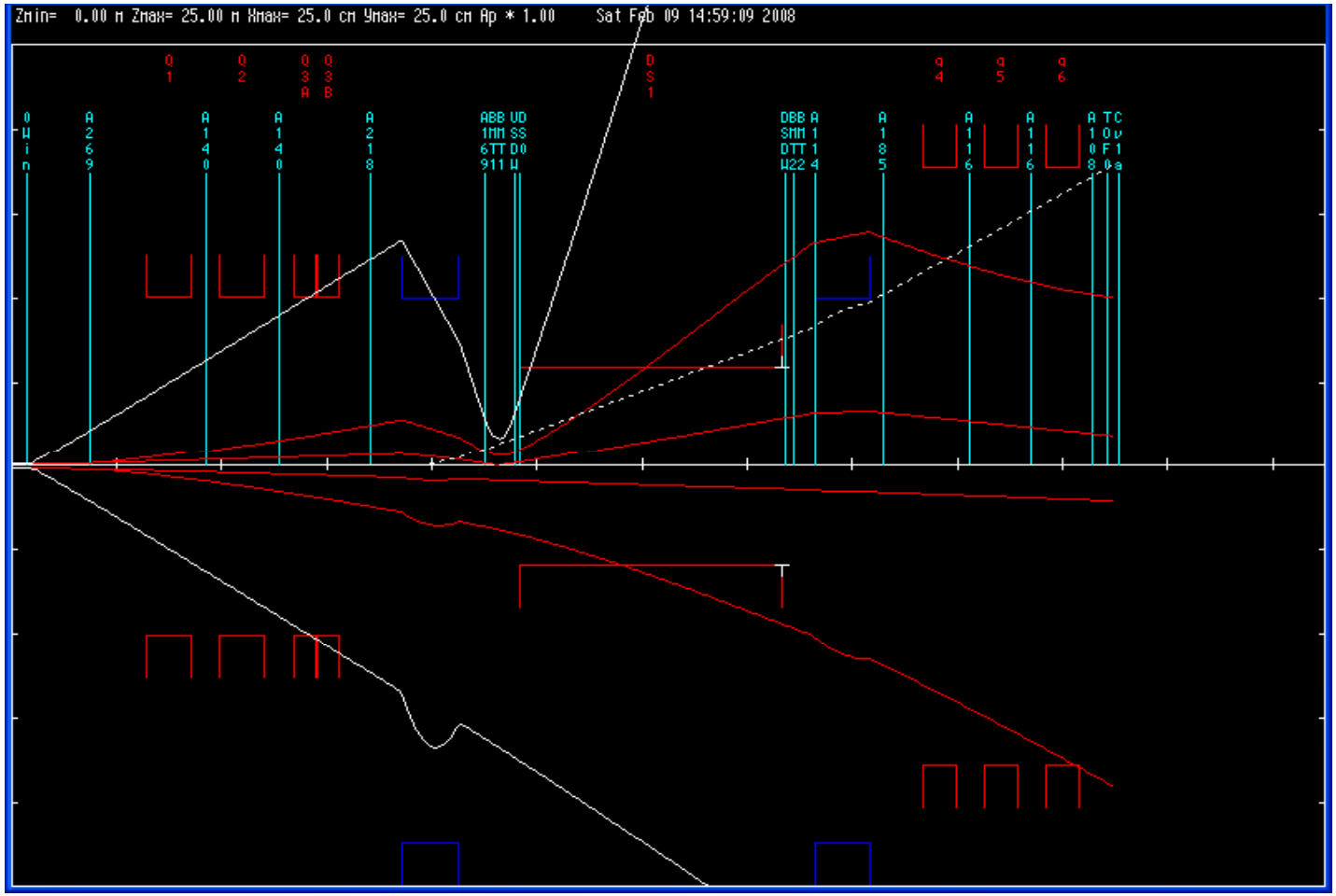
Initial proton beamline. – minimum optics (Q1,2 only)

Game: minimise beam profile along channel to maximise solid angle acceptance & transported flux.

