

Date: October 24, 1989
To : EISCAT data representatives
From : Peter Collis
Subject : Error in Tromso azimuth values in parameter block

Two calibrations of the Tromso antenna pointing were made this summer, on 8 July and 14 September (1989). Small changes in the antenna offset model were made on both occasions but these were not implemented immediately in EROS due to an oversight in the loading procedure. Hence the azimuth values in parameter block position 6, supposedly the 'true' direction after offset correction, are slightly in error. The magnitude of the offset varies with antenna position due to geometrical terms in the model. Elevations are correct to within 0.1 degree. The effects are as follows :

8 -31 July, corrected azimuth about 1.7 deg. Too small
31 July, all parts of EROS reloaded
31 July - 14 Sept, corrected azimuth reliable
14 Sept - 3 Oct, corrected azimuth about 2.4 deg. Too small
Oct 3 (0911 UT), UANTCI reloaded, corrected azimuth reliable after this

This particularly affects SP-FR and SP-UK experiments during July. One complete common program and the first part of another are affected; CP-3-F from 19-21 September, and the first 21 h 11 min of CD-4-A on 2-3 October. These data have been re-analysed from tape using the 'commanded' azimuth (parameter block position 5) as correct.

The effect on the location of the calculated scattering volume can be seen from the following example, for the most distant CP-3-F gate at lowest elevation :

	Correct azim	wrong azim.
Latitude	79.18	79.10
Longitude	23.77	25.87