



*Supplement of*

## **Data reduction of incoherent scatter plasma line parameters**

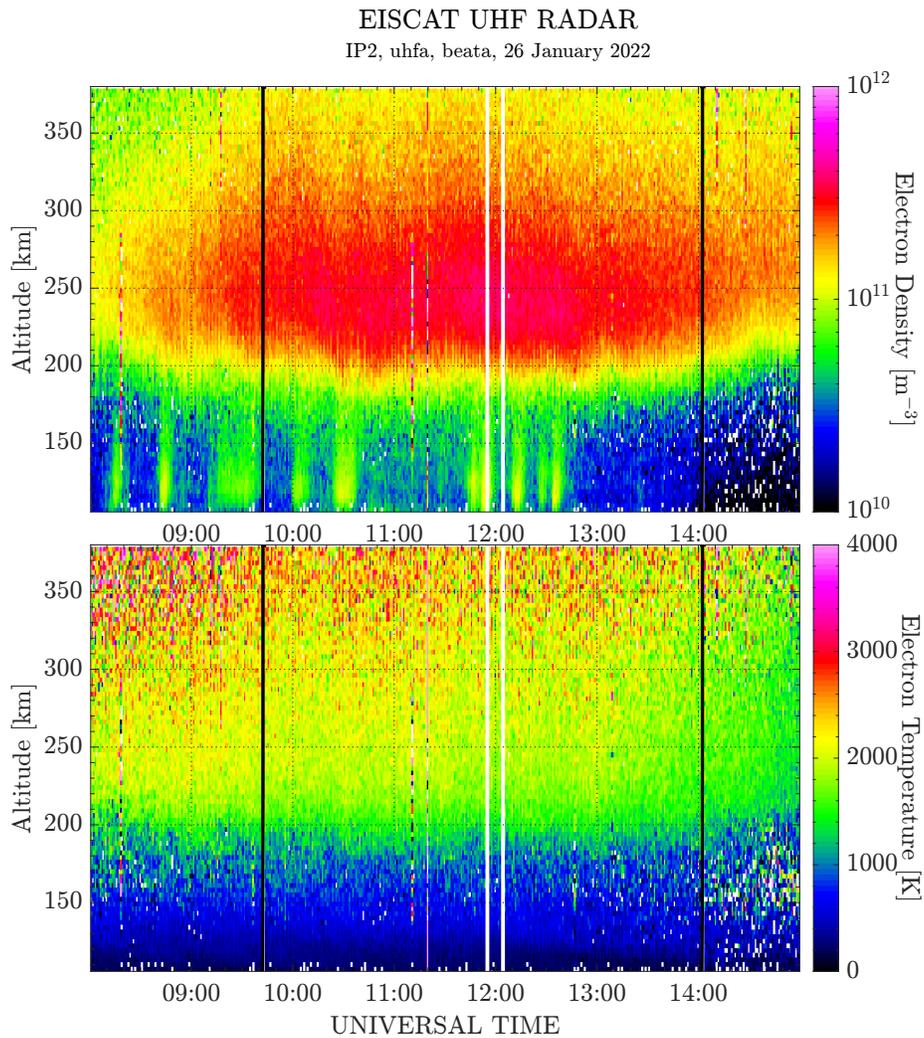
**Mini Gupta and Patrick Guio**

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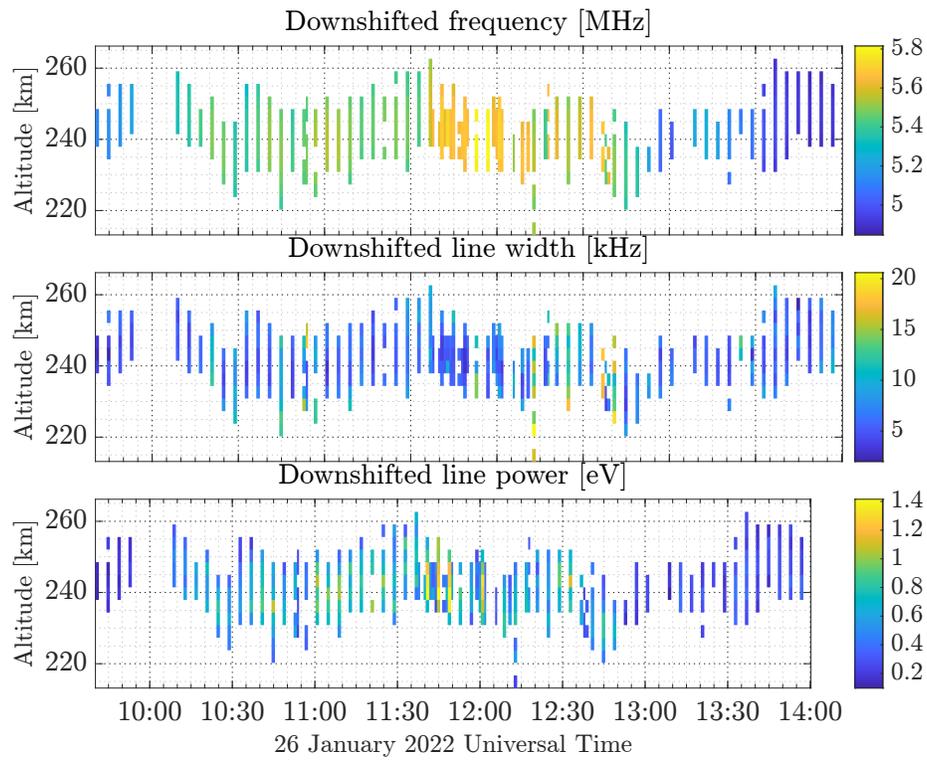
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## Supplementary Figures

Supplementary Figures S1–S12: Daily versions of Figures 6 and 7 for 26–31 January 2022. For each day, panel (a) shows the ion line estimates of electron density and temperature (cf. Fig. 6 in the main text), and panel (b) shows the plasma line parameters derived from the supervised detection methodology (cf. Fig. 7 in the main text). These plots demonstrate that the results and trends presented in the main manuscript are consistent across all six days.

