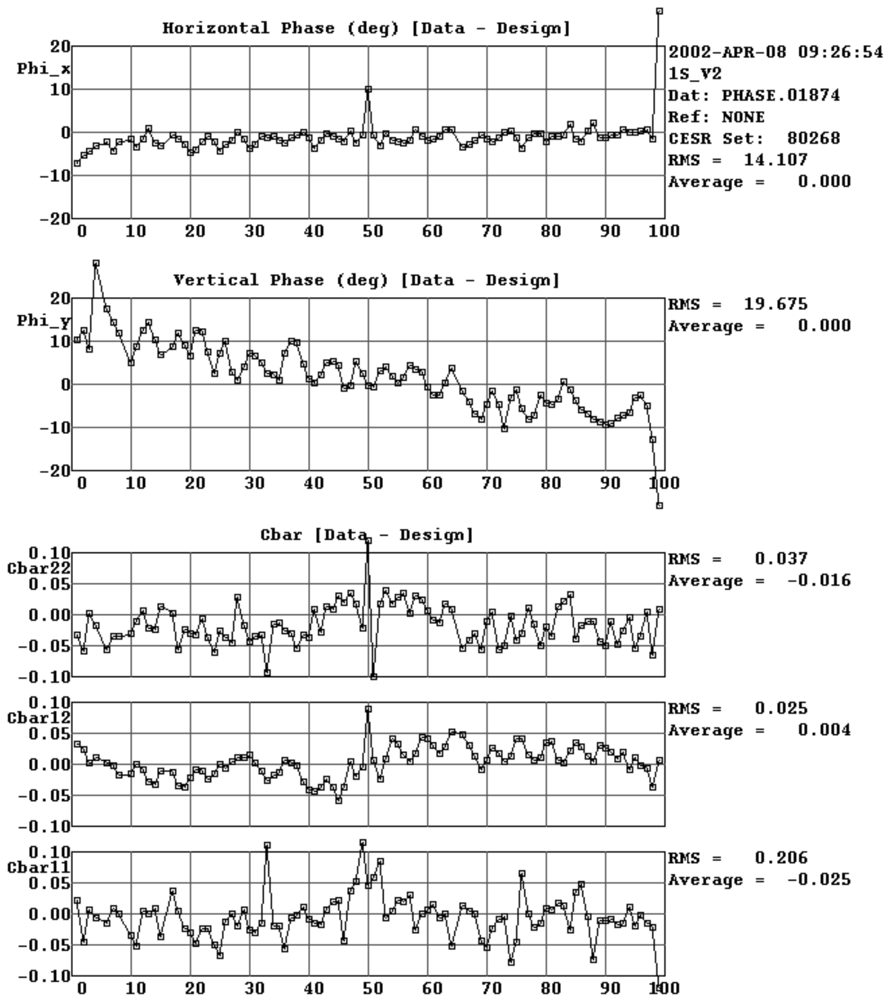
— SCMATING Knobs 1, 2, 3, 4, and 5 —
Phase and Coupling Measurements

