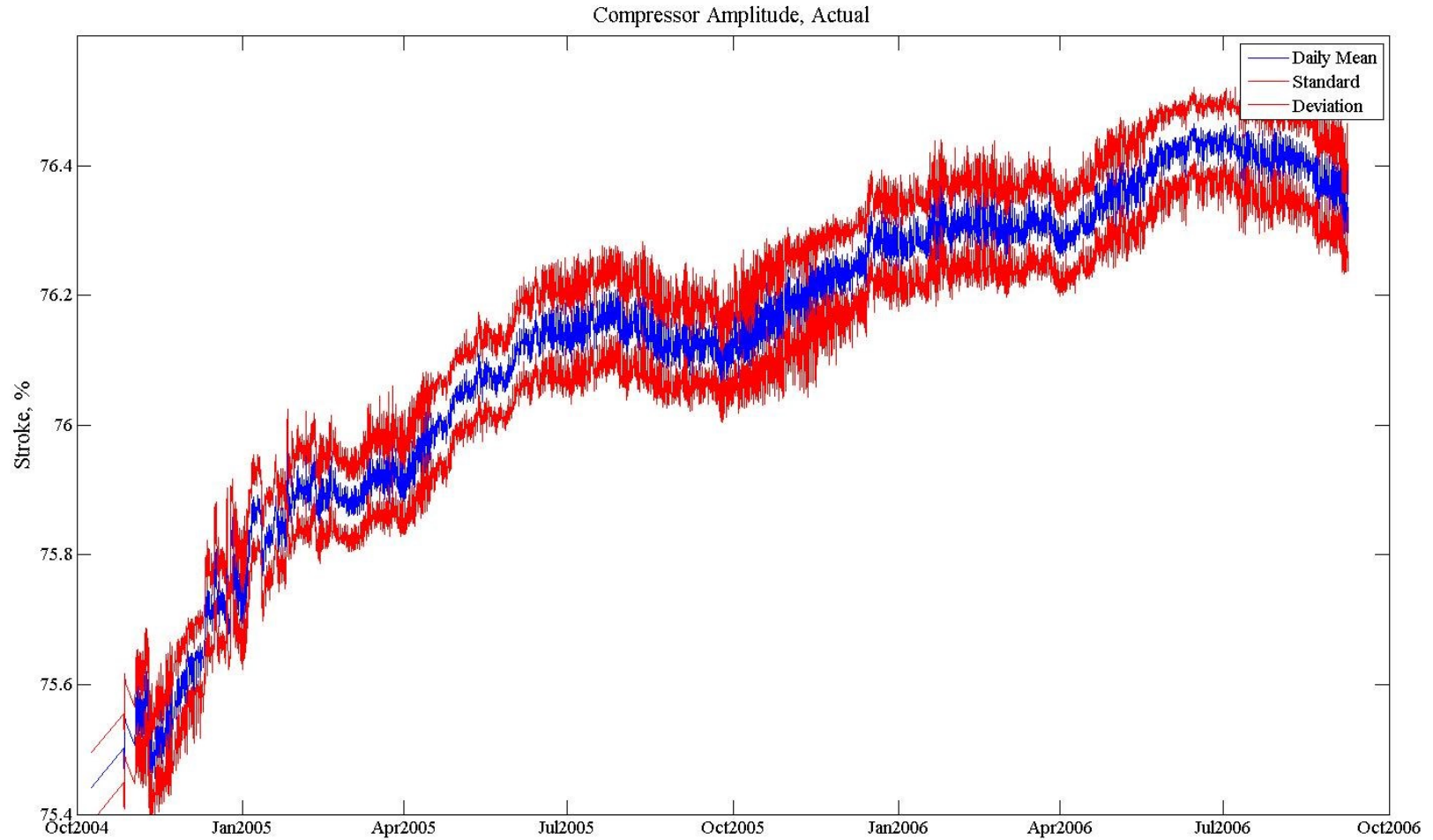
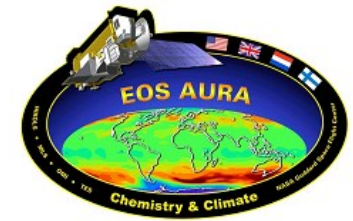


FPA Temperature Sensor B

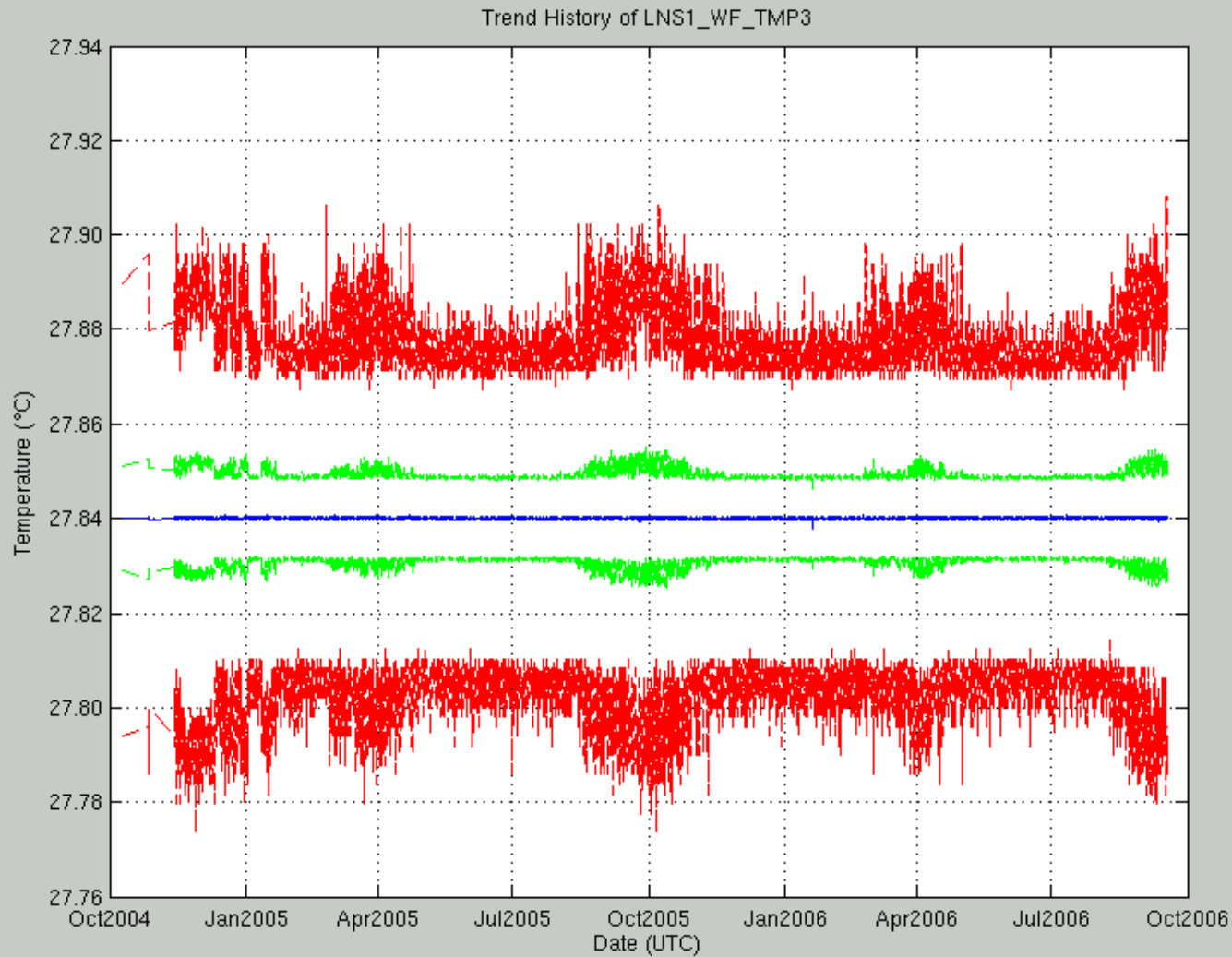




