Date: March 29, 1996
To: EISCAT Data Representatives
From: Peter Collis
Subject: Common programme results tapes

Data from the following experiments, have now been analysed and a tapes containing results in the standard format will shorttly be distributed. Plots of system temperature and transmitter peak power during these experiments are enclosed.

(1996)

CP -3 - G	22 Jan (0900 UT)	to	24 Jan (0810 UT)
CP -1 - K	13 Feb (1000 UT)	to	14 Feb (1600 UT)
CP -2 - E	19 Mar (1000 UT)	to	22 Mar (1600 UT)

NOTES

1. CP-3-G, 22-24 January 1996.

This operation began with vary many HRP trips and so was run at slightly reduced power for the first 10 hours or so. An unusual problem resulted in loss of data between 1604 and 1755 UT on 22 January. The whole system seemed to be functioning nominally, with no alarm conditions, but there was actually no RF output. This was ascribed to an IPA failure and corrected rebooting the PC controlling the UHF transmitter.

The operation ended abruptly before the scheduled time following an HRP at 0810 UT on 24 January. No signals were received in Tromsø following this, although the remote sites continued to see signal. The cause was a leak of coolant water in the hub room. This would require several hours to fix so the operation was terminated. A very slight, steady increase in system temperature had been observed over the preceding 24 hours (about 10 K), which was doubtless linked to the ensuing problem.

A calibration factor of 1.31 (the same as used for the last CP-3 in November 1995) resulted in very good agreement of long pulse densities with those derived from dynasonde foF2 values. The enclosed plot shows a comparison for 22 January. The EISCAT results are from the 3 centre positions in the scan. The position just south of vertical is marked “S posn” - this often has slightly higher values due to the latitudinal gradient of density in the middle of the day.

2. CP-1-K, 13-14 February, 1996.

No reported problems.

A calibration factor of 1.26 was used in the analysis. This produced excellent agreement with densities derived from the dynasonde. The enclosed plot shows the comparison for 13 February. Note that there are several dynasonde (X) values very close to the full line linking the EISCAT values that they are not easily visible.

3. CP-2-E, 19-22 March, 1996.

This 78-h run was almost without incident. The transmitter performed very well, with just a few HRP trips and a couple of crowbars. The Tromsø system temperature showed four steps up and down, by about 10 K, during the operation, along with a slow increase by about 10 K during the last 8 hours of the experiment. No obvious cause for these steps could be found. As all sites were otherwise operating normally, it was decided not to stop the experiment for investigations during the scheduled operation.

The heater was operated at 4.04 MHz between 1250 and 1308 UT on 19 March. Spikes in the power profiles at about 210 km resulted from this.

Sodankylä had a correlator problem between 0340 and 0700 UT on 21 March, resulting in loss of data. Kiruna suffered a radar controller fault between 0409 and 0730 UT on 22 March, resulting in corruption of the data.