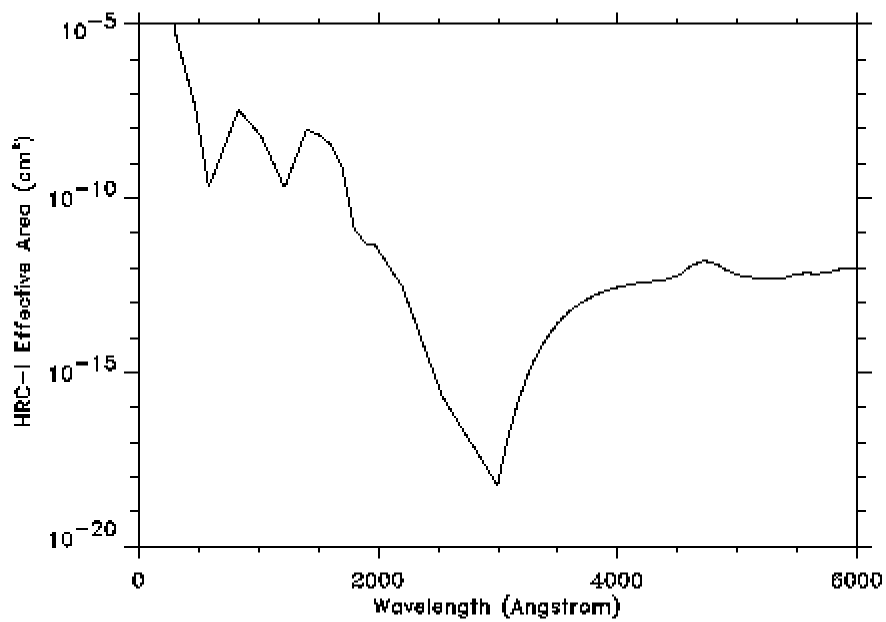
HRC-I Out-of-Band Response

- Nominal modeled effective area 10^{-13}cm^2.
- Measured with Vega, twice in cycle 1 and twice in cycle 2.
  - Count rate < $7\text{x}10^{-4}$/s. ($7\text{x}10^{-4}$/s is the model value.)
- In cycle 3 we will observe Vega and Betelgeuse once each.

Model

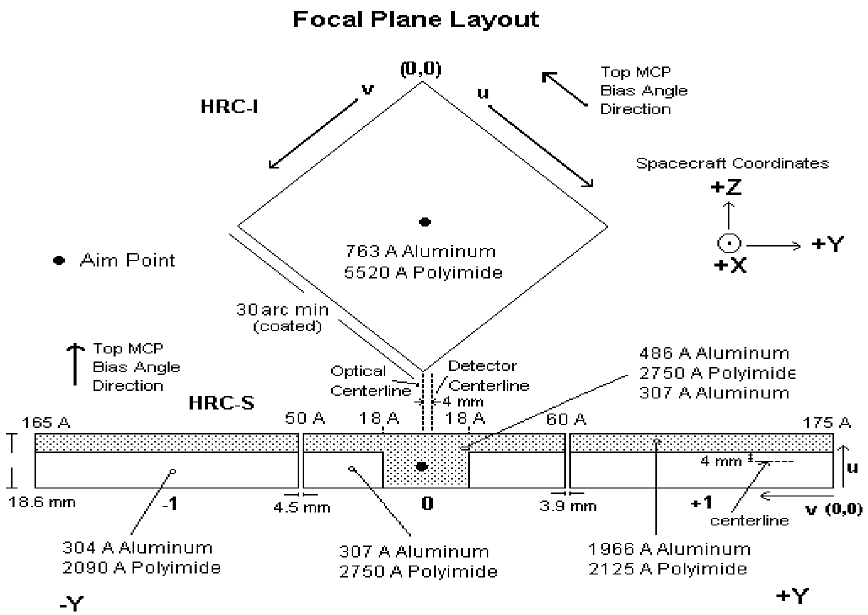


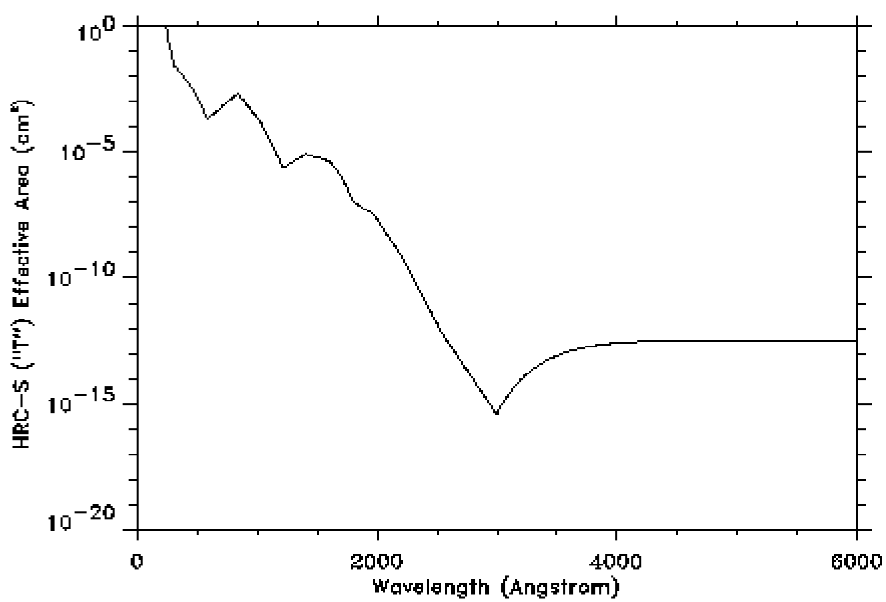
HRC-S Out-of-Band Response

- Separately measured on 4 regions.
  - Seg 0 thick, Seg 0 thin, Seg 1 thin, Seg 1 thick
- Measured with Vega, twice in cycle 1 and twice in cycle 2.
- In general, results are better than predicted (counts/sec):

Region	S0 thick	S0 thin	S1 thin	S1 thick
Predicted	0.9	391	2000	7.4×10^{-4}
Measured	0.16	175	425	$<7.4 \times 10^{-4}$

- In cycle 3 we will observe Betelgeuse on each segment.





ACIS Optical Sensitivity

- No change in reported values since last year.

Stellar Temp.	BI -chip (V mag.)	FI-chip(V mag.)
4000	8.10	2.87
5000	7.93	2.44
6500	7.73	1.79
10000	7.66	1.17

- In cycle 2 we added 2 observations of Betelgeuse along with 2 observations of Vega (1 each ACIS-I & ACIS-S) for monitoring of differential optical sensitivity.
- In cycle 3 we will repeat cycle 2 plus observe Betelgeuse on each I chip for cross-calibration. (Moon observation demonstrated this need.)