

CHARA Classic/Climb Numbers, Baseline Solution and Horizon.



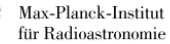
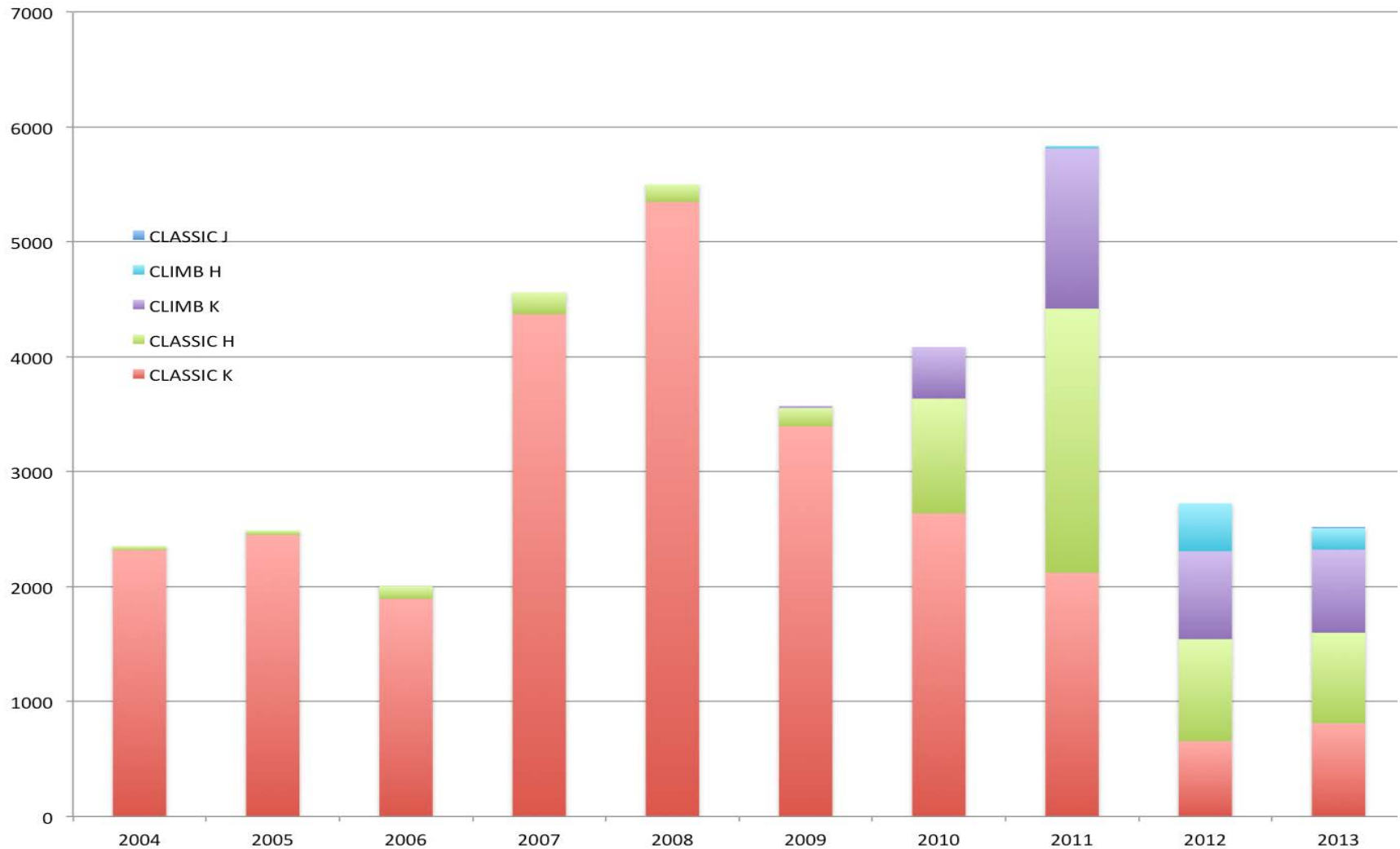