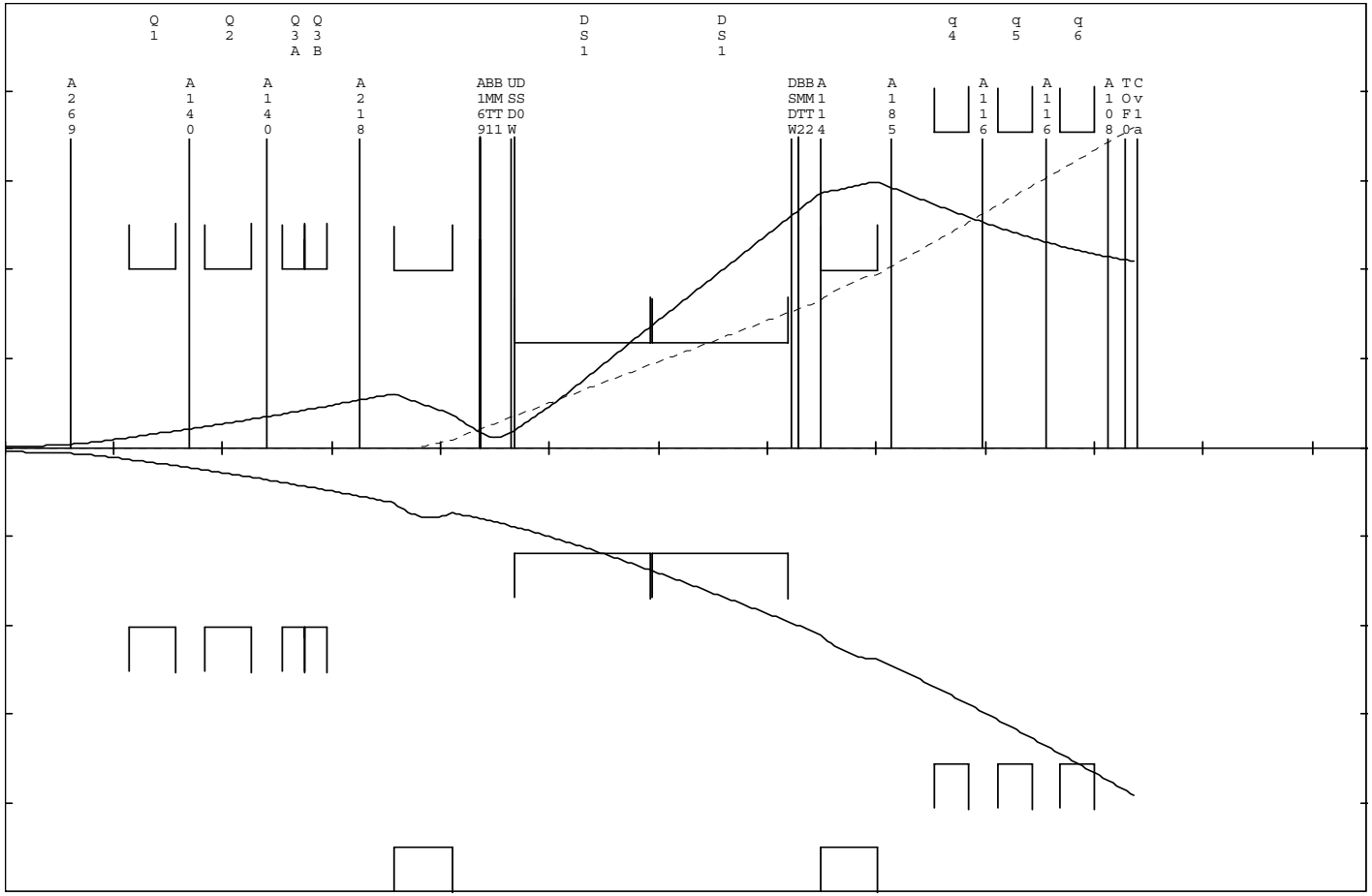
Initial proton beamline. – minimum optics (Q1,2 only)

1st: All materials in. No quads. Air notable. 2mm ISIS vacuum window quite serious.