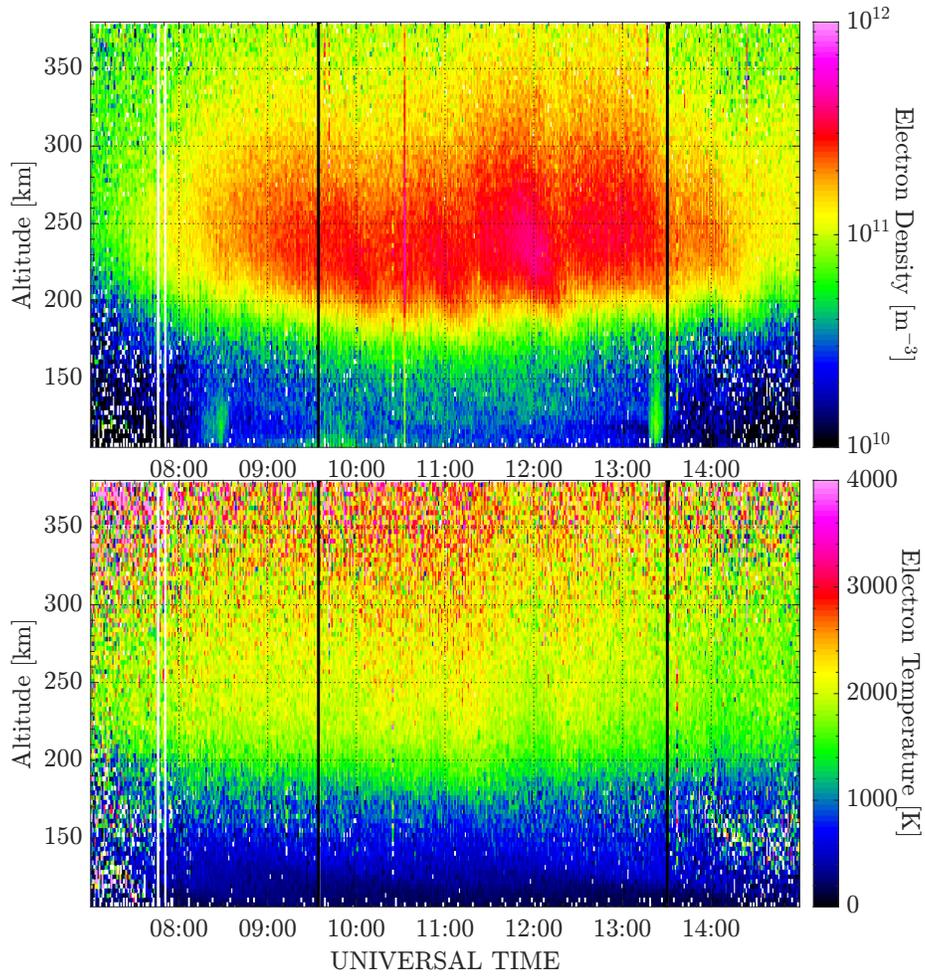


**Fig. S1:** Ion line estimates 26 Jan 2022.

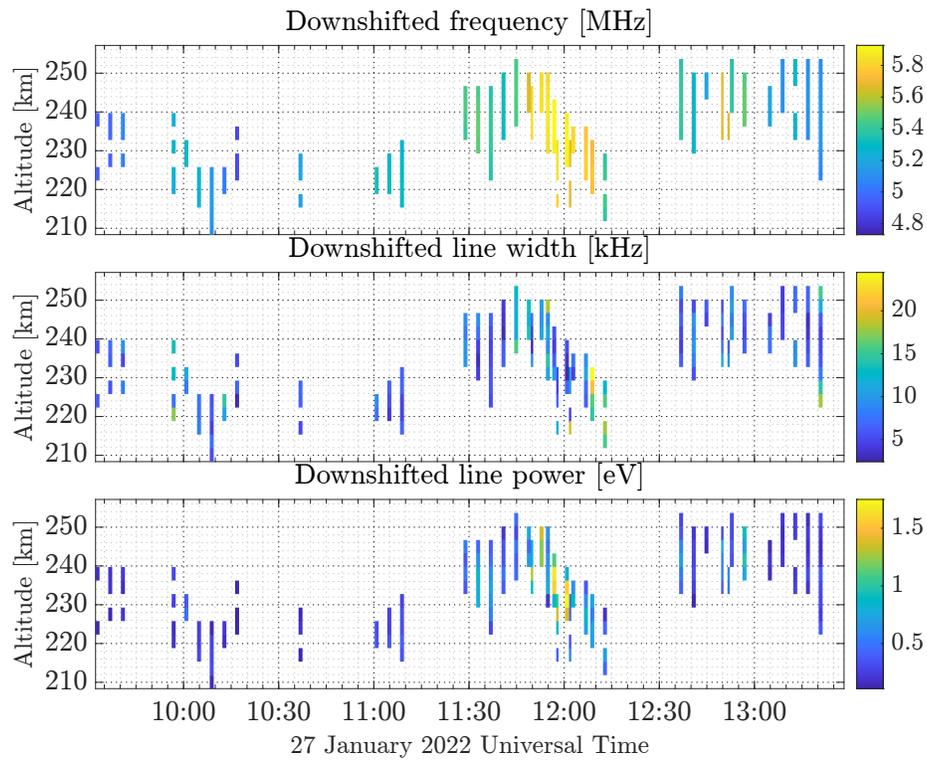


**Fig. S2:** Plasma line parameters 26 Jan 2022.

EISCAT UHF RADAR  
