

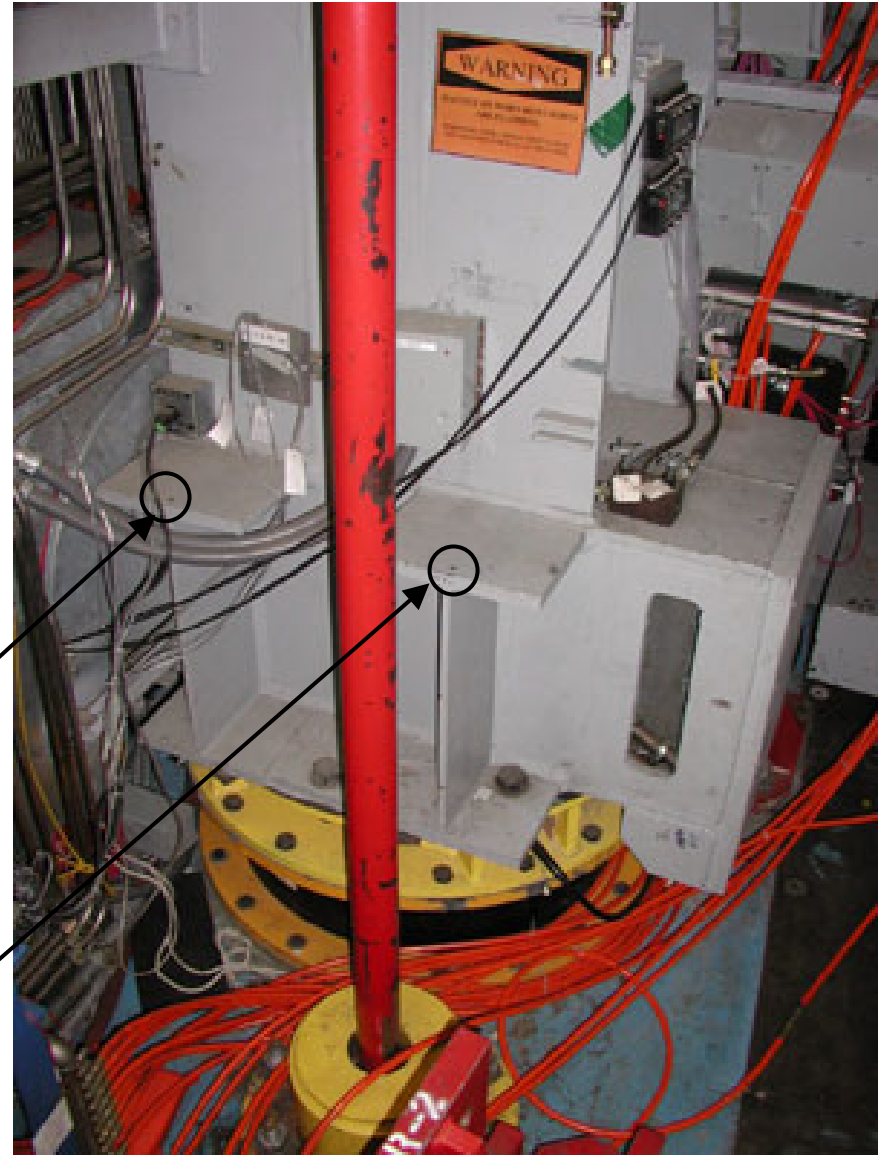
BaBar Network

July 01-03, 2002

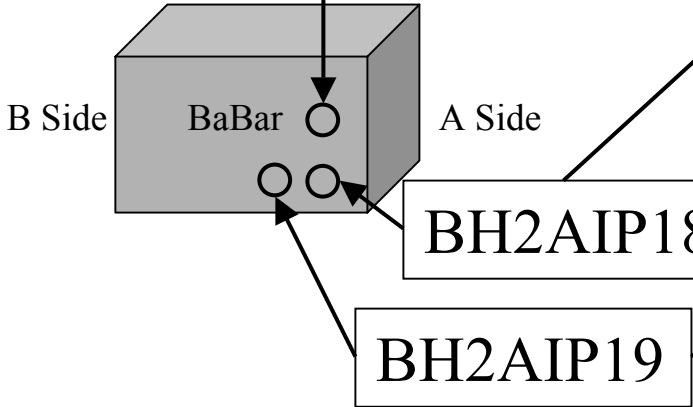
- Detector Area:
 - 19 monuments.
 - 4 magnets (Q4 and Q5 on both A and B side).
- A side:
 - 8 monuments.
 - 12 magnets (1 HER, 11 LER).
- B side:
 - 17 monuments.
 - 25 magnets (4 HER, 21 LER).