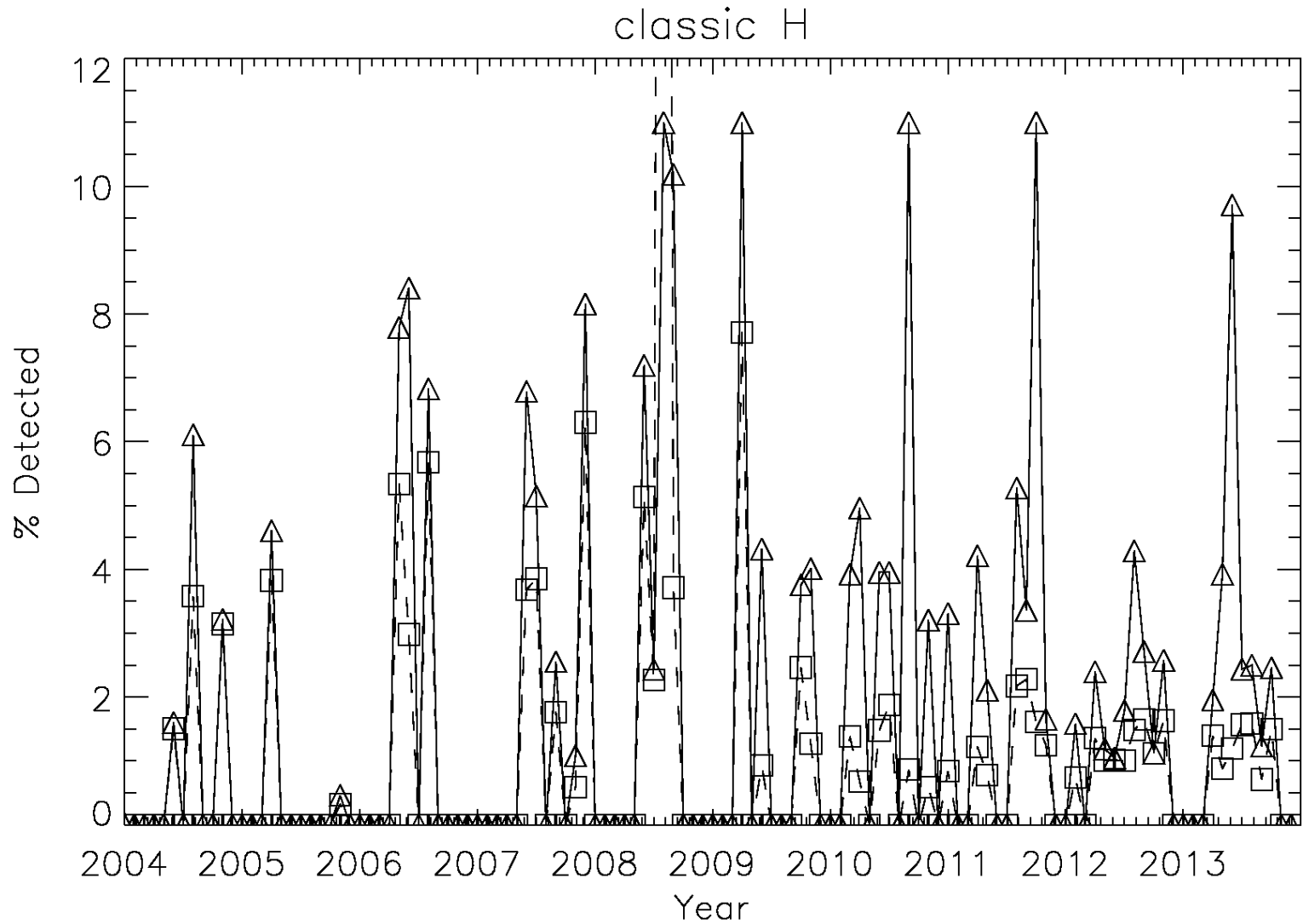
Automated Data Reduction

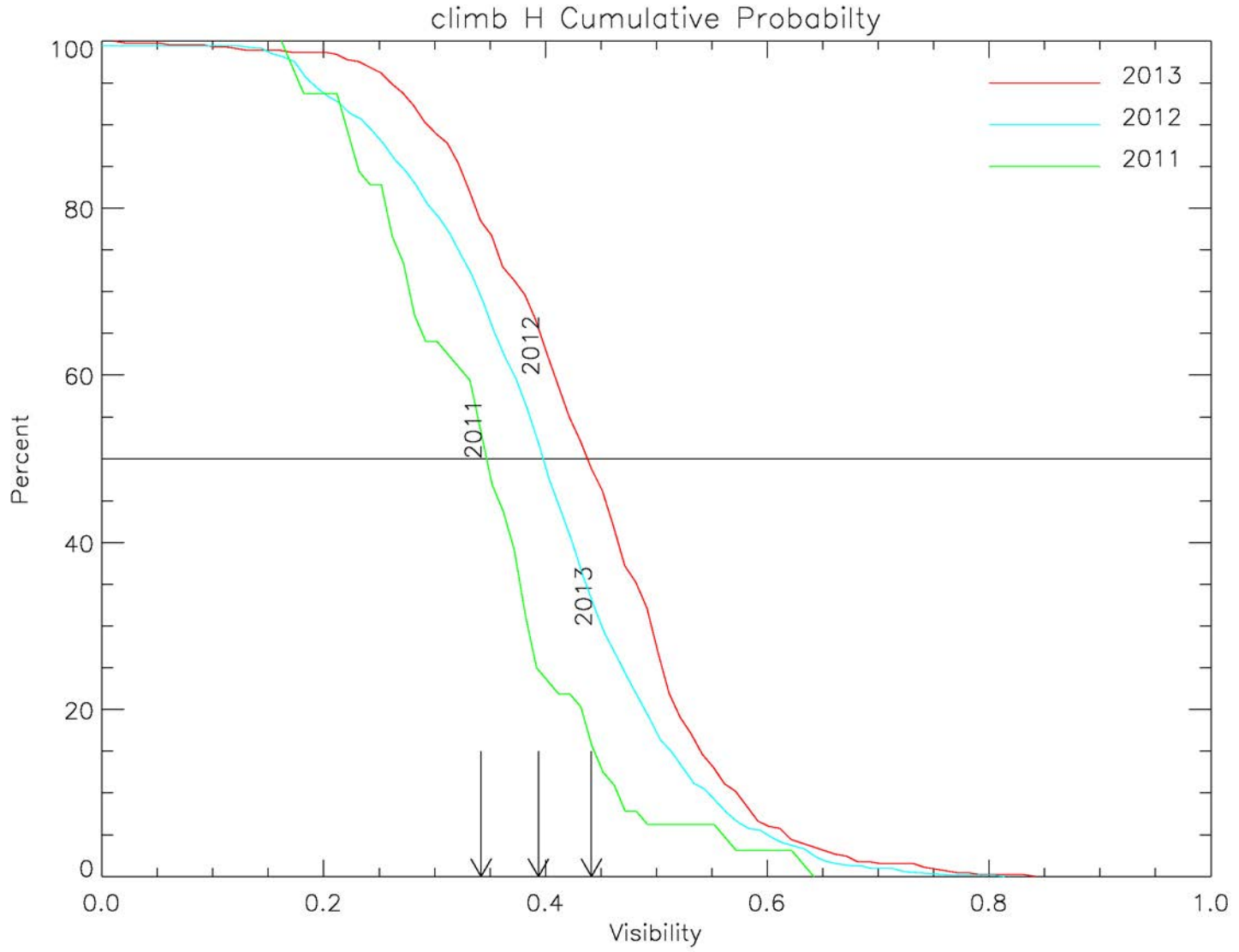
- Automated editing – Fringe > 1.1 Noise Power
- Took approximately 200 minutes to crunch.
- $V < 0$ and $V > 1$ thrown away.
- K, H, J and V magnitudes extracted from 2MASS.
- Stars without 2MASS data are thrown away.
- Includes both calibrators and science targets.
- Perhaps used as Level I data for JMMC Archive.