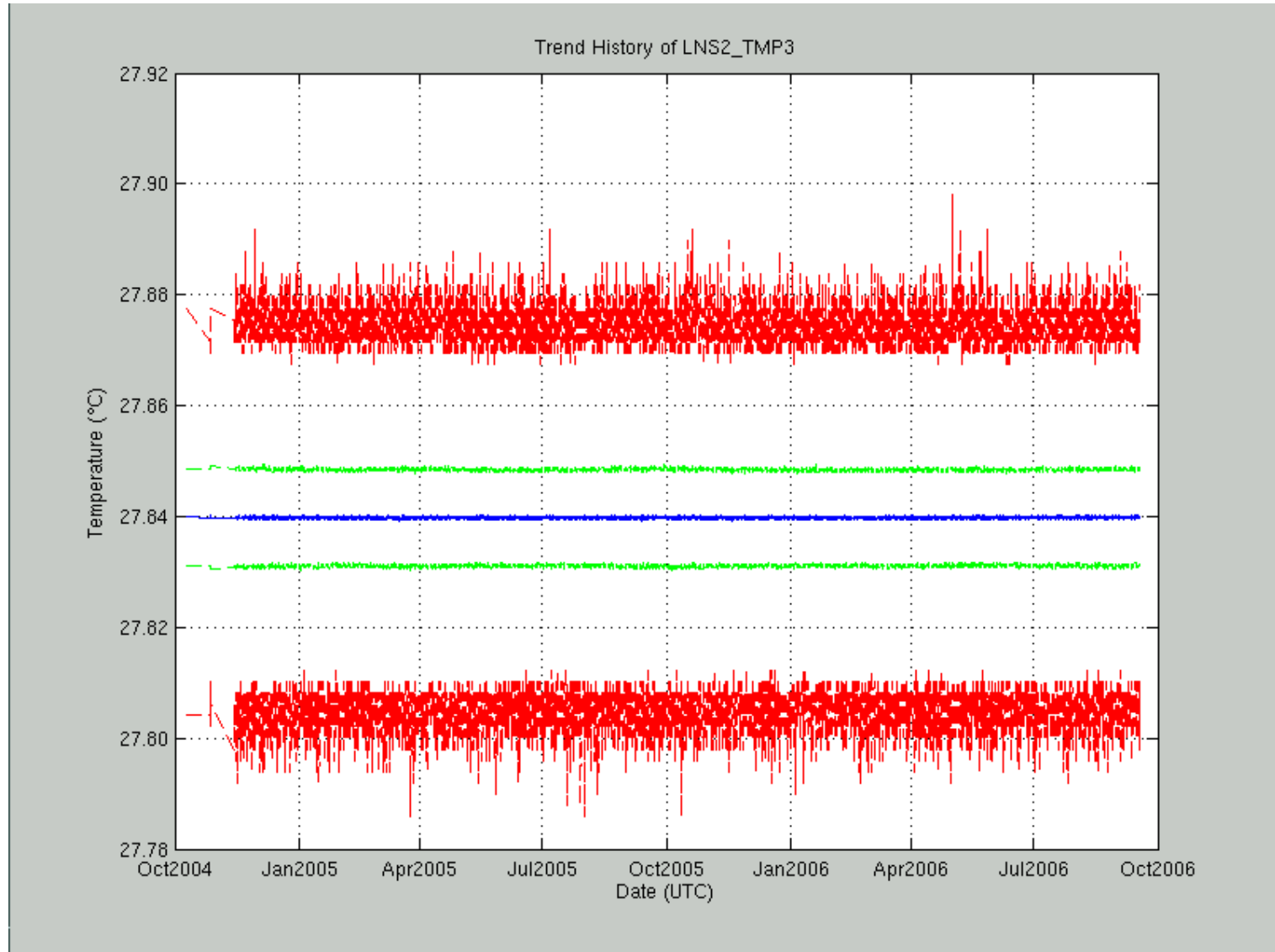
Cooler Compressor amplitude



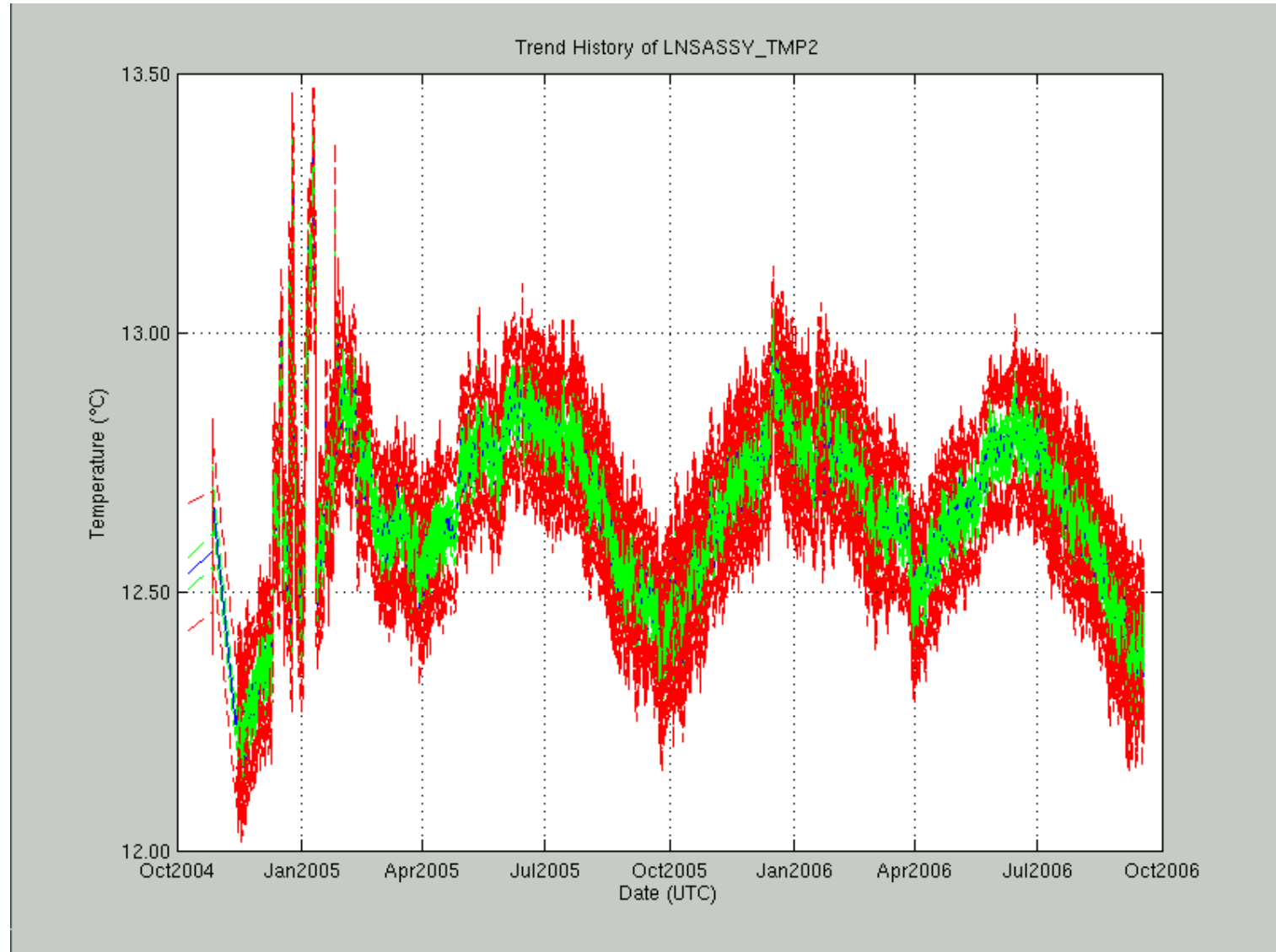
Lens 1 and Warm Filter Assembly



