Date: January 27, 1994
To: EISCAT Data Representatives
From: Peter Collis
Subject: Common programme results tapes

Data from the following experiments have now been analysed and a tape containing results in the standard format is being mailed to you. Plots of system temperature and transmitter peak power during these experiments are enclosed.

(1993)

CP -2 - E	15 - 16 Jun	(0900 - 2200 UT)
CP -6 - B	15 - 16 Jun	(0810 - 2200 UT)
CP -1 - K	20 - 21 Jul	(2235 - 2200 UT)
CP -6 - B	20 - 21 Jul	(2235 - 2200 UT)
CP -6 - B	14 - 16 Sep	(0910 - 2200 UT)
CP -4 - B	28 - 30 Sep	(0928 - 1100 UT)
CP -1 - K	18 - 19 Oct	(1340 - 2300 UT)
CP -6 - B	18 - 19 Oct	(1340 - 2300 UT)

Notes

1. CP-2-E, 15-16 June, 1993.

A few minutes' data taking were lost on 16 June at 1023 UT following a crowbar and at 1242, 1350 and 1409 UT due to computer problems. The Kiruna system was being tested during the first 30 minutes of operation and began recording data at 0930 UT on 15 June.

2. CP-6-B, 15-16 June, 1993.

No reported problems except for the brief gaps noted in (1) abve.

3. CP-1-K, 20-21 July, 1993.

This experiment was scheduled to start at 10 UT but was delayed by some 12 hours while the transmitter was being repaired. Sodankylä was not able to join in until 0536 UT on 21 July due to opretional difficulties.

The alternating code data from this experiment were corrupt throughout. They were, however, processed in the standard way and are included on the result tape; most of the gates are flagged with a fit code of 1, i.e. fit failed, but some indicate convergence of the fit, ie. a fit code of 0, but these are spurious and none of the alternating code results from this operation should be used for scientific purposes. The long pulse and power profile results are reliable.

4. CP-6-B, 20-21 July, 1993.

The start of this experiment was delayed in the same way as the concurrent CP-1 operetion. A data gap exists between 1015 and 1511 UT on 21 July due to a data recording problem.

5. CP-6-B, 14-16 September, 1993.

Notable gaps during this operation were 0947-1038 UT (14 Sept) due to work on the transmitter, 2150-2240 UT (14 Sept) due to a scheduled break in the power supply, 0750-1110 UT (15 Sept) during adjustments to the antenna, 1512-1535 UT (15 Sept) following a crowbar and 1122-1140 UT (16 Sept) due to computer problems.

6. CP-4-B, 28-30 September, 1993.

No reported problems.

7. CP-1-K, 18-19 October, 1993.

Minor data gaps occurred at 1930 UT (18 Oct), and 0042 UT and 0635 UT (19 Oct) following transmitter problems. Data were lost between 0716 and 0942 UT on 19 October due to a data recording failure.

The imaginary parts of the alternating code ACFs were distorted (large, positive values) in several gates around the E-region peak when electron densities were large. This occurred mainly during the periods 0100-0230 and 1900-2200 UT on 19 October and caused non-convergence of the data analysis (flagged as fit failed on the result tape). The effect was only observed above a given backscattered power level and was then very obvioous in the data-for lower electron densities where successful fits were made there seems to be no reason to doubt the reliability of the results. A second analysis was performed to be no reason to doubt the reliability of the results. A second analysis was performed to estimate the ionospheric parameters for the missing gates. This involved setting the imaginary parts of the alternating code ACFs to zero; the results from this second analysis KRECC file and the fact that tha velocities are identically zero, these results are differentiated from the first (standard) analysis in that they are 5-minute averages as opposed to the original 2-minute integrations.

8. CP-6-B, 18-19 October, 1993.

The data gaps noted in (7) above also apply to this operation, with the addendum that tha loss due to recording failure lasted from 0140 to 0942 UT on 19 October.