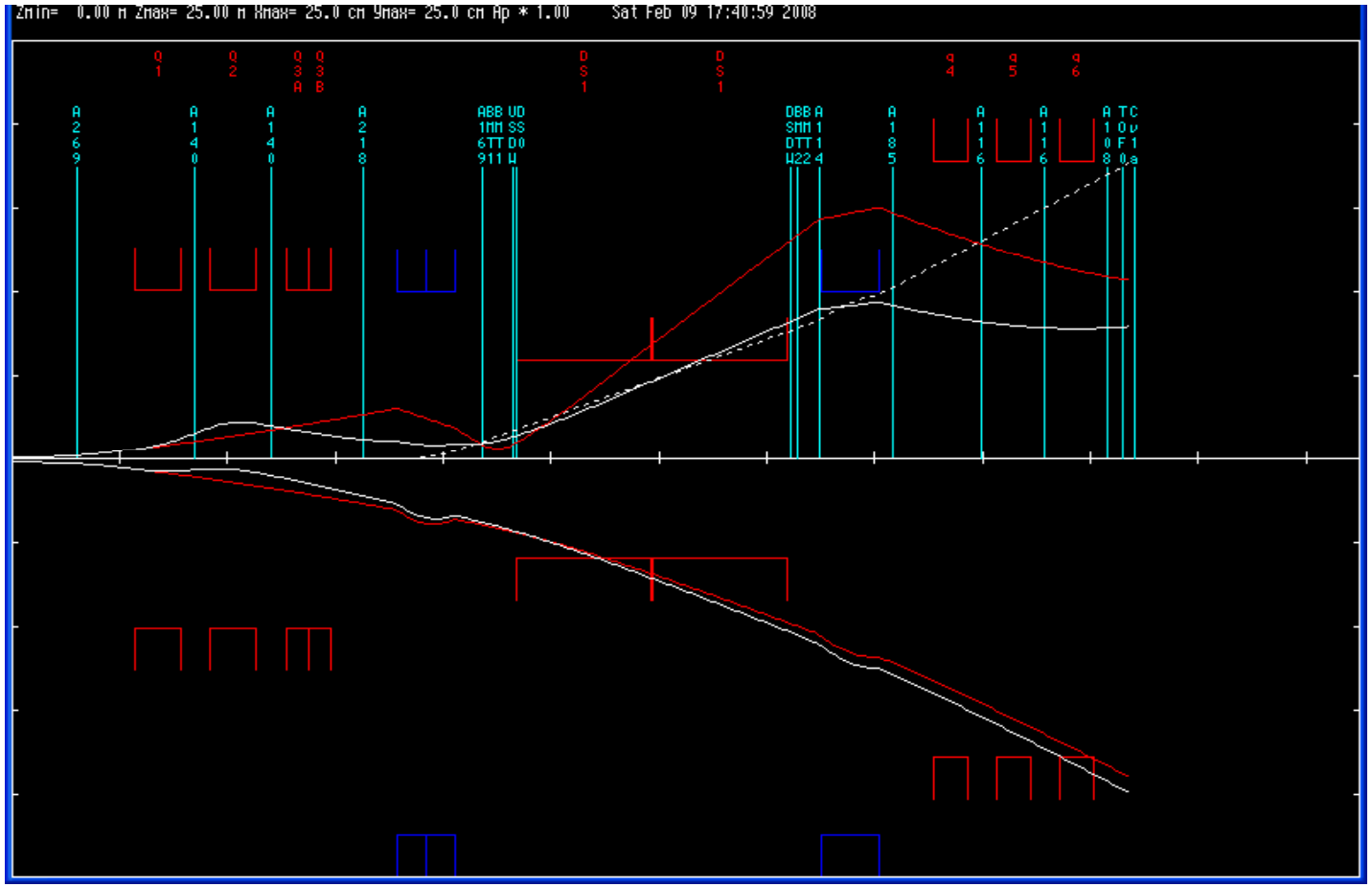
Initial pion beamline. – minimum optics (Q1,Q2 only)

