



## EISCAT Space Debris 16 Apr–22 Apr 2007

Monitored altitude zones in IPY are Zone 1: 224–415 km, Zone 2: 780–973 km, Zone 3: 1339–1531 km, and Zone 4: 1897–2089 km.

Plots generated July 12, 2007 (Jm).

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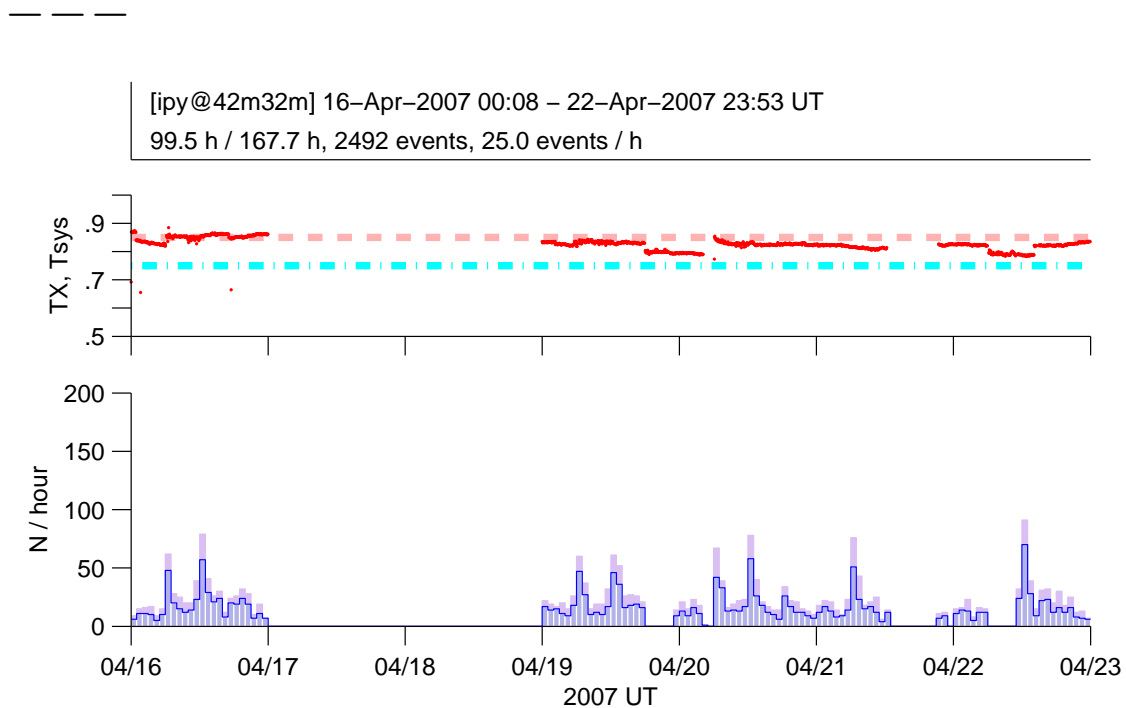
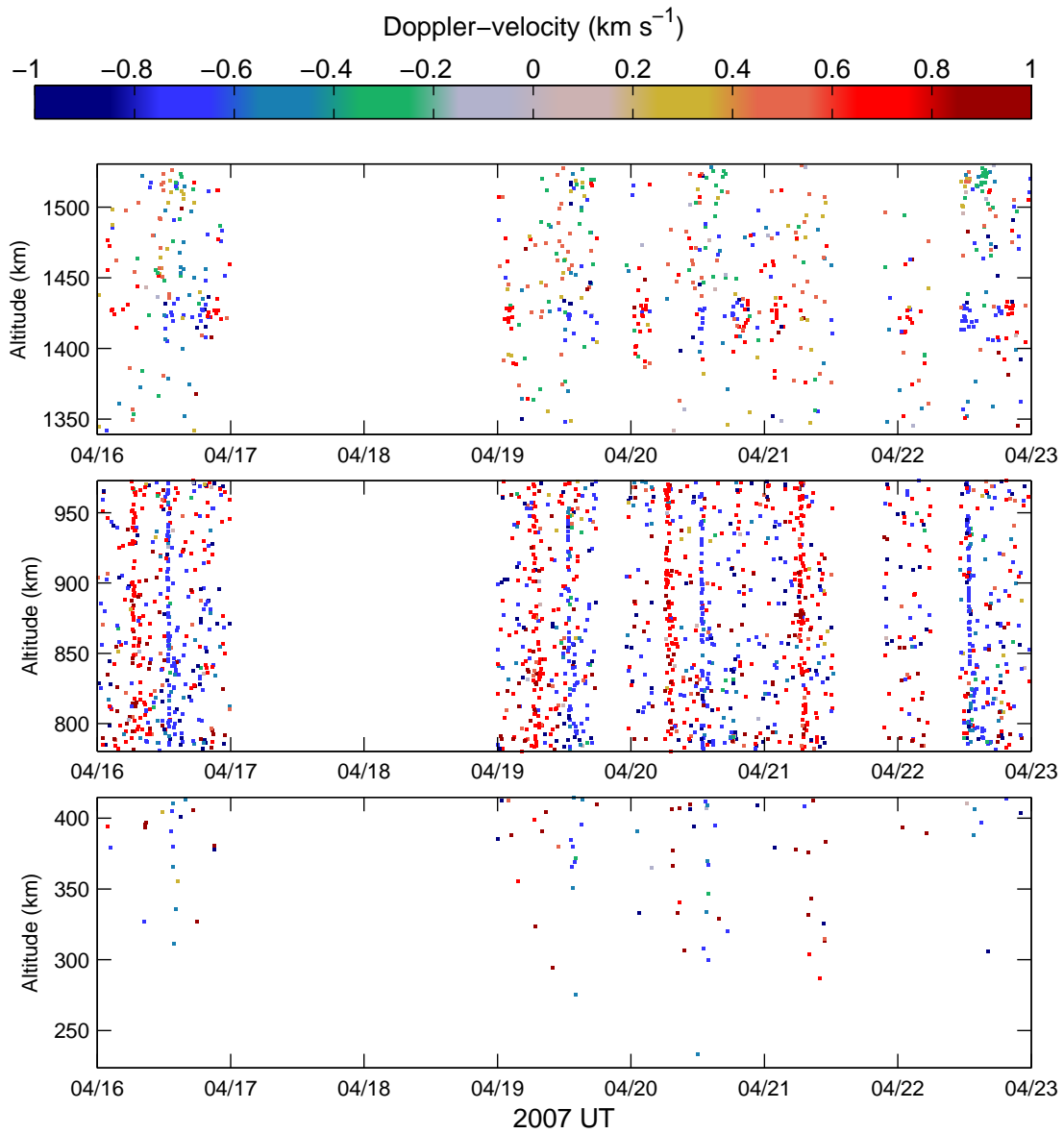
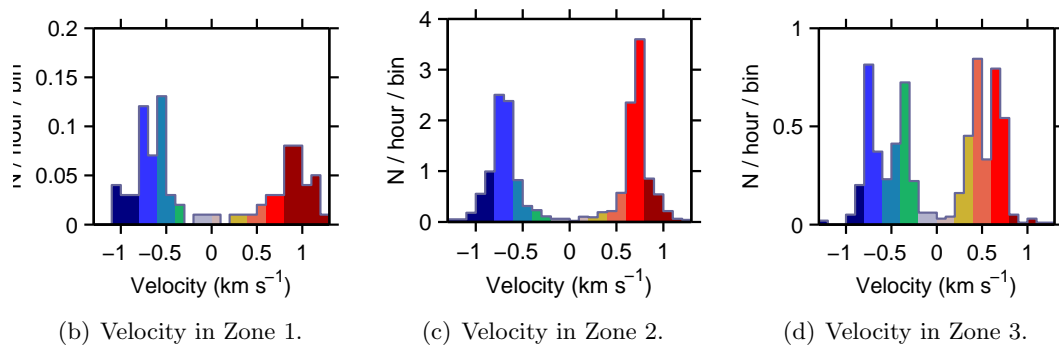