Amount of Data



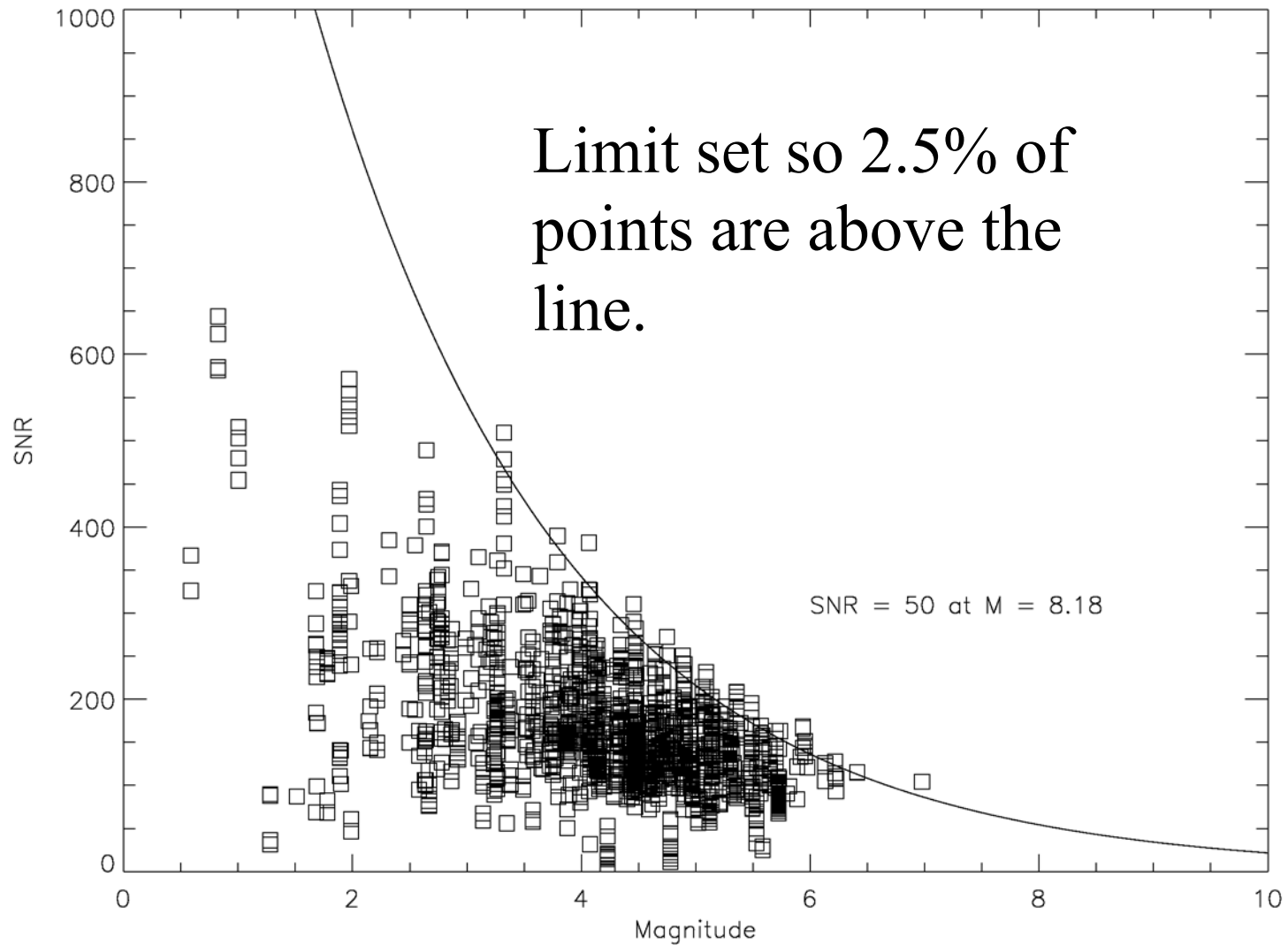






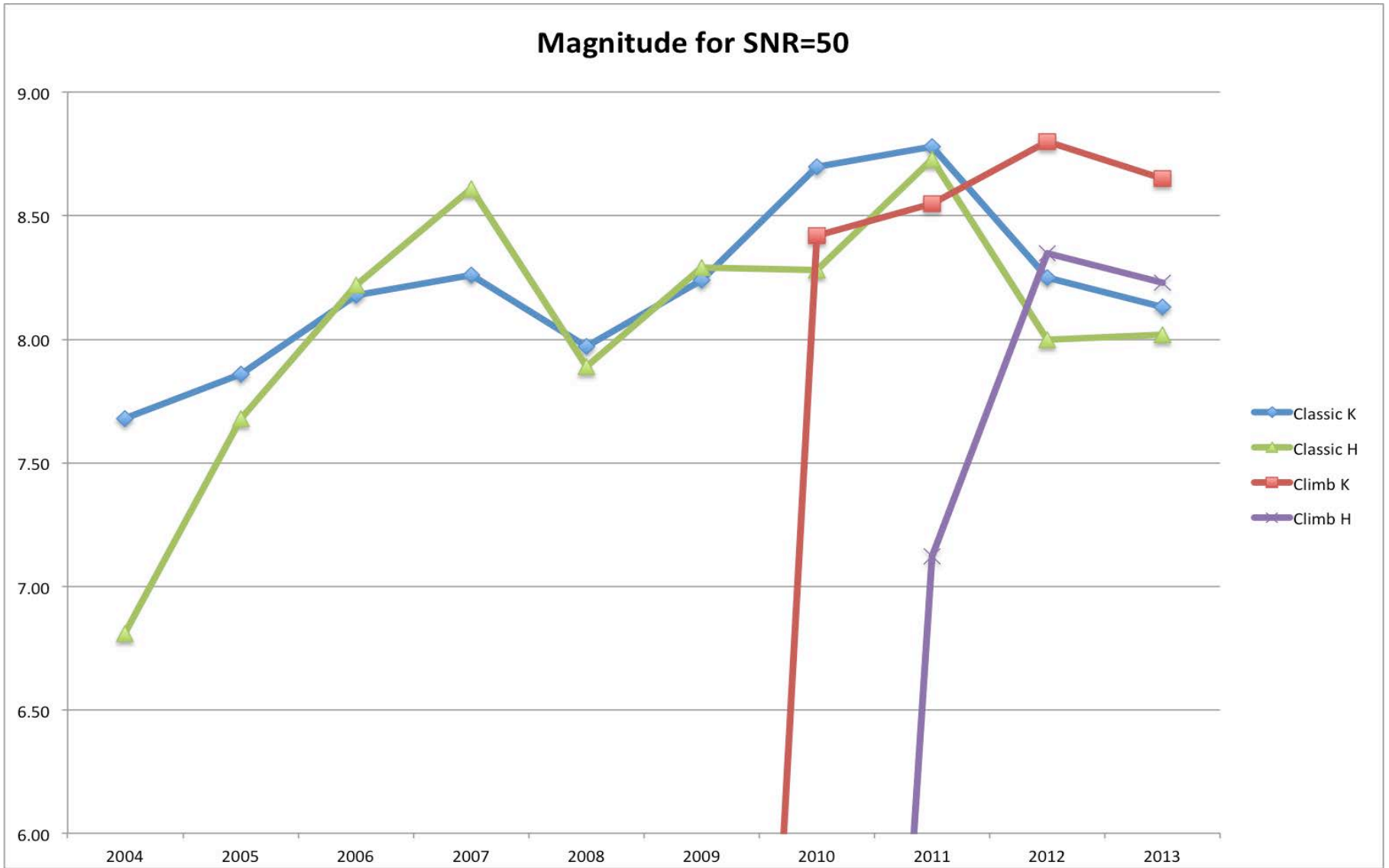
$$\text{SNR} \sim V_{\text{raw}} * \text{sqrt}(N)$$