IP2, uhfa, beata, 27 January 2022

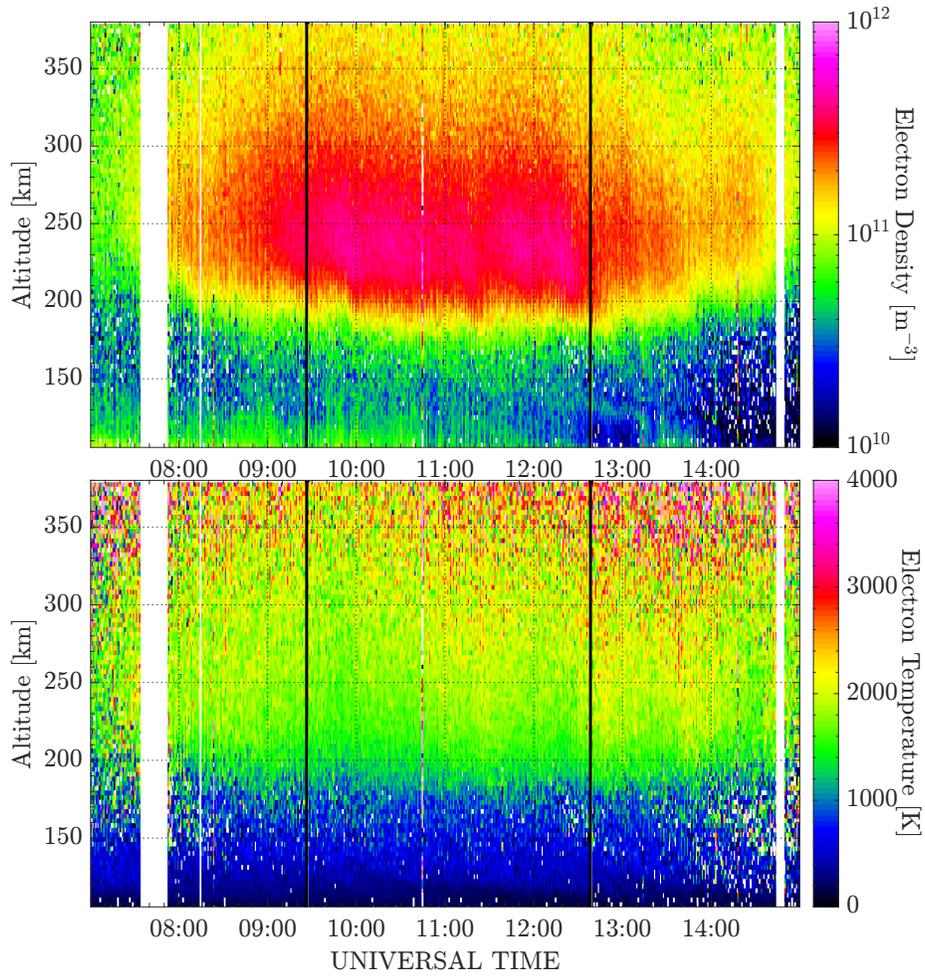


**Fig. S3:** Ion line estimates 27 Jan 2022.

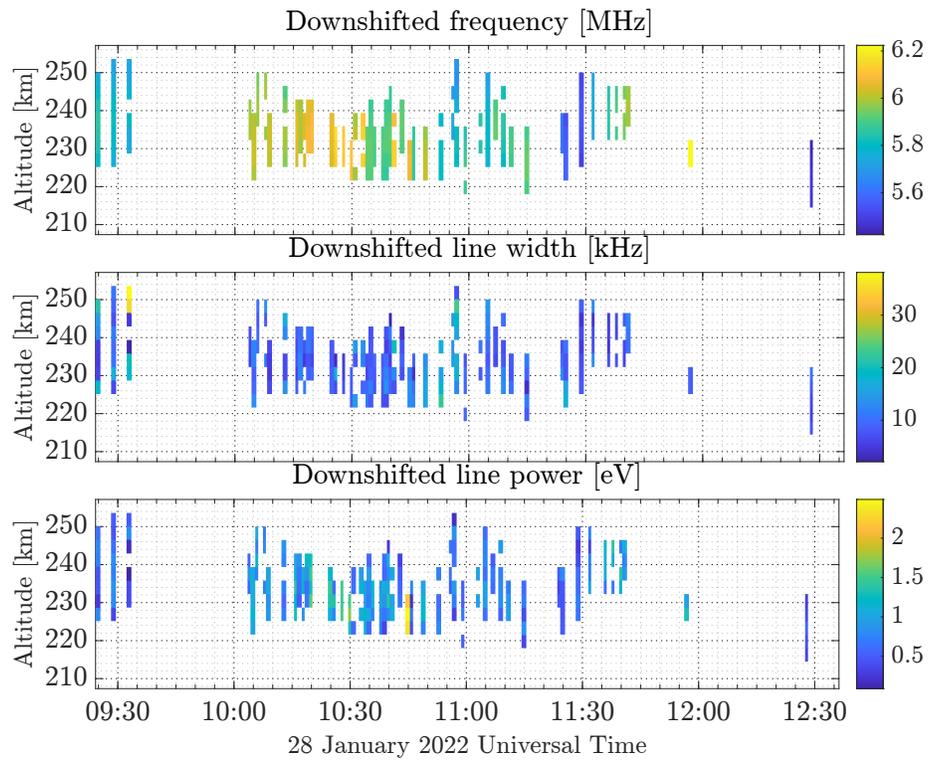