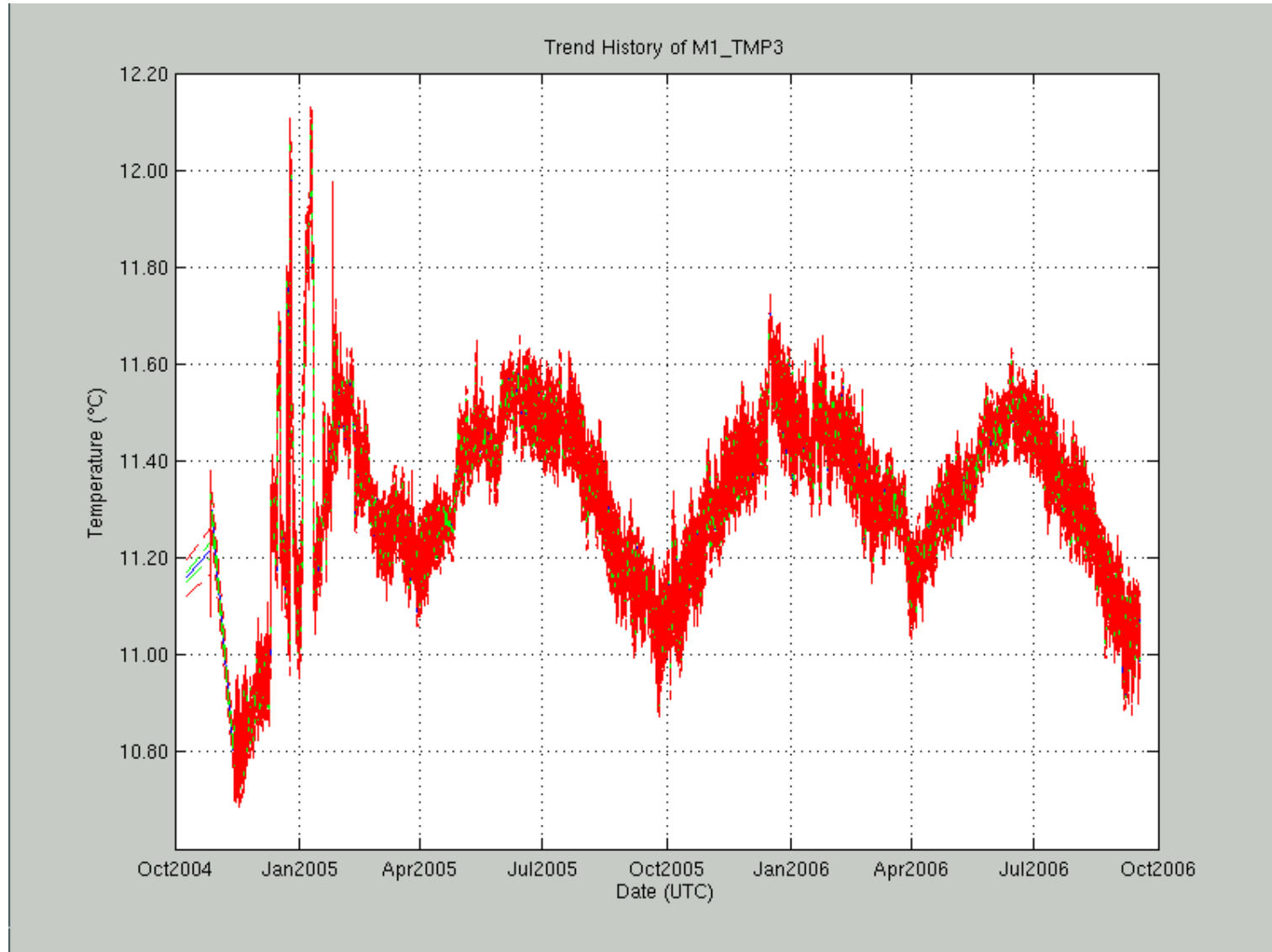
Lens 2 Assembly



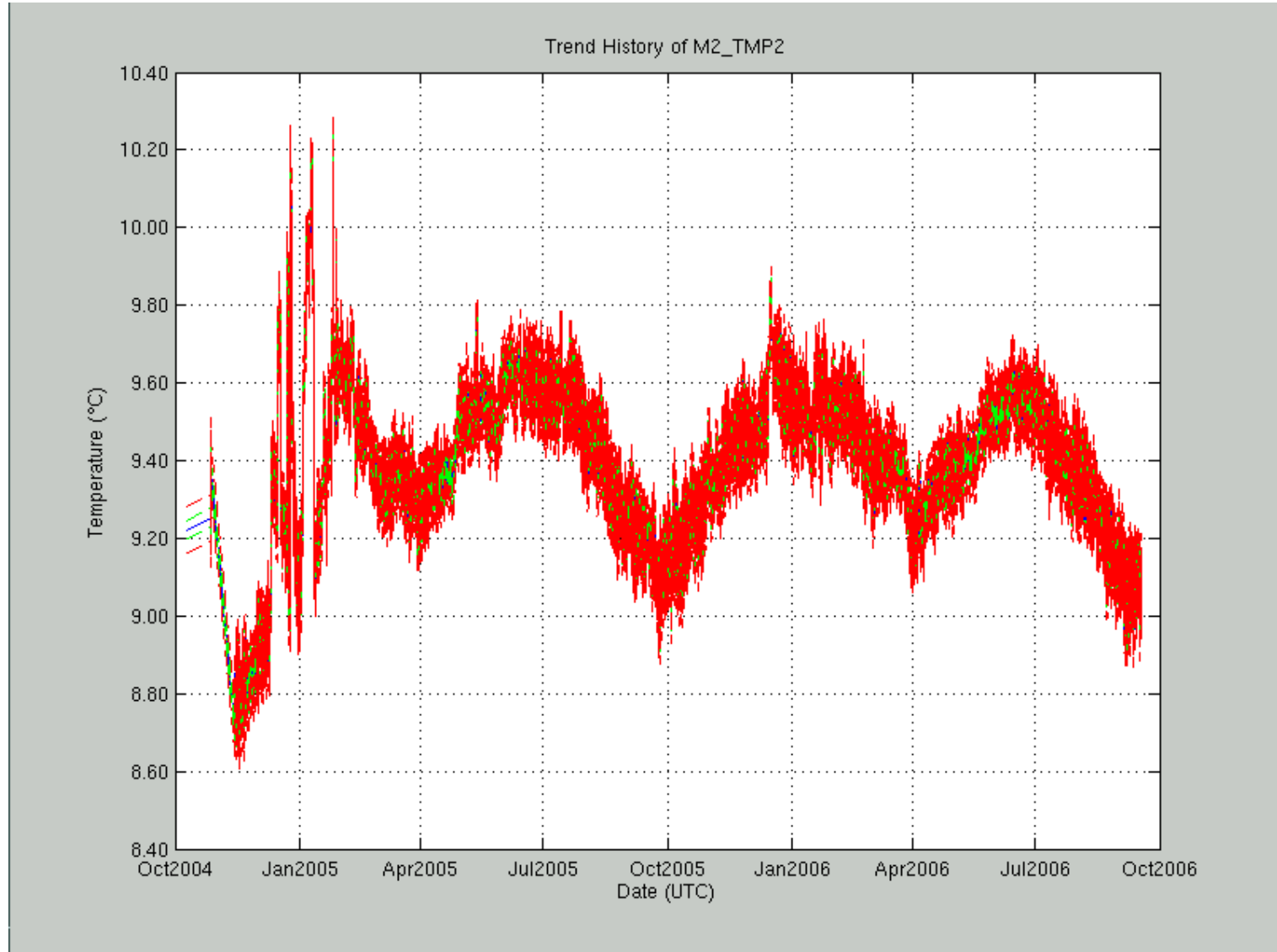
Lens support structure



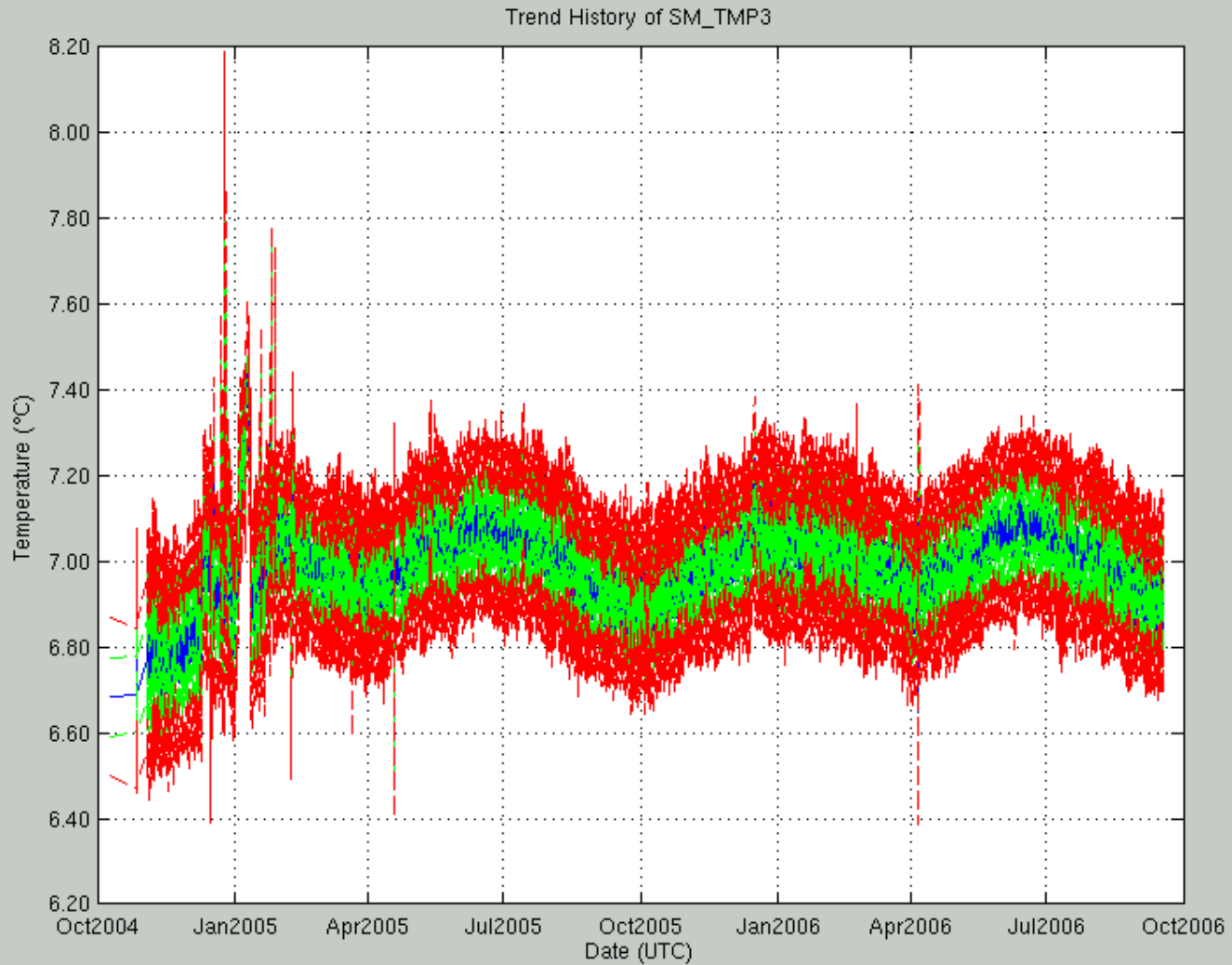