Figure 1: **Overall event rate.** Header panel, first line: first event – last event of the period. Second line: good measuring time; time interval between first and last event; total number of events; mean event count per good hour. Middle panel: peak transmitted power in MW (red); the constant transmitted power used in analysis (dashed red); the constant system temperature used in analysis in units of 100 K (dashed cyan). Bottom panel: number of events per hour, with “strong” events ( $ENR > 400$ ) in blue and “weak” events ( $100 < ENR < 400$ ) in red.



(a) Altitude and velocity v time through Zone 1(bottom) to Zone 3(top).

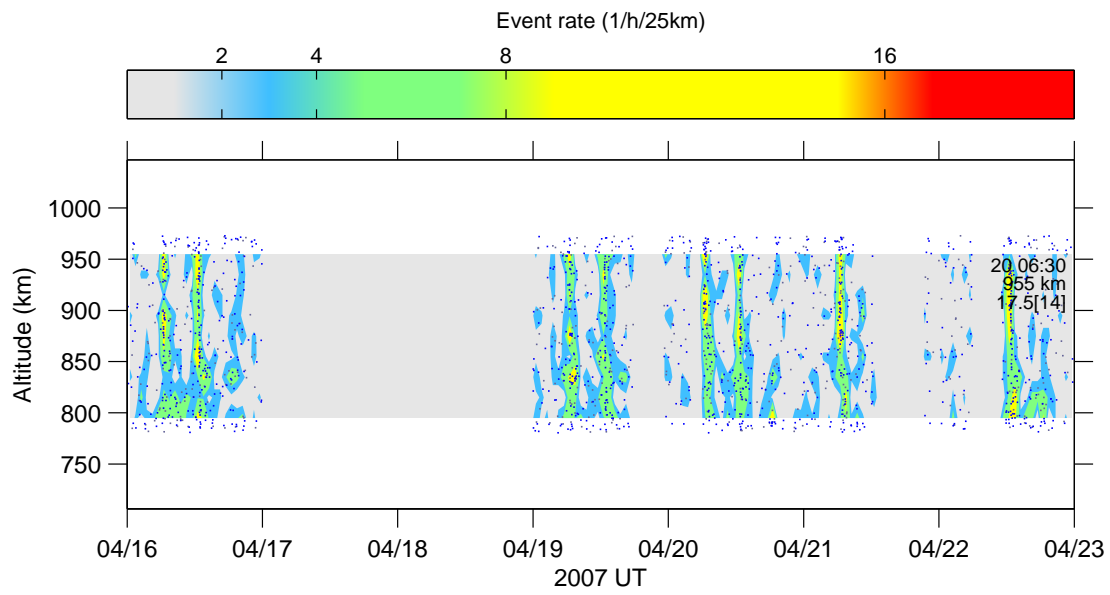


(b) Velocity in Zone 1.