classic K 2006



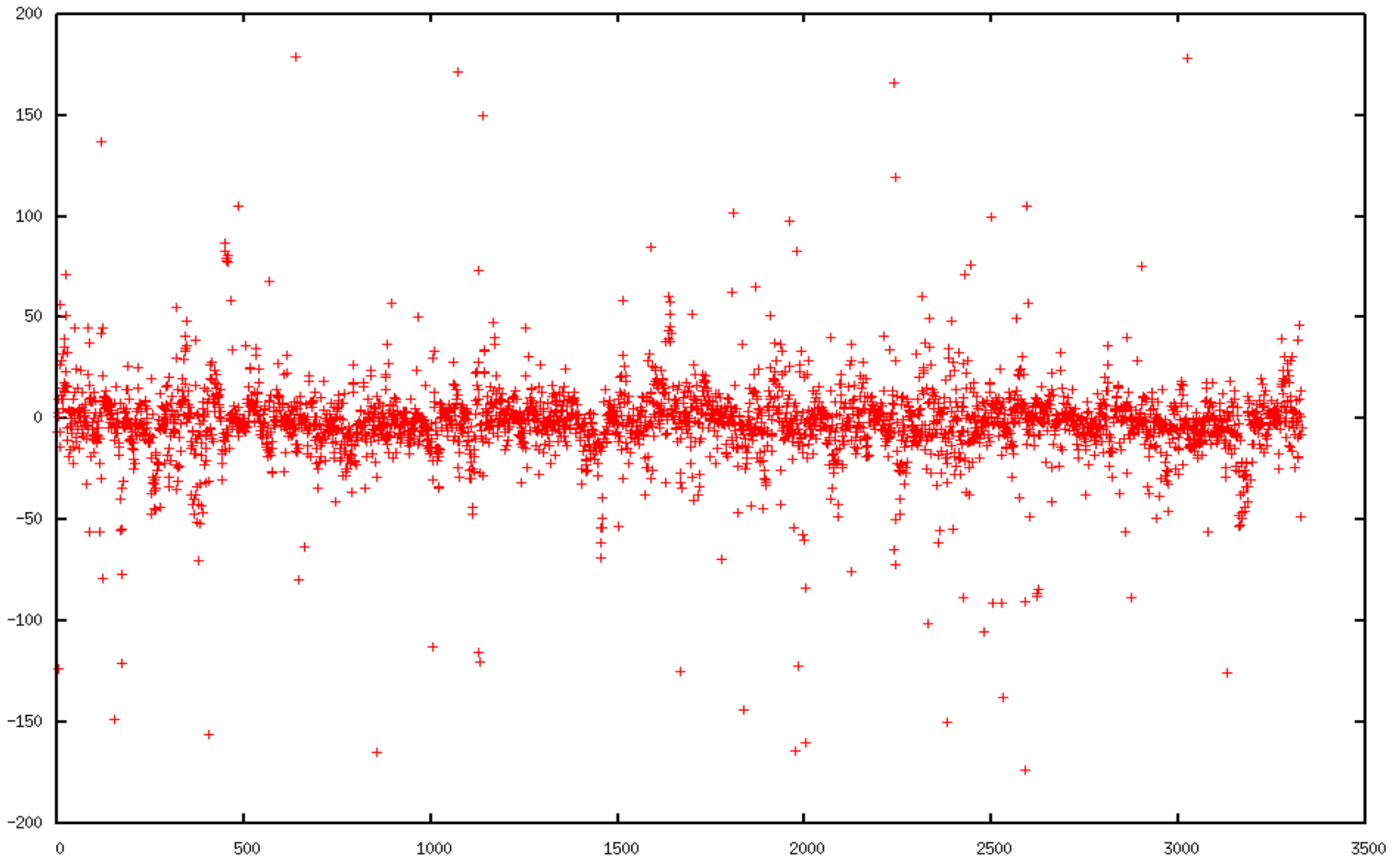


Magnitude for SNR=50





CLIMB – All Closure Phase Measurements