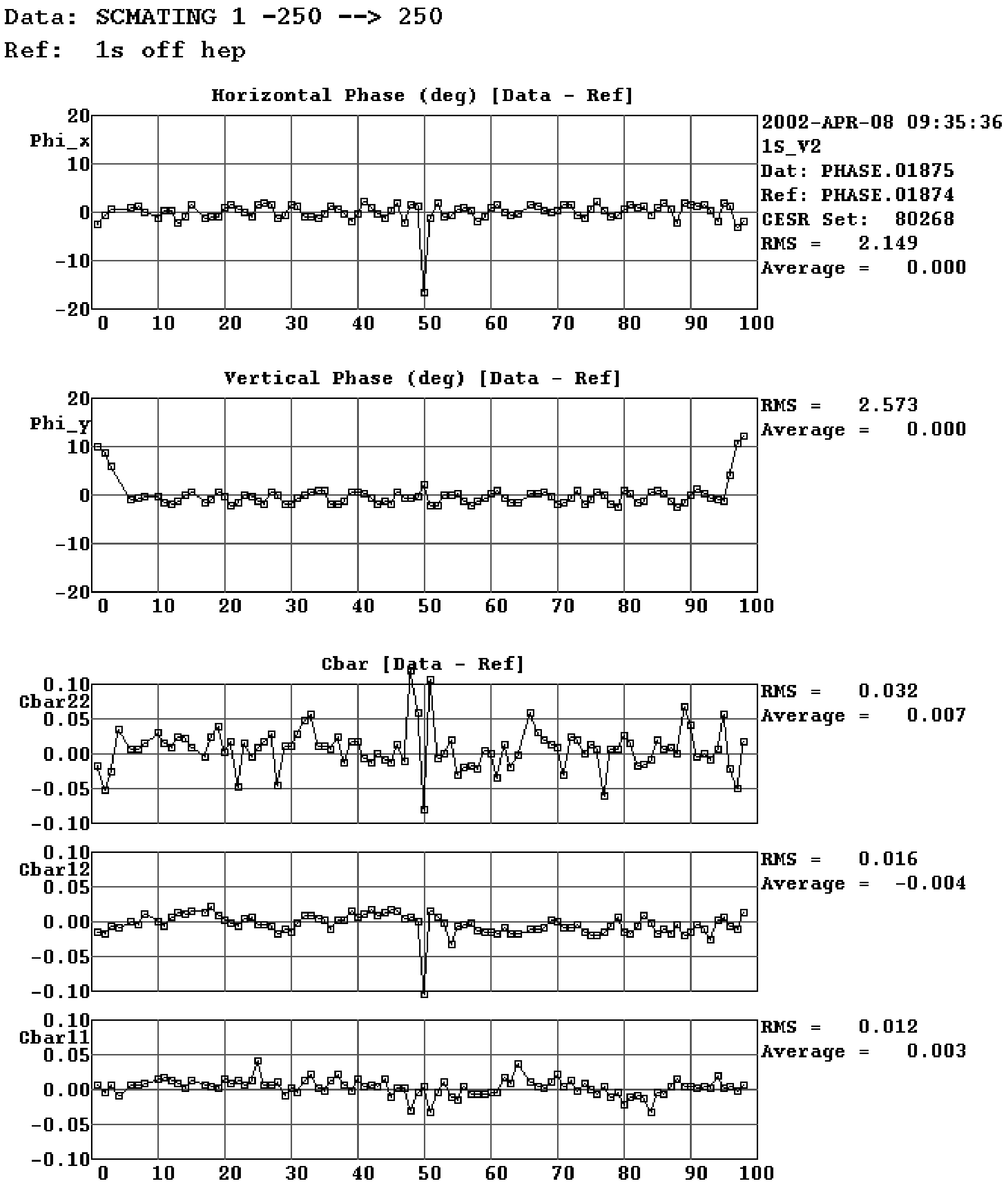
1s-off HEP conditions on 1s with single bunch e^+ of 7 mA

```
***********************************************
 Lattice = 1S_V2     type = STANDARD
 energy = 1S_OFF    sen1 = 1790.50    sen2 = 4931.60    dipole status = 1
 Set    BIGGRP  POSCSR  ELCSR   ELTOLUM POSTOP  COLLIDE SCIR    HEP     CESR_RF
 Num     79326   80264   80263   78577   78513   79734   78476   80268   79673
 Orb         0       0       0       0       0       0       0       0       0
***********************************************
 POSLIN   POSSYN     ELLIN    ELSYN
  80295    80296     79944    79945
```