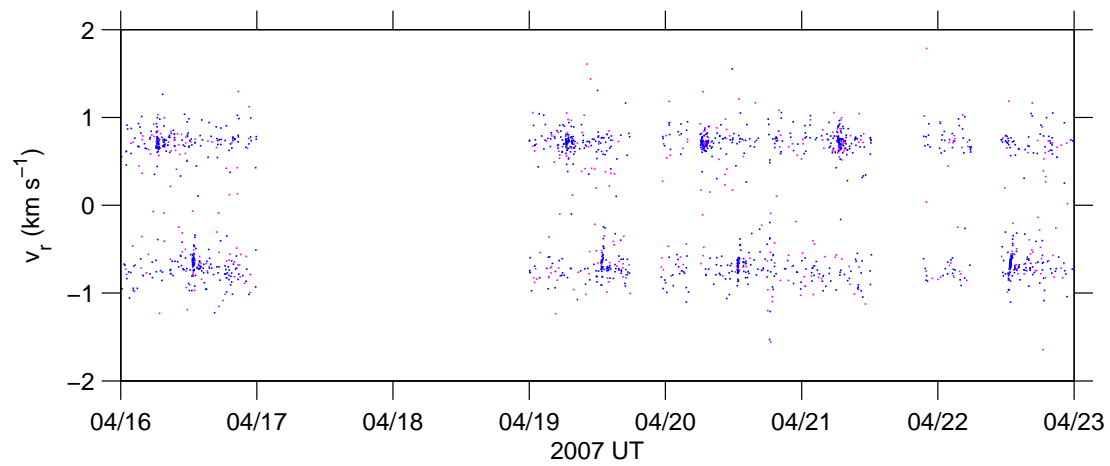
(c) Velocity in Zone 2.

(d) Velocity in Zone 3.

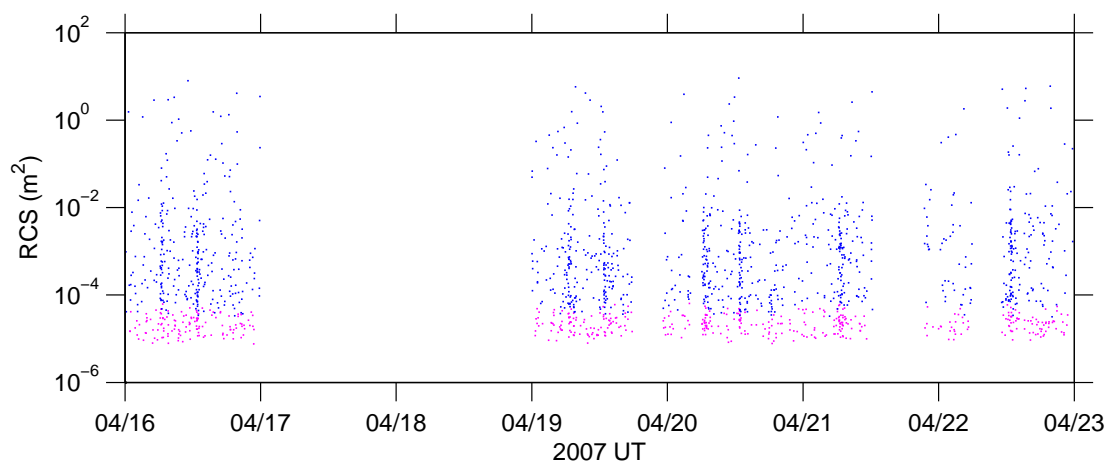
Figure 2: Altitude and Doppler-velocity.



(a) Altitude v time (dots), and events rate (contours).