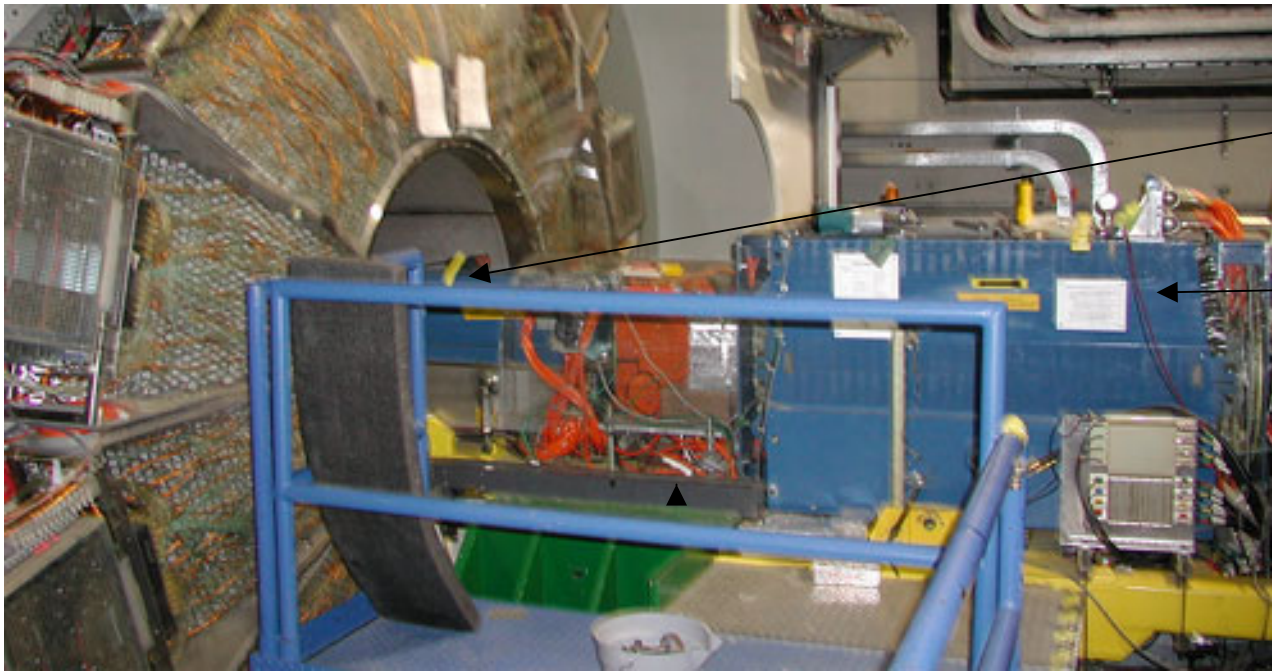
BaBar Fiducials

- 12 possible holes on the body (BH2AIP1x)
 - 6 on each face (1,2,3,10,11,12 / 4,5,6,7,8,9)
 - 8 on the bottom and 4 at split plane (1,4,7,10).
- 9 holes accessible with tracker
 - 3 shots on 1, 4, 7.
 - 2 shots on 3, 5, 8, 9, 10, 11.