Data: 1s off hep

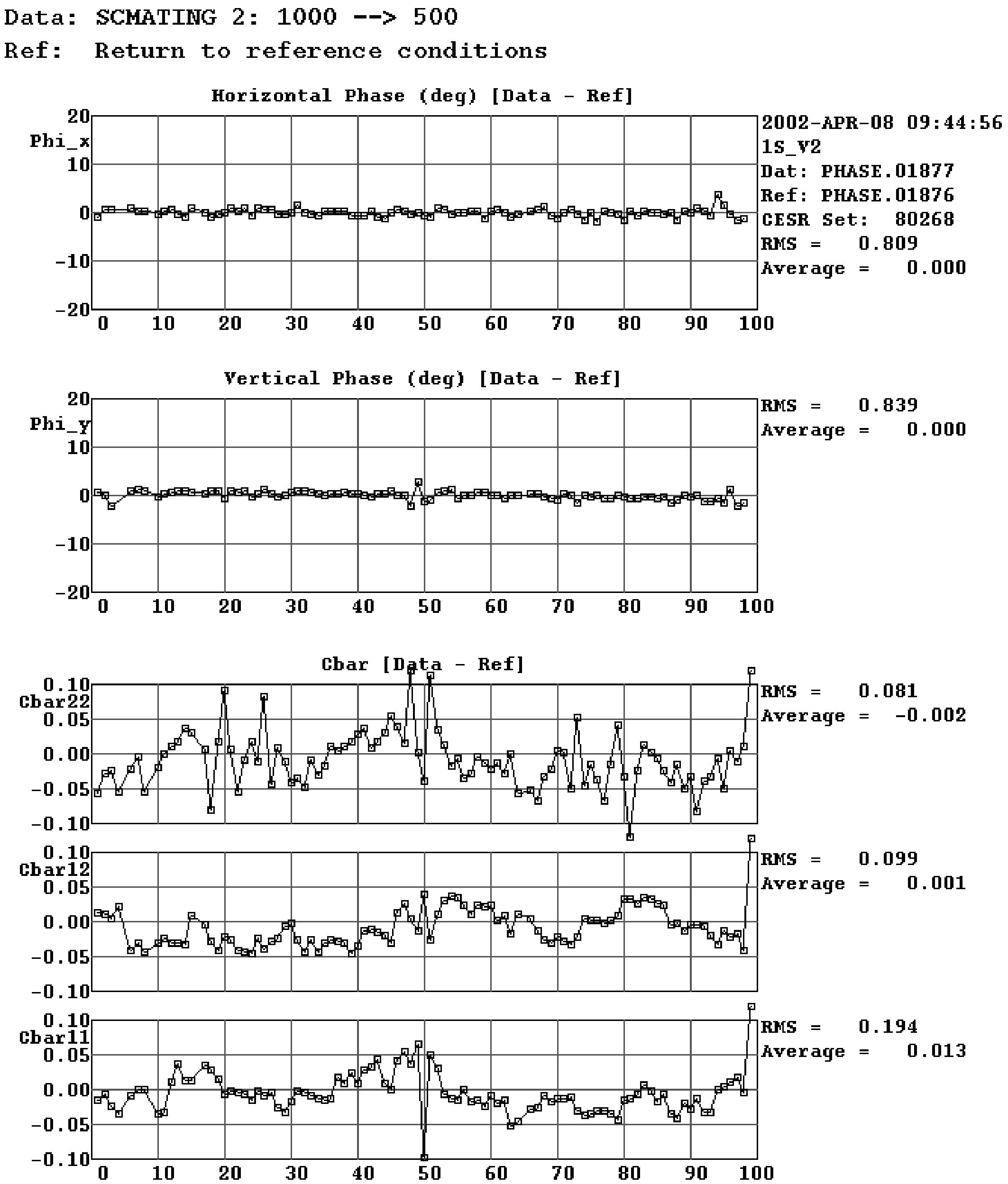


SCMATING 1: $-250 \Rightarrow +250$ cu



SCMATING 1 again works as expected

SCMATING 2: 1000 $\Rightarrow$ 500 cu



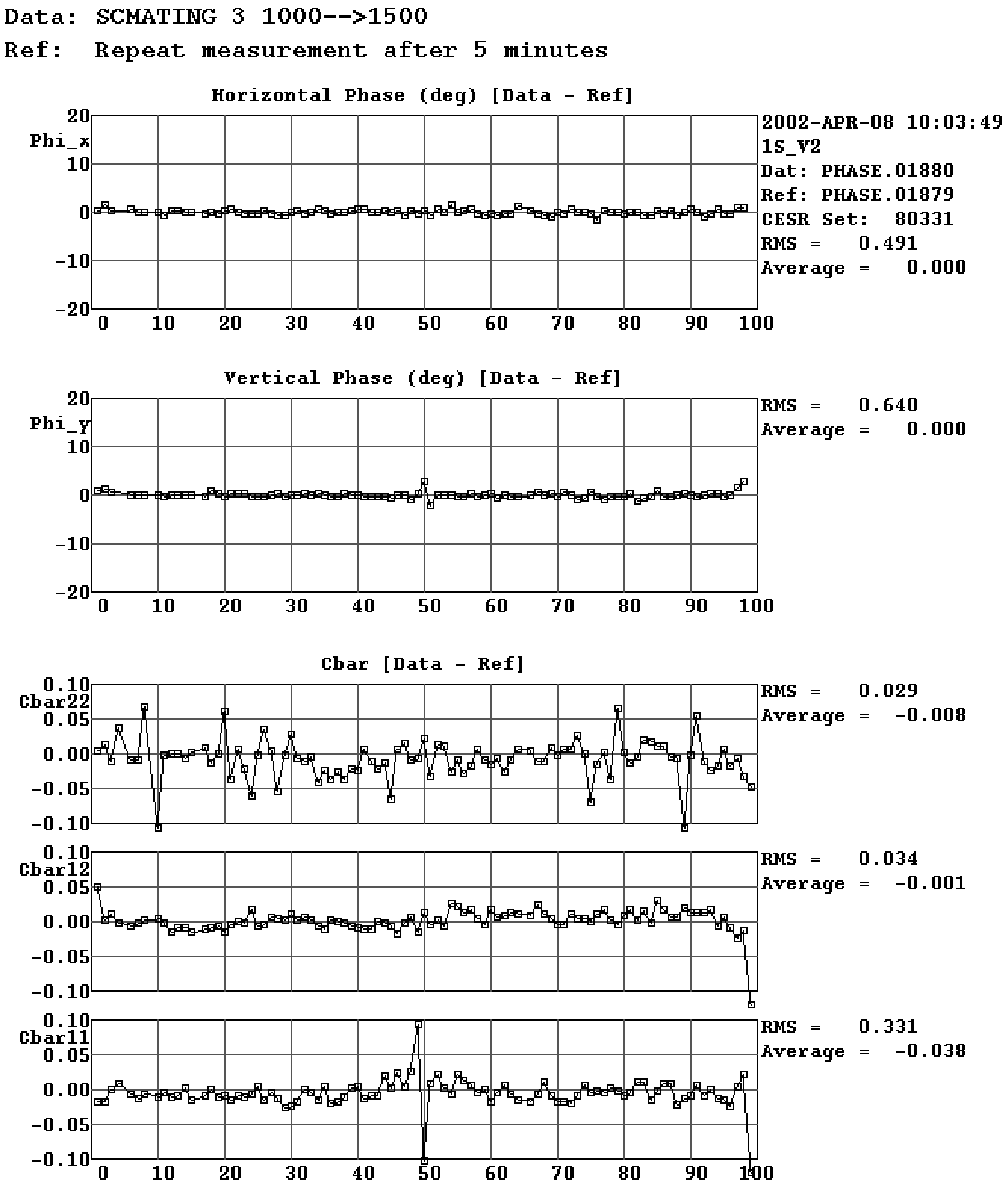