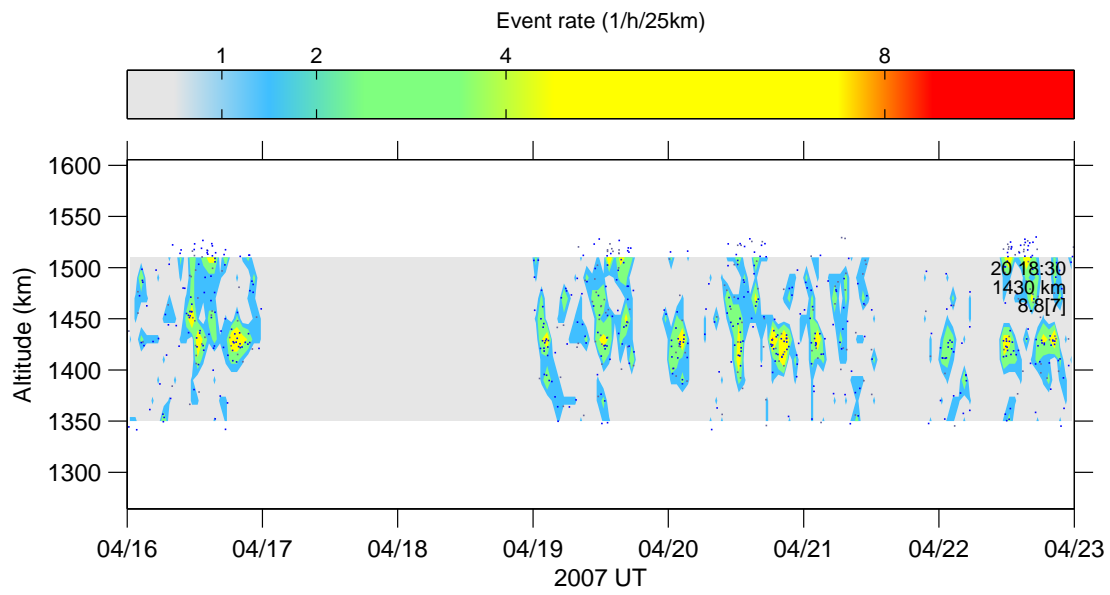


(b) Doppler-velocity v time.

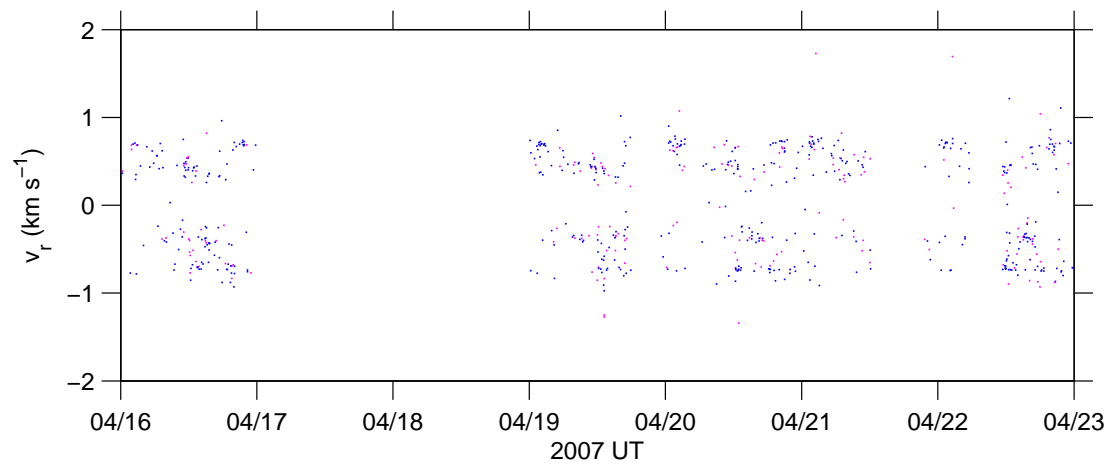


(c) Radar cross section v time.

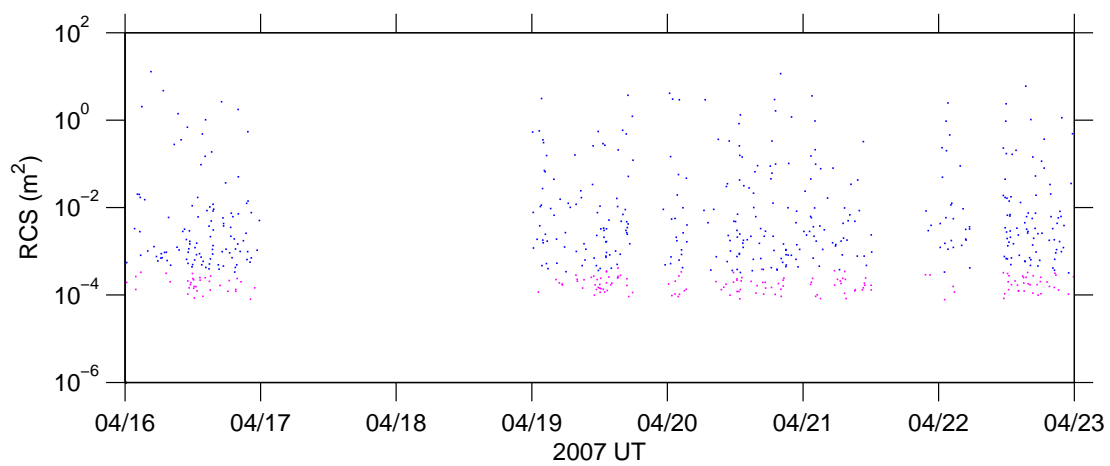
Figure 3: **Zone 2**. Altitude, Doppler-velocity, and radar cross section, v time.