**Fig. S4:** Plasma line parameters 27 Jan 2022.

EISCAT UHF RADAR  
IP2, uhfa, beata, 28 January 2022

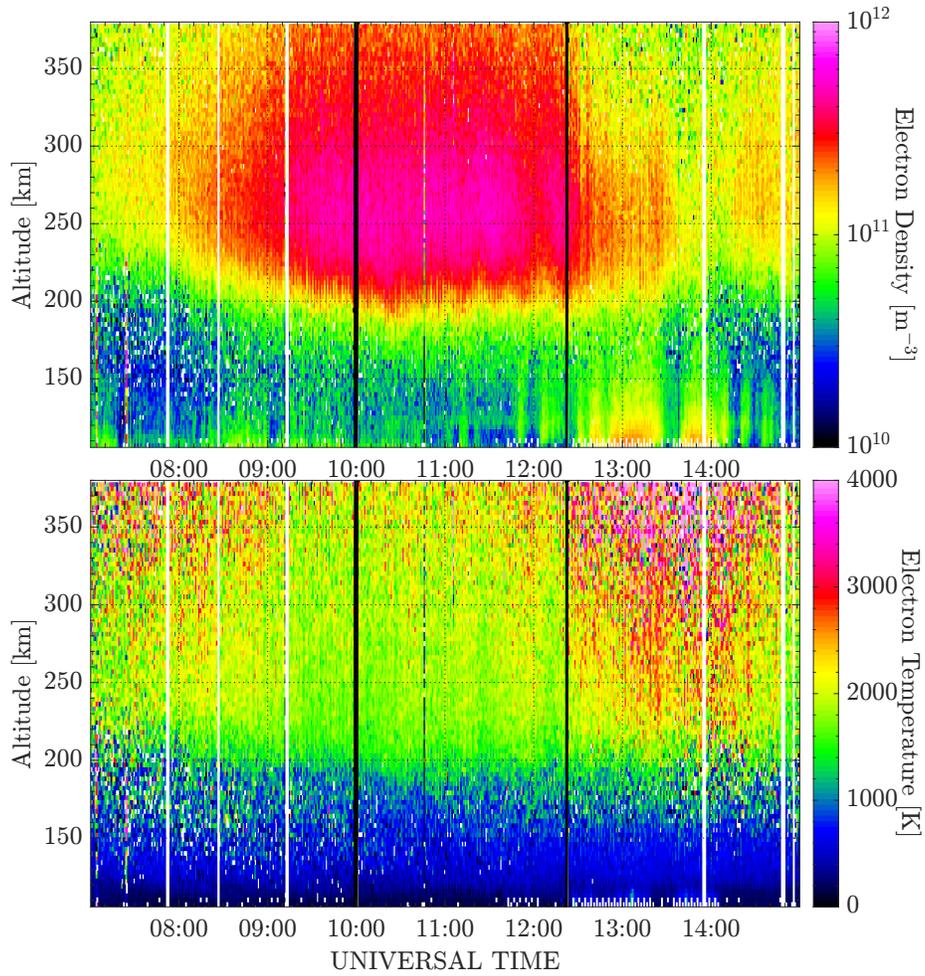


**Fig. S5:** Ion line estimates 28 Jan 2022.

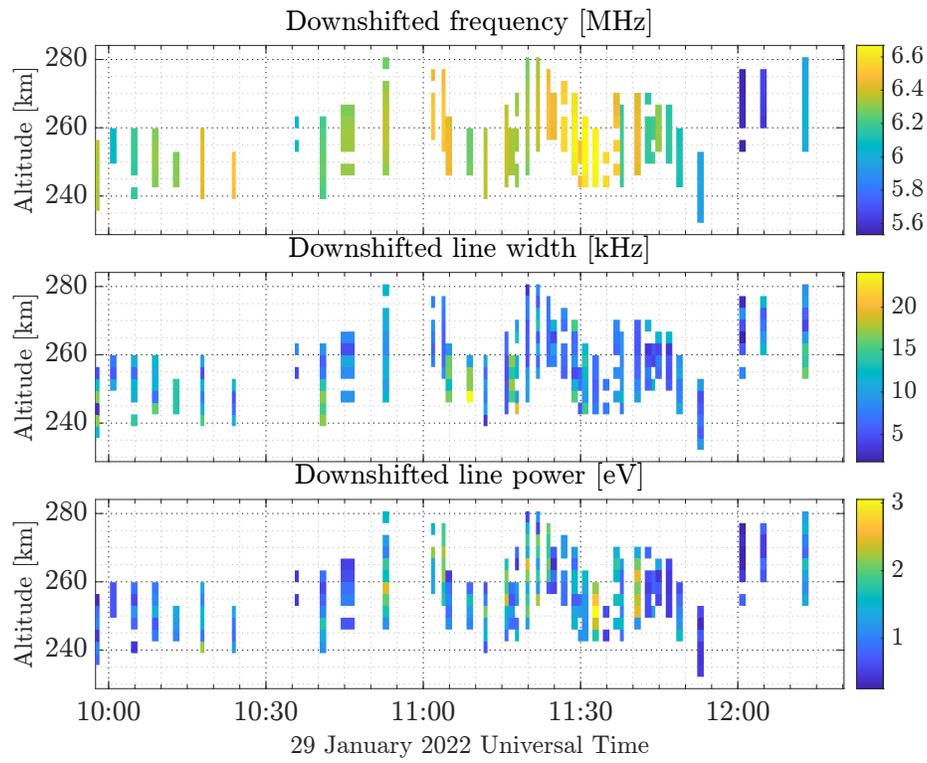