Mirror 1 (secondary)



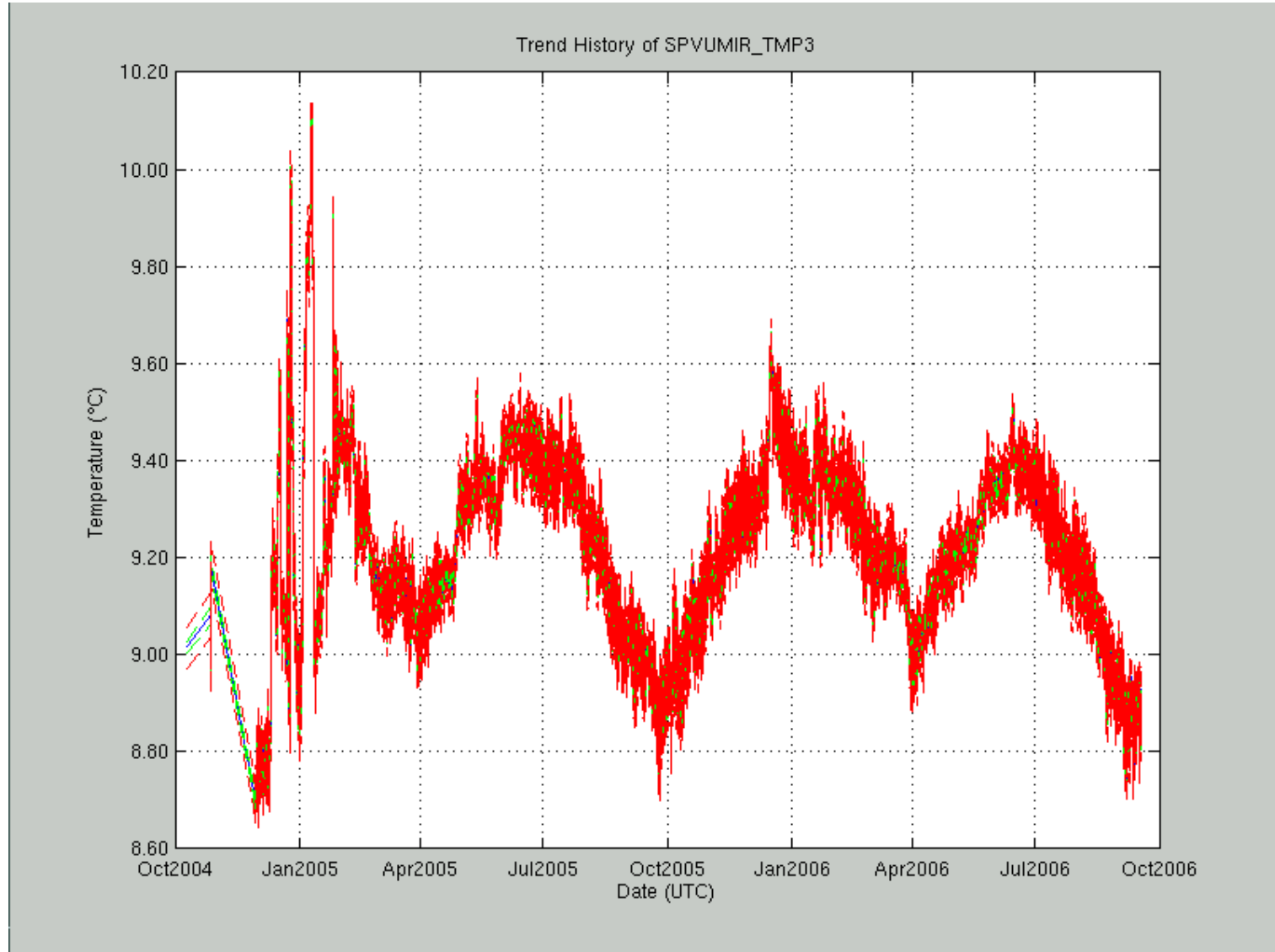
Mirror 2 (primary)



Scan mirror



Space View mirror





Summary



- **In conclusion**
 - **There is every indication that the instrument is remaining thermally very stable - this helps constrain long term shifts in radiometric gain.**
 - **The electronics (not shown here) have shown no increase in power consumption nor temperature.**
 - **The rate of icing of the cold focal plane assembly is so slow that there may be need for only one de-icing procedure.**
 - **The spacecraft power and propellant reserves indicates that the spacecraft could support the mission for 20 years. (Including the requirement to return the spacecraft to earth within 25 years).**