(a) Altitude v time (dots), event rate (contours).



(b) Doppler-velocity v time.



(c) Radar cross section v time.

Figure 4: **Zone 3**. Altitude, Doppler-velocity, and radar cross section v time.

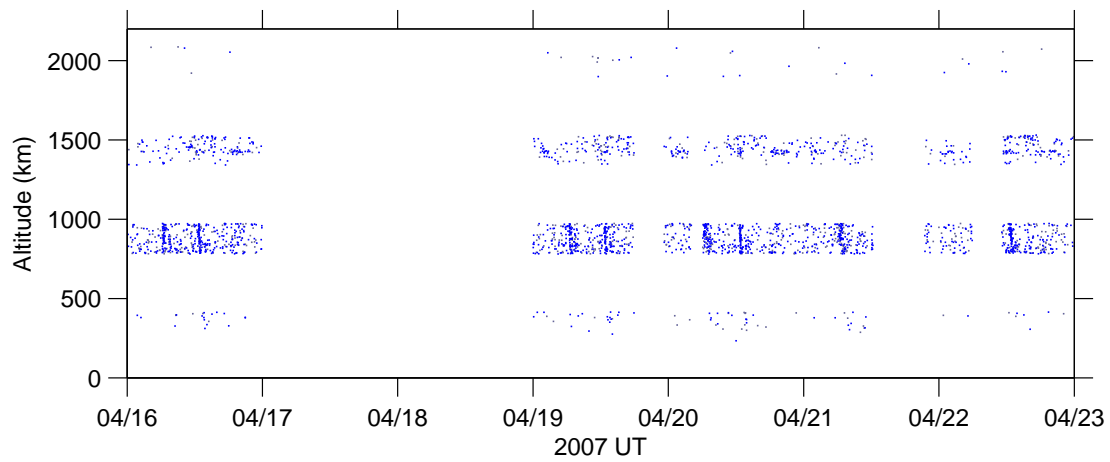


Figure 5: **Altitude v time**, 16 Apr–22 Apr 2007.