Some effect on coupling outside IR

500 cu probably overkill, see JTH elog entries

SCMATING 3: 1000 $\Rightarrow$ 1500 cu

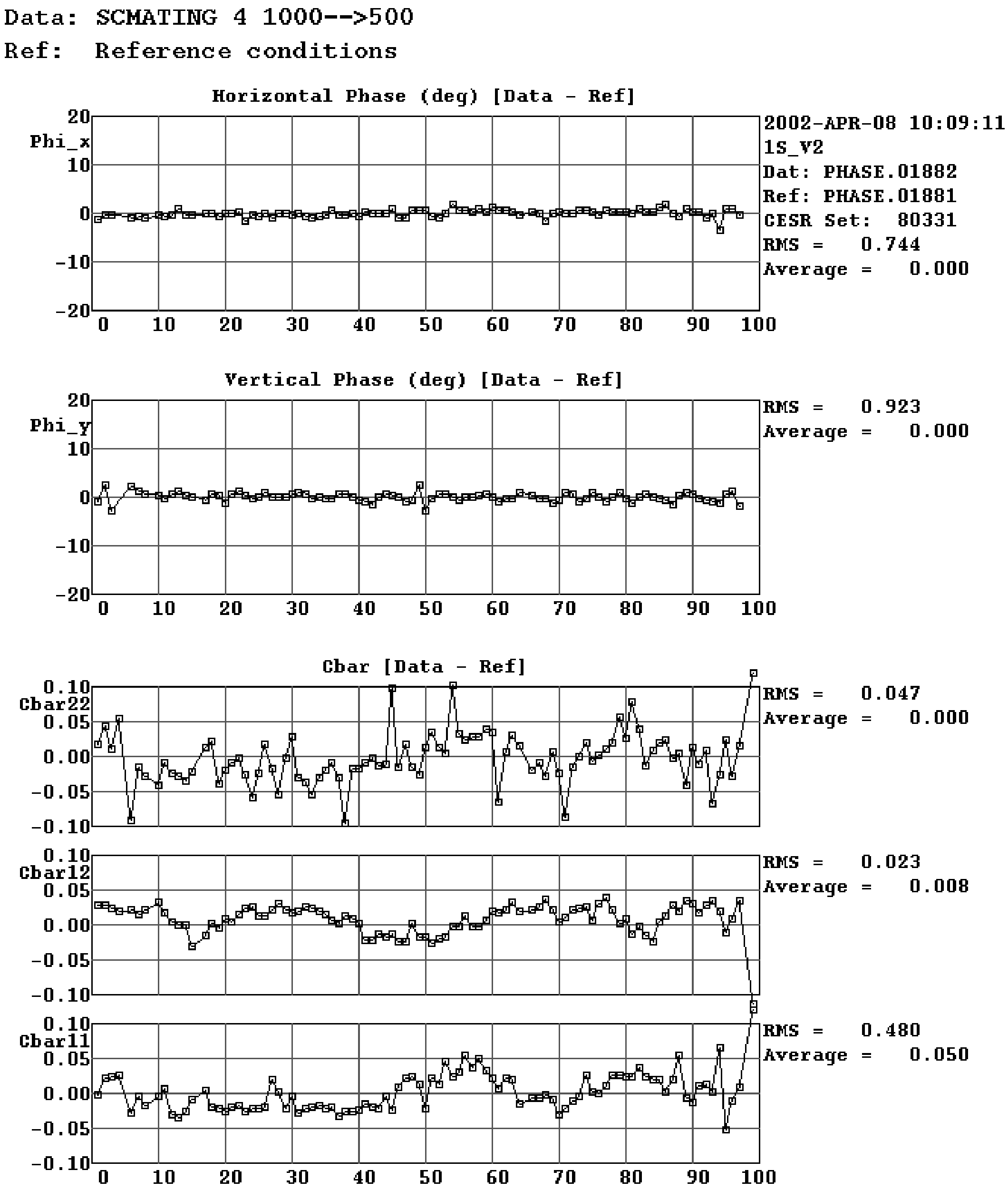