**Fig. S6:** Plasma line parameters 28 Jan 2022.

EISCAT UHF RADAR  
IP2, uhfa, beata, 29 January 2022

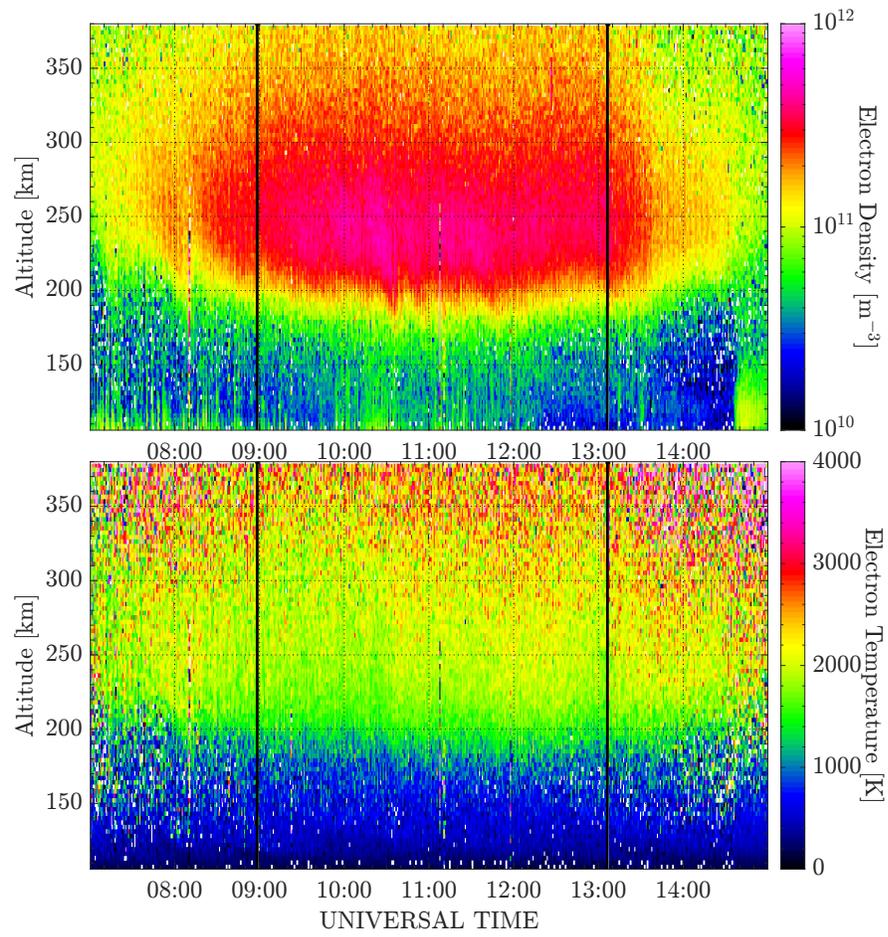


**Fig. S7:** Ion line estimates 29 Jan 2022.