BH2AIP17





Q4

Q5

Q4

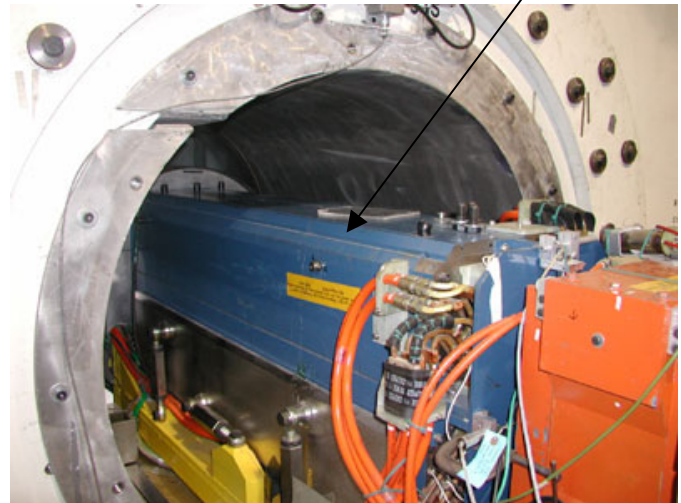
Q5

Q4



A Side

B Side



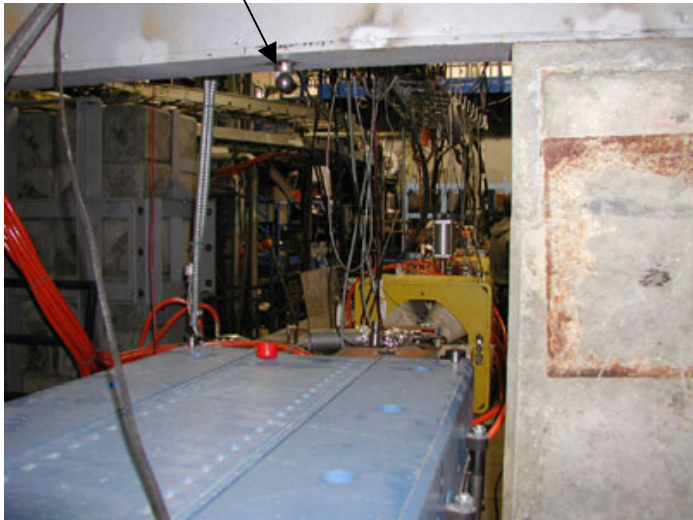


2TP

TP2

WINDOW

PEP2BWIN



A Side

B Side



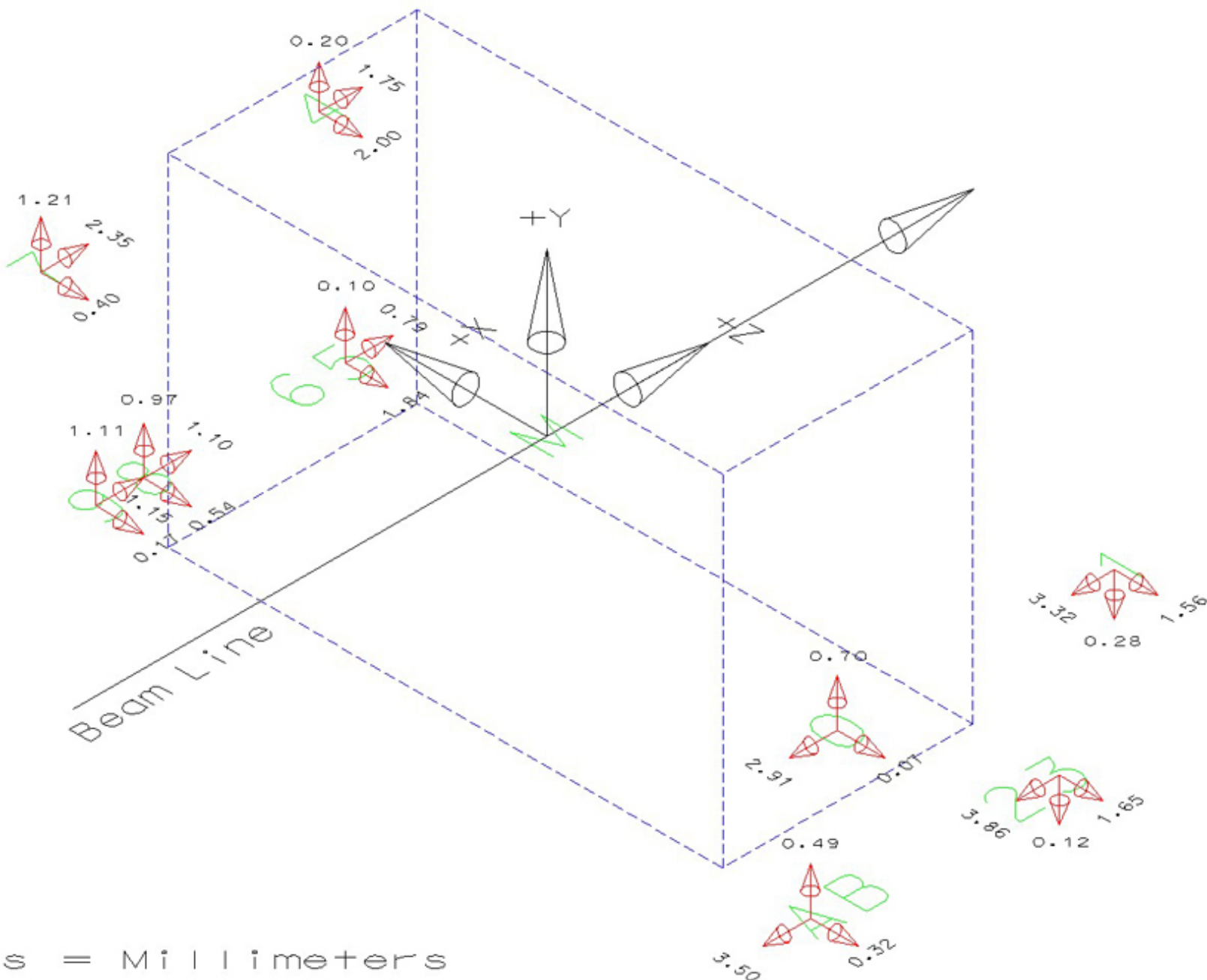
Network Description

- 33 Tracker Stations
- 233 Reference Points
- 841 Triplet Observations
 - Distance $40 \mu\text{m}$, horizontal angle $30 \mu\text{m} / D$, vertical angle $50 \mu\text{m} / D$
- 142 Level Differences
 - Height difference $50 \mu\text{m}$

