

# C/NOFS, Coherent Electromagnetic Radio Tomography (CERTO)

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The Coherent Electromagnetic Radio Tomography (CERTO) is a tri-band (150 MHz, 400 MHz, 1067 MHz) radio beacon. CERTO is used for multi-frequency scintillation studies with ground receivers (measurement in the region between the C/NOFS satellite and the Earth). CERTO will also be used for tomographic reconstruction of electron density profiles (EDPs). The number and location of ground receivers is TBD.

Measurement Output	Units	Estimated Accuracy	Frequency (Cadence)	Estimated Range of Output Values
Slant Path TEC (Total Electron Content in a unit column)	TEC units ( $10^{16}$ ions / $\text{cm}^2$ )	TBD	TBD	0 - 1000
Electron Density Profiles (EDP)	$\text{cm}^{-3}$	TBD	one set per pass over group of receivers	TBD
Scintillation Indices & Spectra	S4: dimensionless & $\sigma\text{-}\phi$ : radians	TBD	TBD	TBD