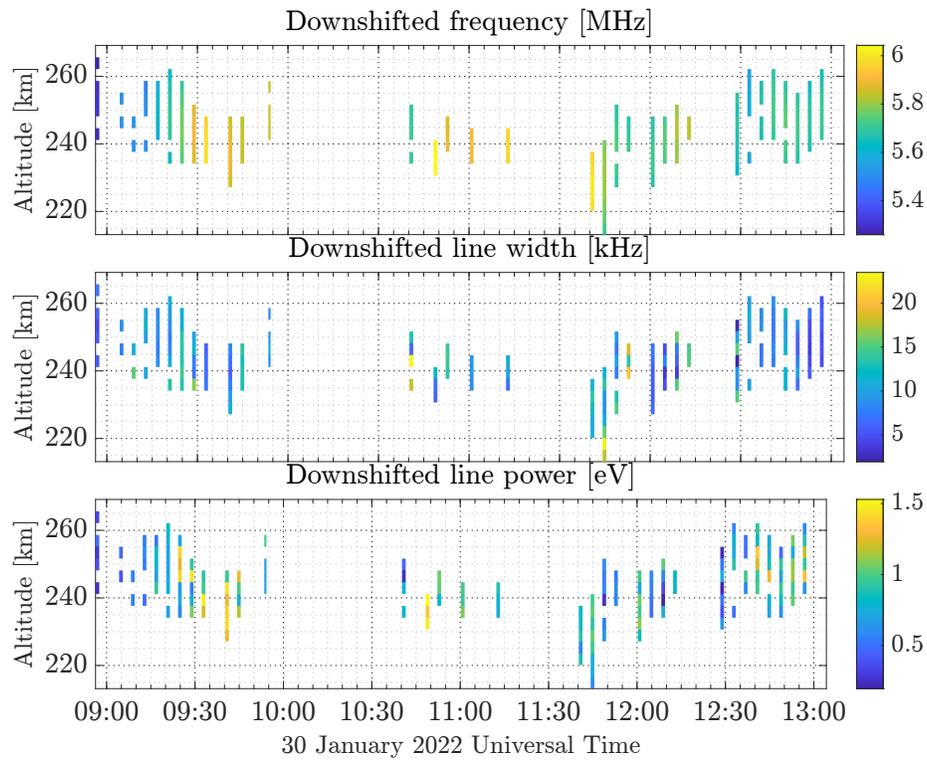


**Fig. S8:** Plasma line parameters 29 Jan 2022.

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IP2, uhfa, beata, 30 January 2022