Lowering to 500 hit SKQ 3 upper limit

Vertical tune moved $\simeq$ 3 kHz on March 26, now stable



SCMATING 3 nicely closed, fixed since March 26

SCMATING 4: 1000 $\Rightarrow$ 500 cu

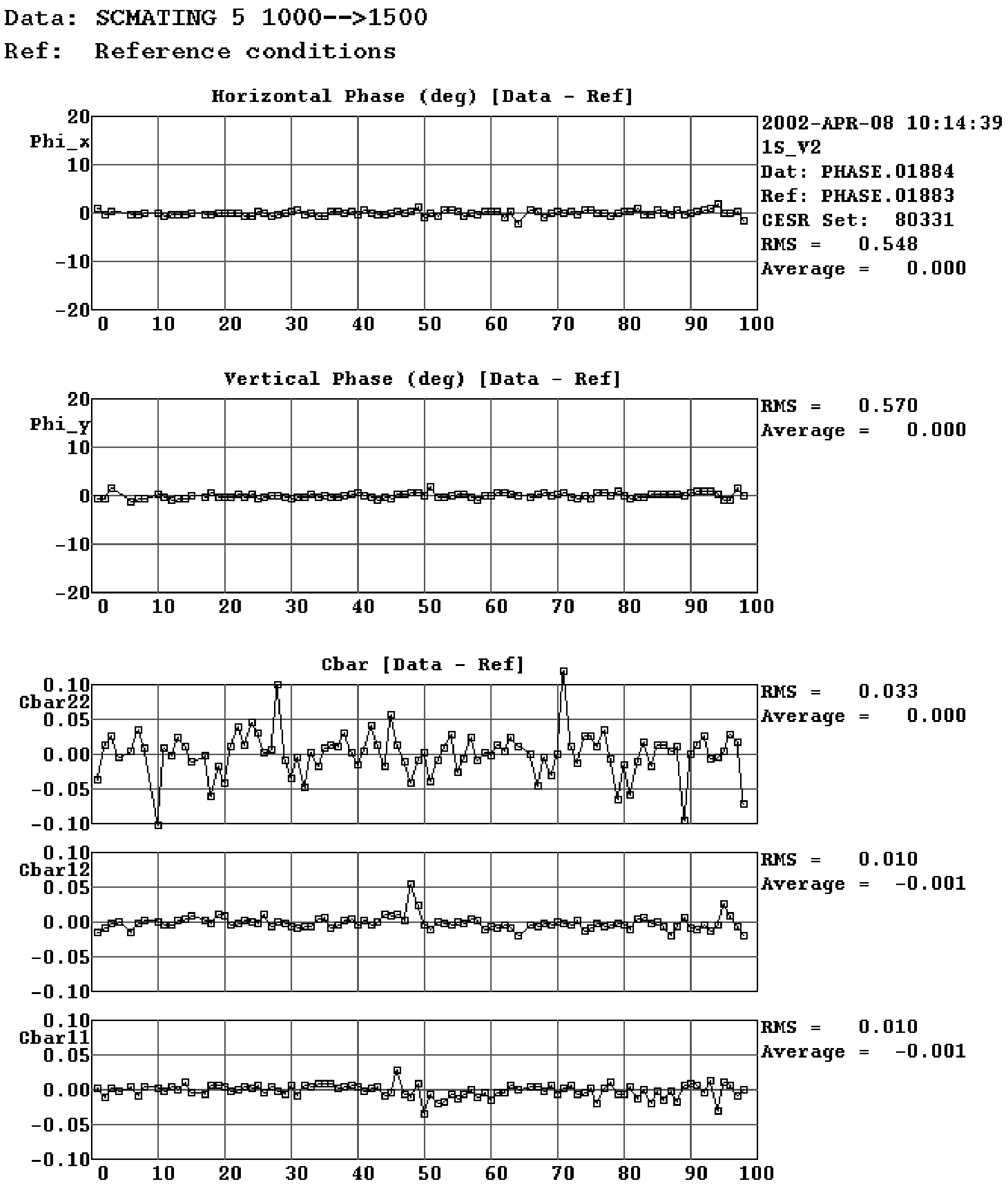