2nd: Starting downstream of 2mm ISIS vacuum window



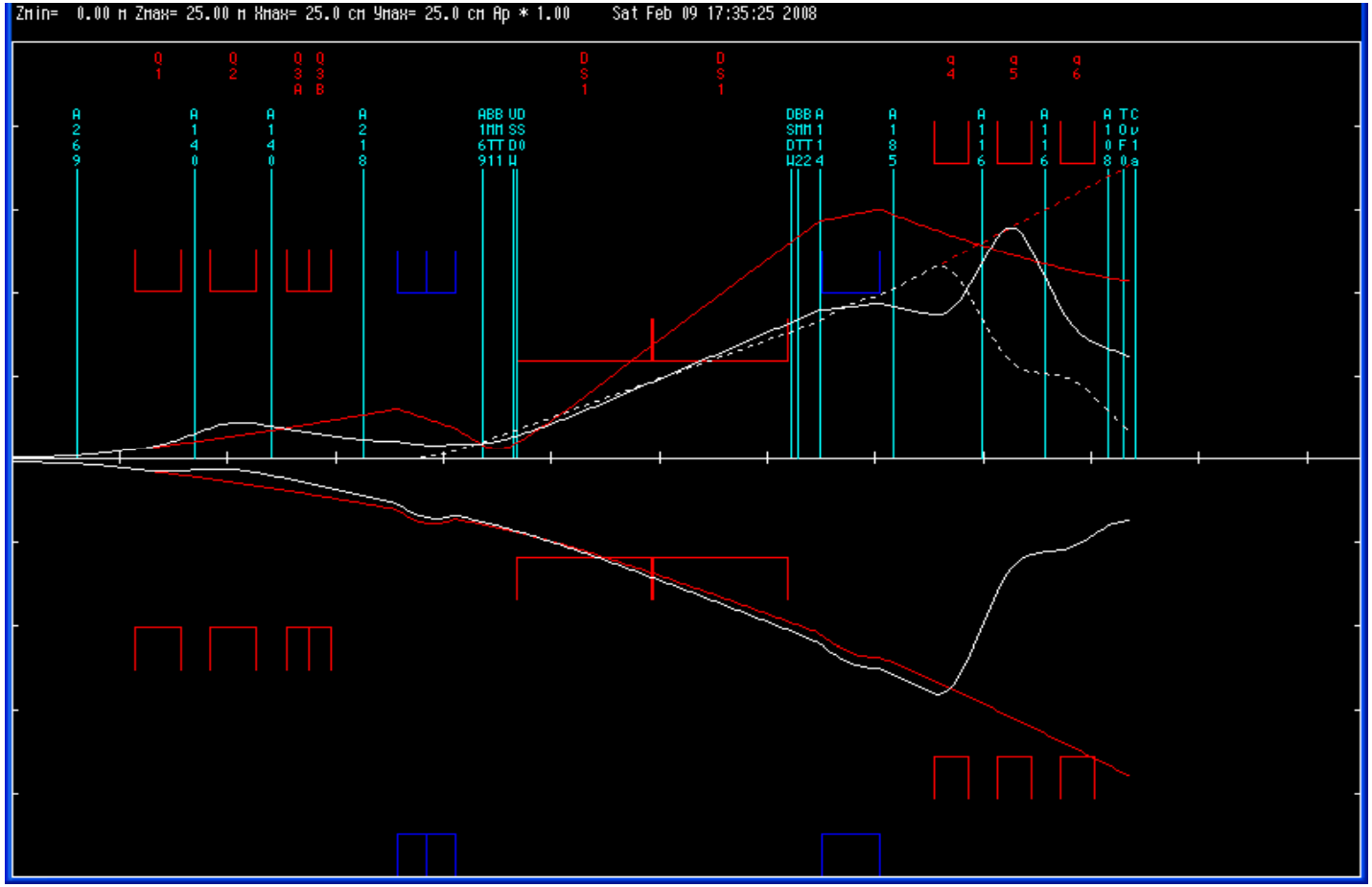
Initial proton beamline. – minimum optics (Q1,Q2) only

3nd: Using Q1,Q2: unoptimum, but visible improvement



Initial proton beamline. –optics (Q1,Q2) & (Q4,5,6) only

4th: Using Q1,Q2: unoptimum, in case (Q1,Q2) & (Q4,5,6) available



Initial proton beamline. –optics (Q1,Q2) & (Q4,5,6) only

FINAL: (Q1,Q2) & (Q4,5,6):-

Now scaling to local momenta, as provided by Tom.
From 530MeV/c from the target ->~500MeV/c in B1 (~ max sustaintable):-

Q1 +1.6473T m-1	*~ 512.8MeV/c*
Q2 -1.6286T m-1	*~ 510.5MeV/c*
Q3 0 Tm-1	*~ 509MeV/c*
B1 1.622 T	*~ 505.3MeV/c*
B2 0.738 T	*~ 463.8MeV/c*
Q4 1.5355 T m-1	*~ 460MeV/c*
Q5 -2.04874 T m-1	*~ 458.2MeV/c*
Q6 1.35199 T m-1	*~ 455.7MeV/c*

Next = see if a triplet lattice can be found (Q1,Q2,Q3) & improve things? if the Q3 power supply becomes available.