**Fig. S9:** Ion line estimates 30 Jan 2022.



**Fig. S10:** Plasma line parameters 30 Jan 2022.

EISCAT UHF RADAR  
IP2, uhfa, beata, 31 January 2022

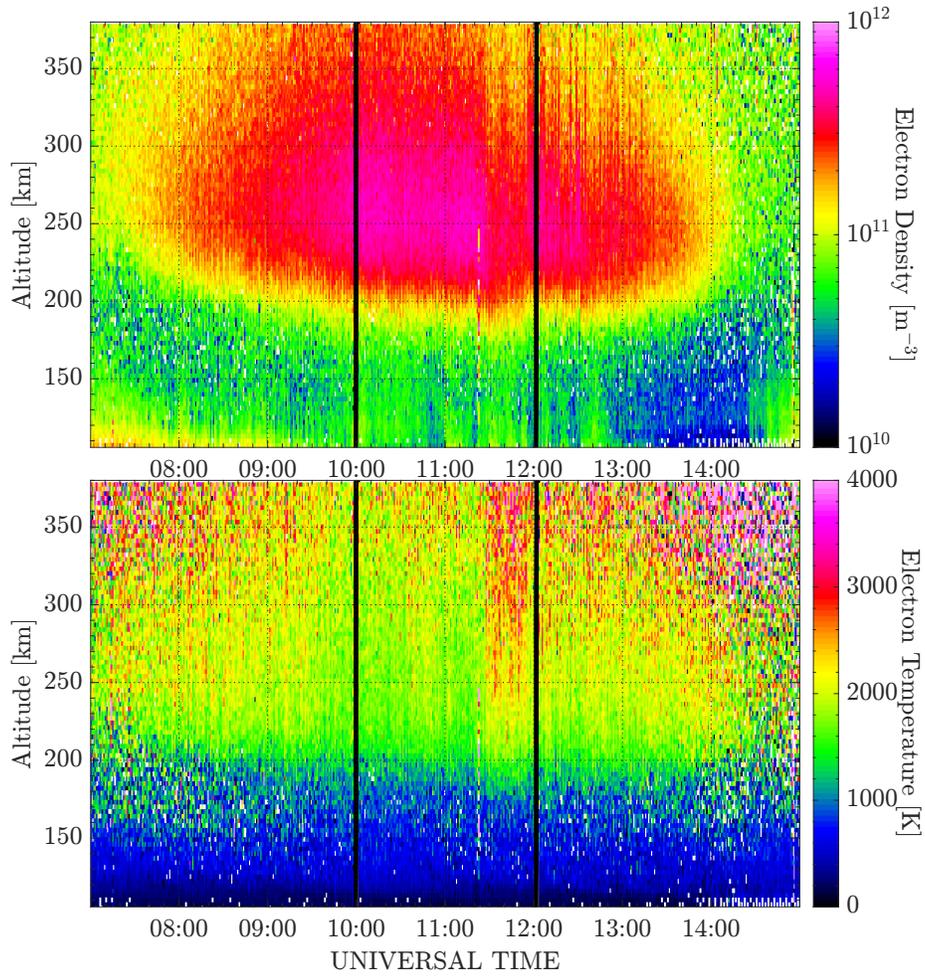
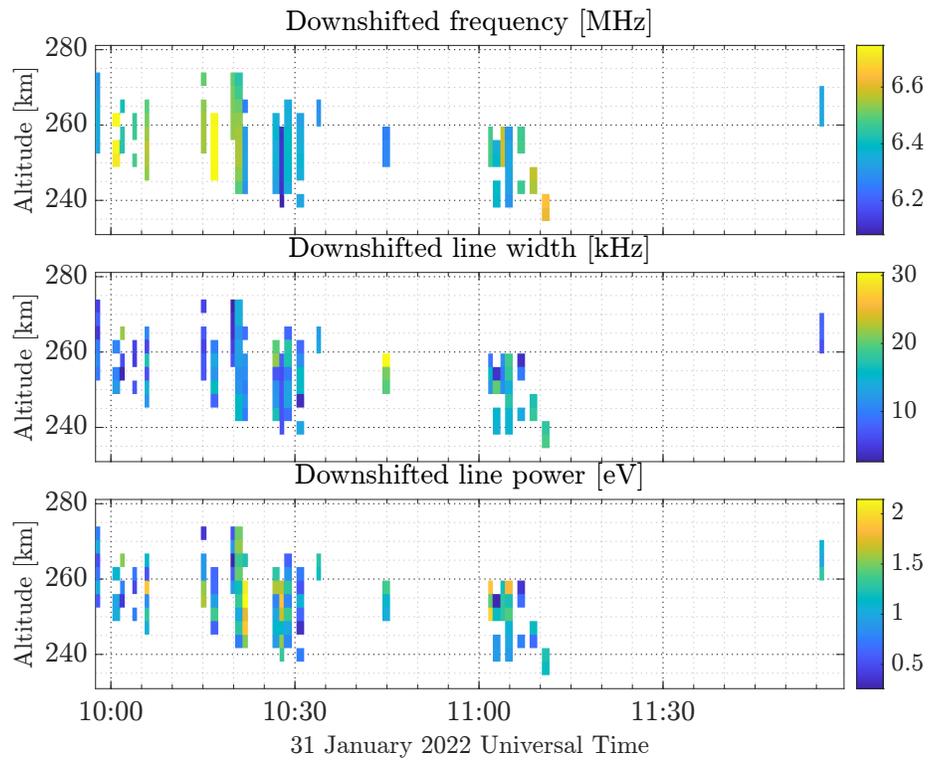


Fig. S11: Ion line estimates 31 Jan 2022.



**Fig. S12:** Plasma line parameters 31 Jan 2022.