Network Results

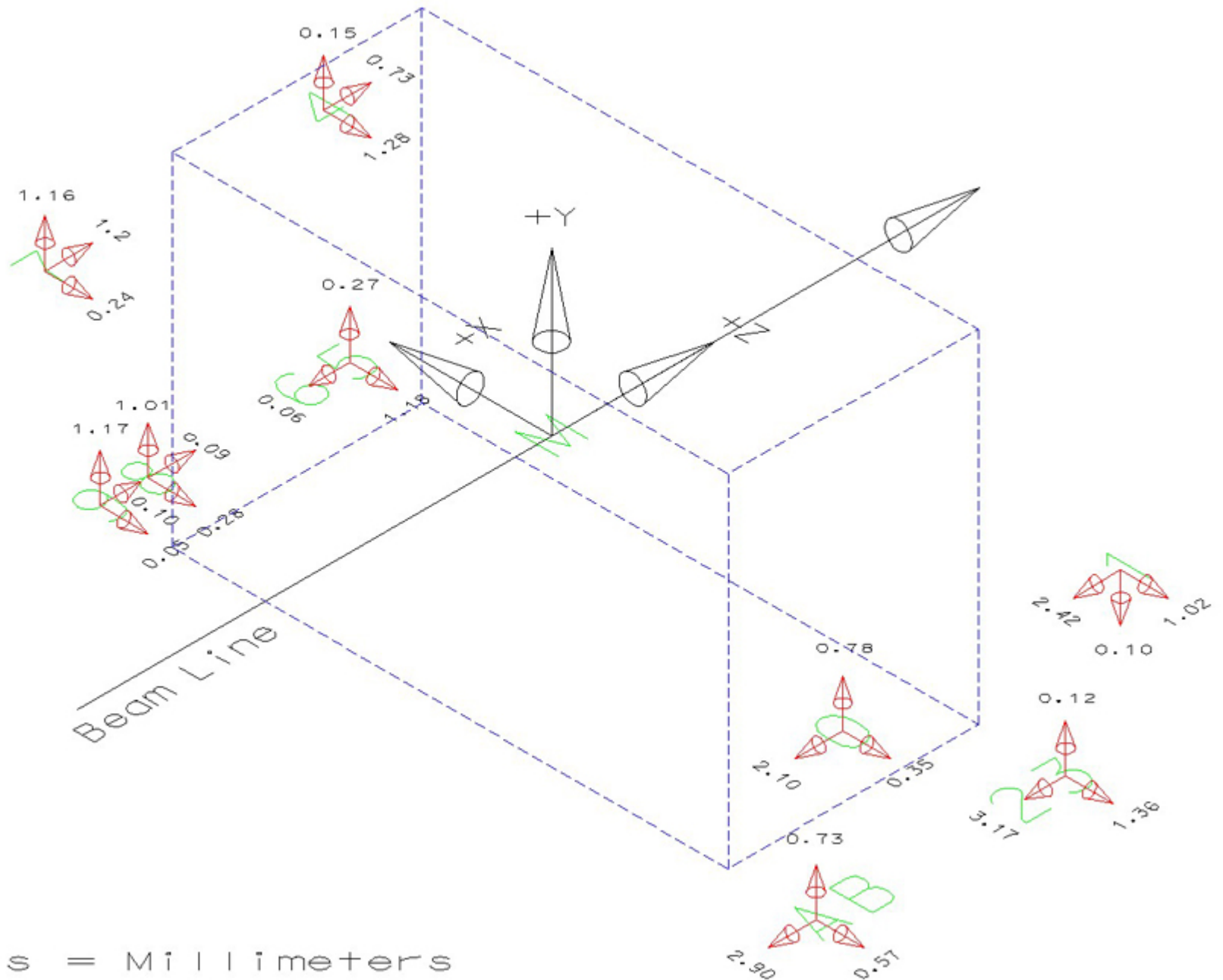
- Variance Analysis
 - degree of freedom 1682
 - sigma a posteriori 0.799015
(distance: 0.822317, horizontal angle: 0.834594,
vertical angle: 0.693845, height difference: 0.973788)
- Normalized Residuals
 - pass the Chi2 goodness of fit test

2002 Babar Moves



Units = Millimeters

2000 Babar Moves



Units = Millimeters

Computational Steps

- Start with year 2000 adjustment results.
- Fit detector to the neighboring magnets: 6 on each side (HER: Q5, Q4 and LER: QL, QM, QN, QO).
- Produce 2000 moves and export neighboring monuments (44 total).
- Use the previous monument positions in the year 2002 adjustment to produce 2002 moves.