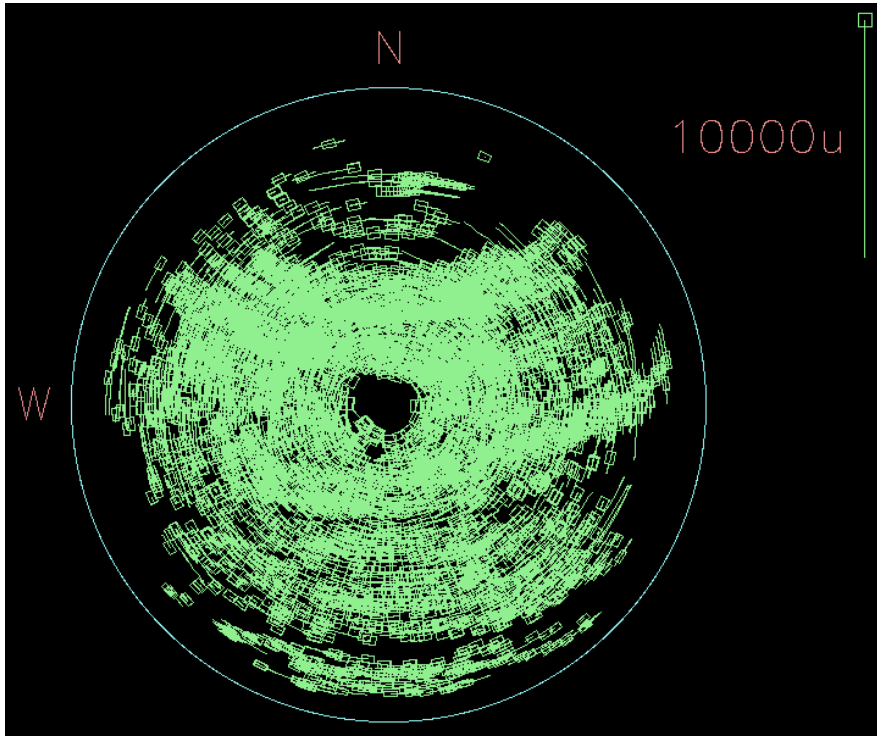


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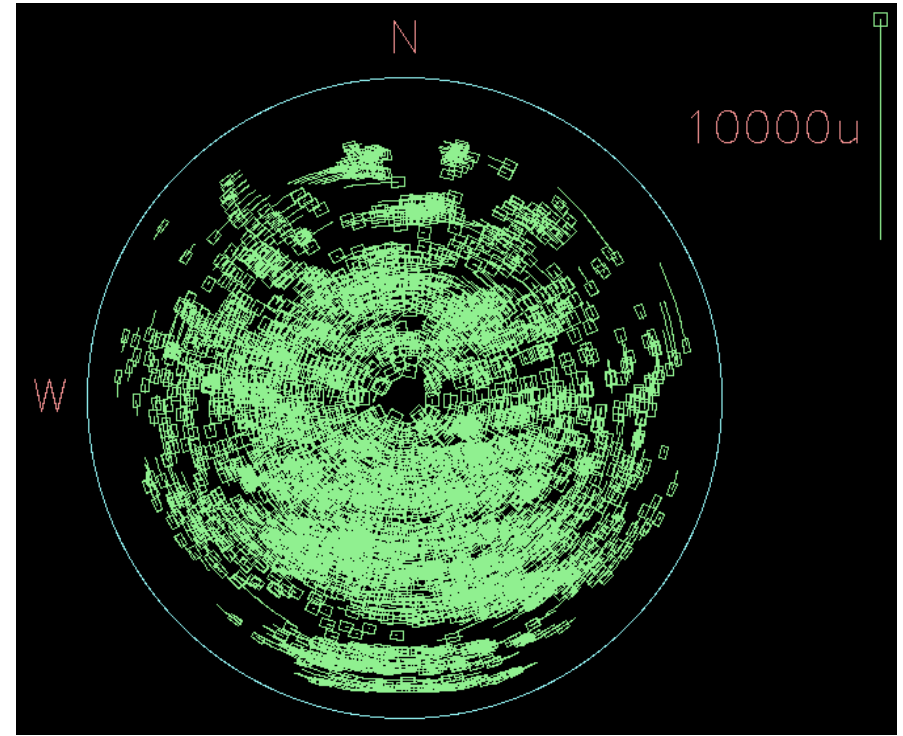