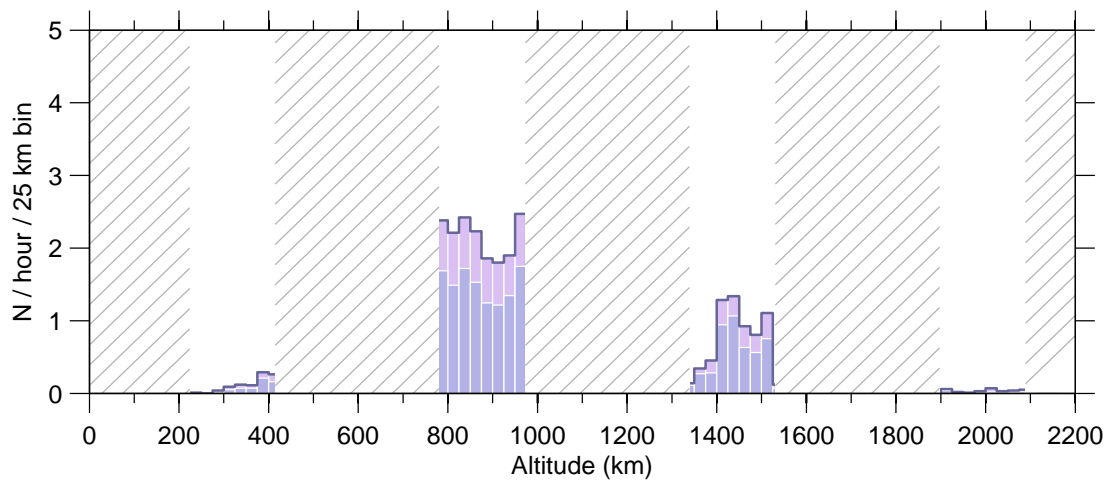


Figure 6: **Event rate v altitude**, 16 Apr–22 Apr 2007.

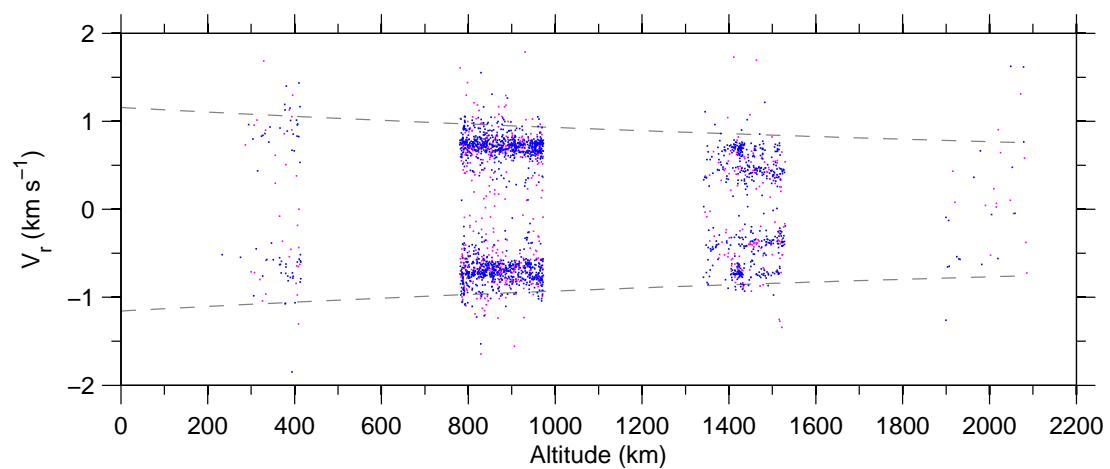


Figure 7: **Doppler-velocity v altitude**, 16 Apr–22 Apr 2007.