As for SCMATING 2, some effect on coupling outside IR

500 cu probably overkill

SCMATING 5: 1000 ⇒ 1500 cu

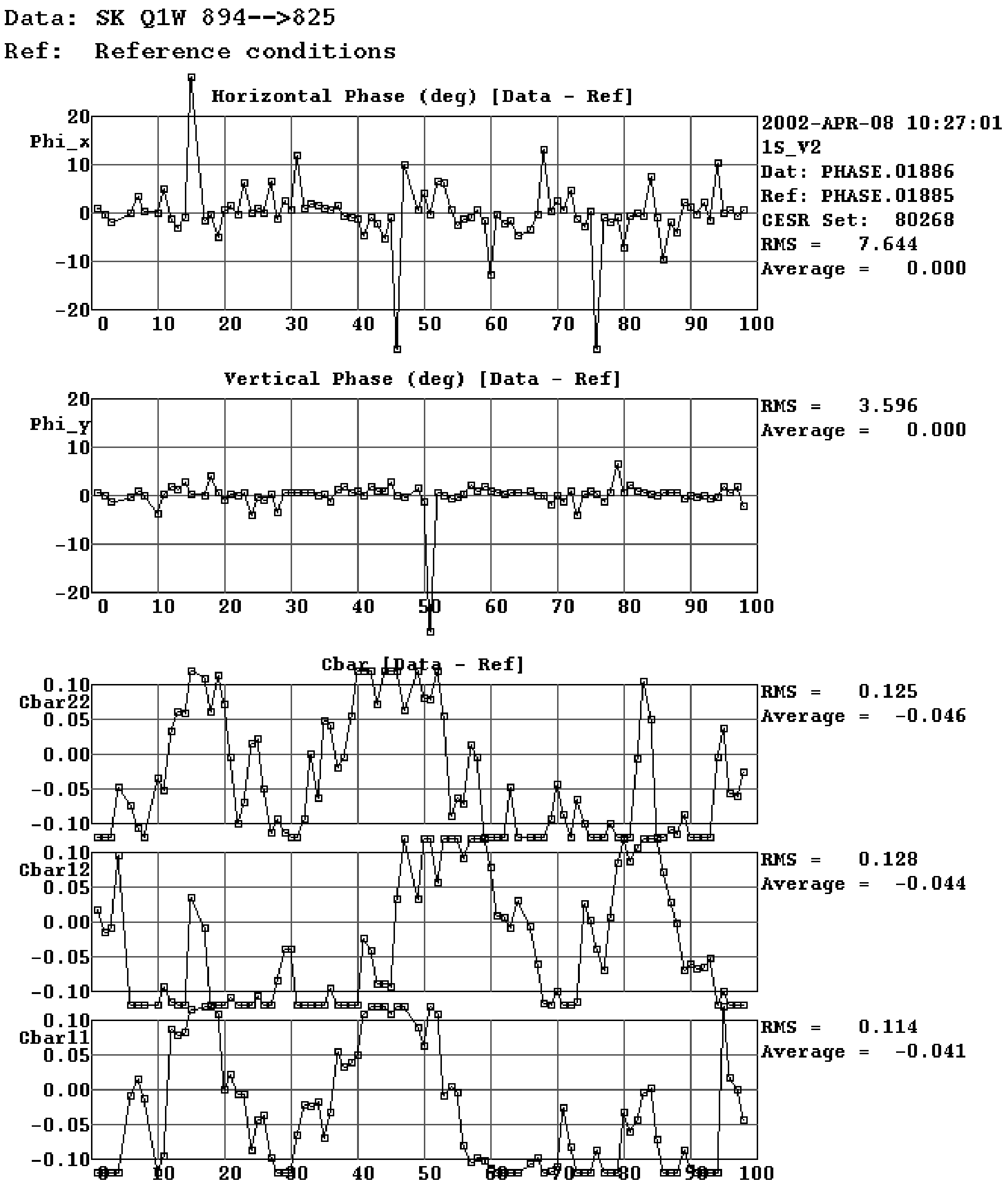
As for SCMATING 3, lowering to 500 hit SKQ 3 upper limit



SCMATING 5 works as expected

SCMATING 4 Revisited

Move SKQ 1W *alone* to its SCMATING 4 value



Compensation working as expected

500 cu probably too much for perfect compensation