Baseline Solution – Sky Coverage

2012



2013





Baseline Solution Numbers

```
# For telescope S2: value stddev delta (total delta 1895.938)
XOFFSET -5746065.492 113.953 -791.398
YOFFSET 33580338.635 151.708 1222.811
ZOFFSET 636732.829 343.626 -1213.674
LIGHT 3721284.734 47153.944 371609.119
# For telescope E1: value stddev delta (total delta 3334.464)
XOFFSET 125334043.641 49.550 -1565.768
YOFFSET 305932781.248 77.110 1471.577
ZOFFSET -5908828.194 126.936 -2549.801
LIGHT 11261726.081 2648.453 -1931.378
# For telescope E2: value stddev delta (total delta 2895.425)
XOFFSET 70396254.773 71.045 -1406.787
YOFFSET 269713446.561 112.733 1886.347
ZOFFSET -2797359.732 195.234 -1687.048
LIGHT 22687337.813 29704.480 10490.181
# For telescope W1: value stddev delta (total delta 2858.998)
XOFFSET -175070992.399 63.120 -935.583
YOFFSET 216320202.786 69.326 736.382
ZOFFSET -10793647.664 148.648 2599.287
LIGHT 27292366.189 2231.435 -1682.024
# For telescope W2: value stddev delta (total delta 3821.723)
XOFFSET -69092479.284 82.812 1216.347
YOFFSET 199331814.339 116.217 3603.883
ZOFFSET 465570.738 218.903 -371.614
LIGHT -10879610.451 43922.371 15495.534
```

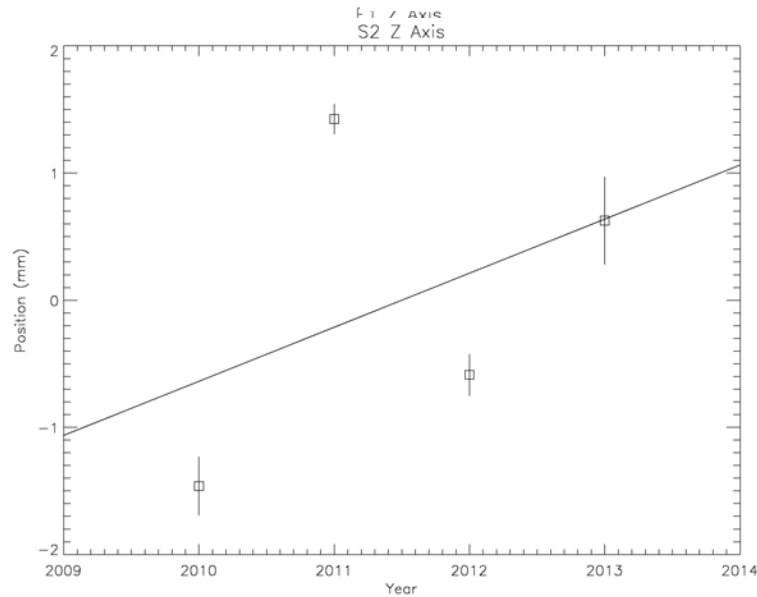
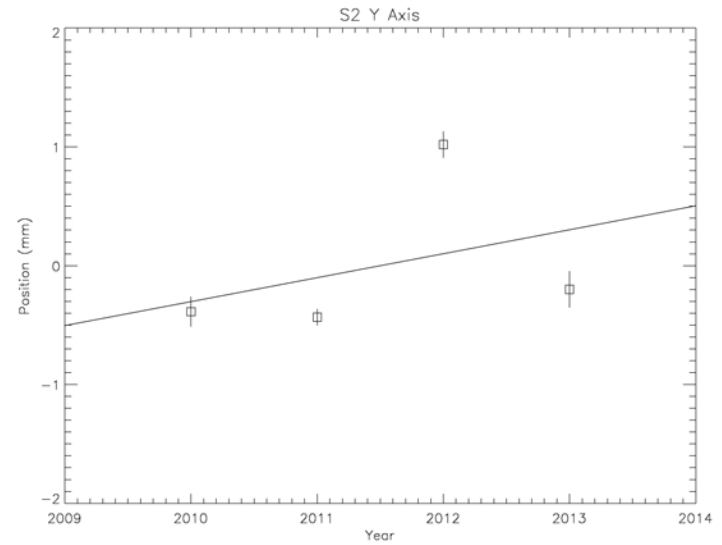
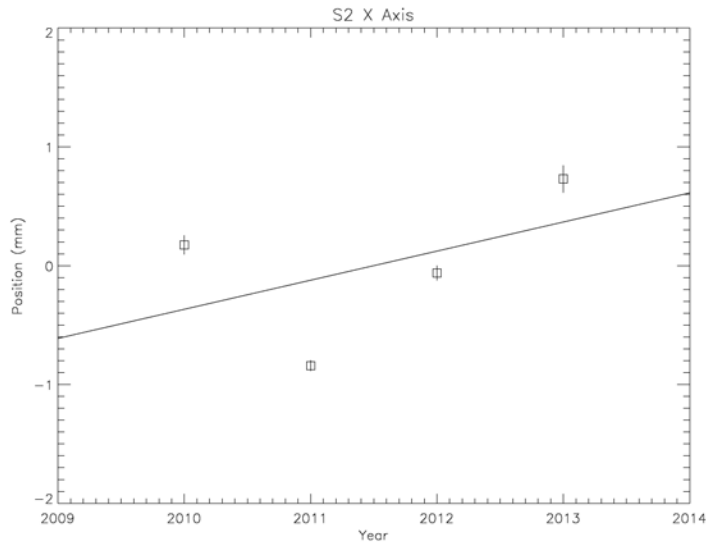