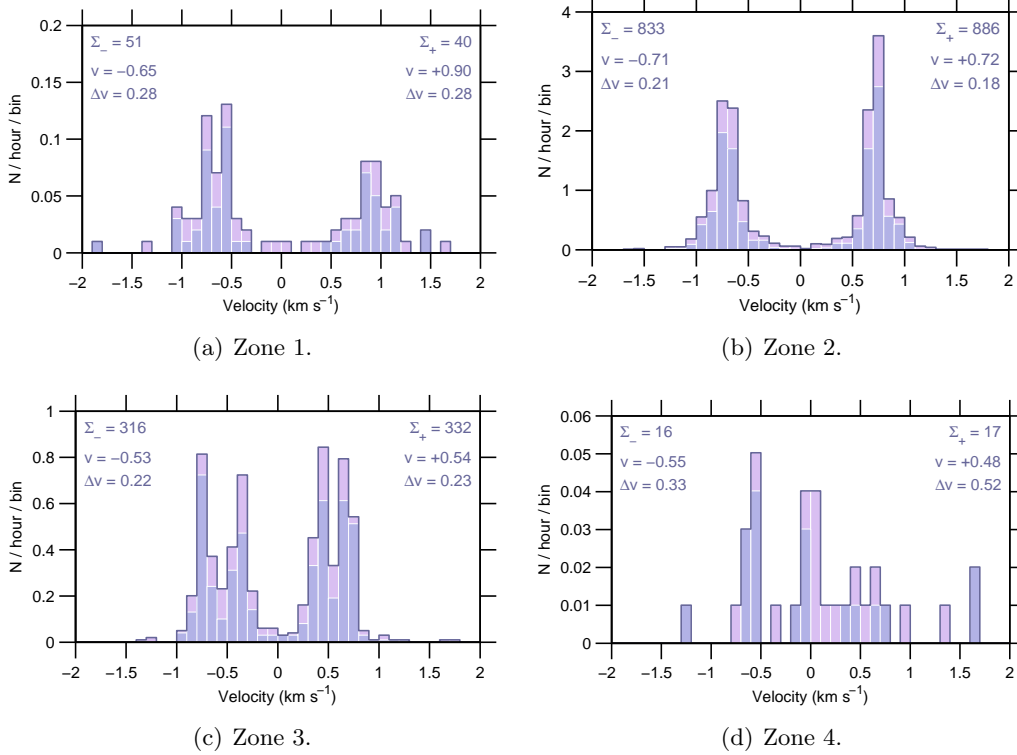


Figure 8: **Event rate v Doppler-velocity**, 16 Apr–22 Apr 2007.

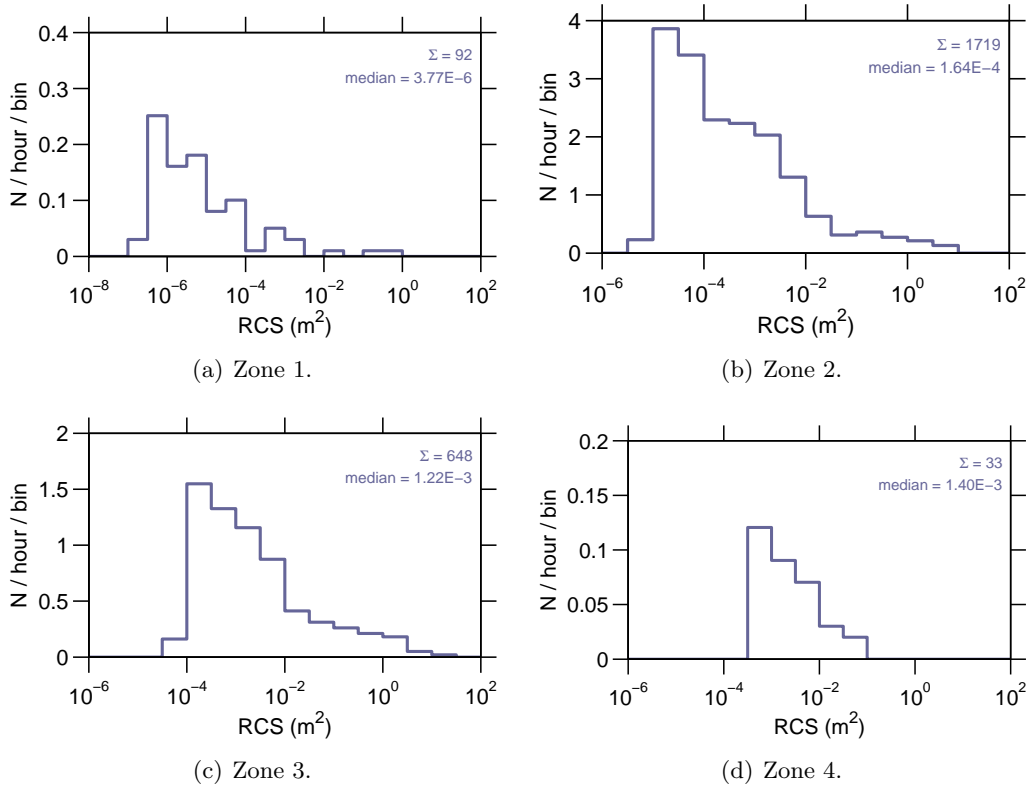


Figure 9: **Event rate v radar cross section**, 16 Apr–22 Apr 2007.