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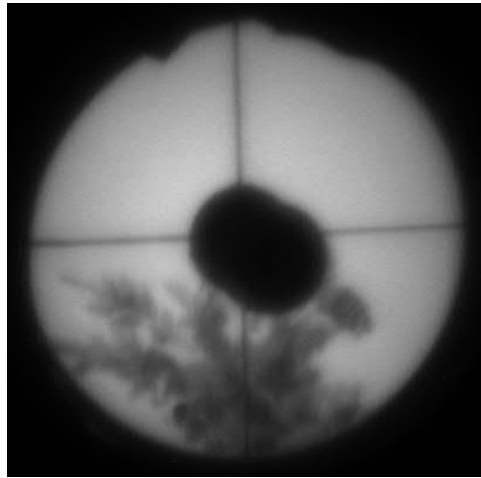


Baseline Solution – Are the Scopes Moving?

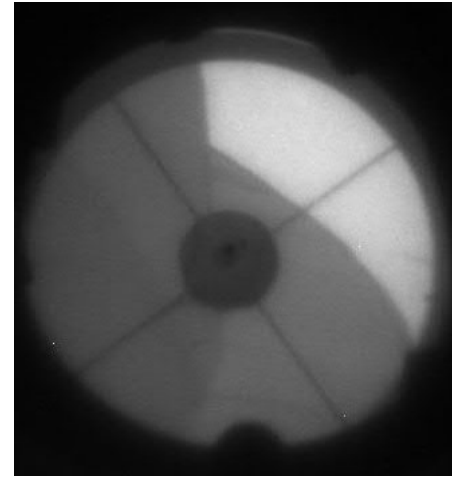




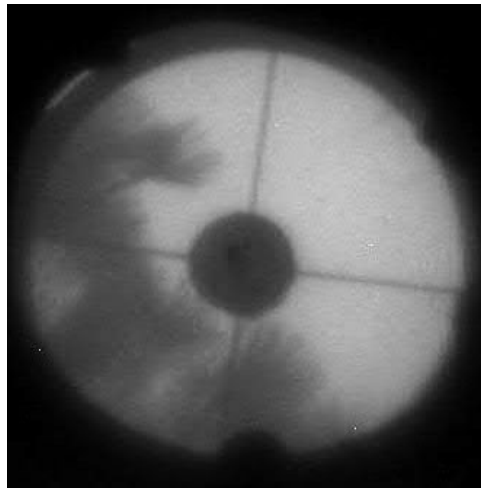
Baseline Solution – The Horizon



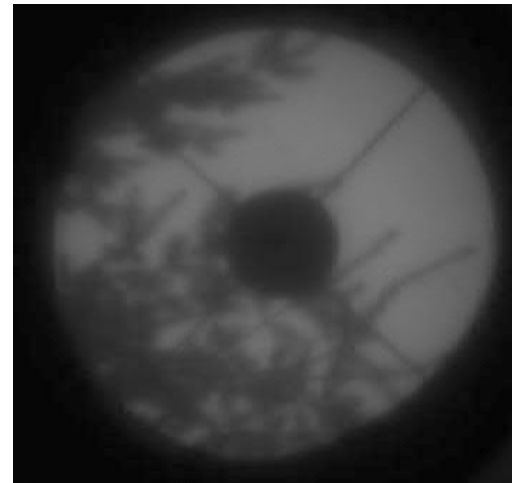
W1 Az 33 El 22



S2 Az 243 El 23



S2 Az 305 El 38



E2 Az 254 El 22



Baseline Solution – The Horizon

