

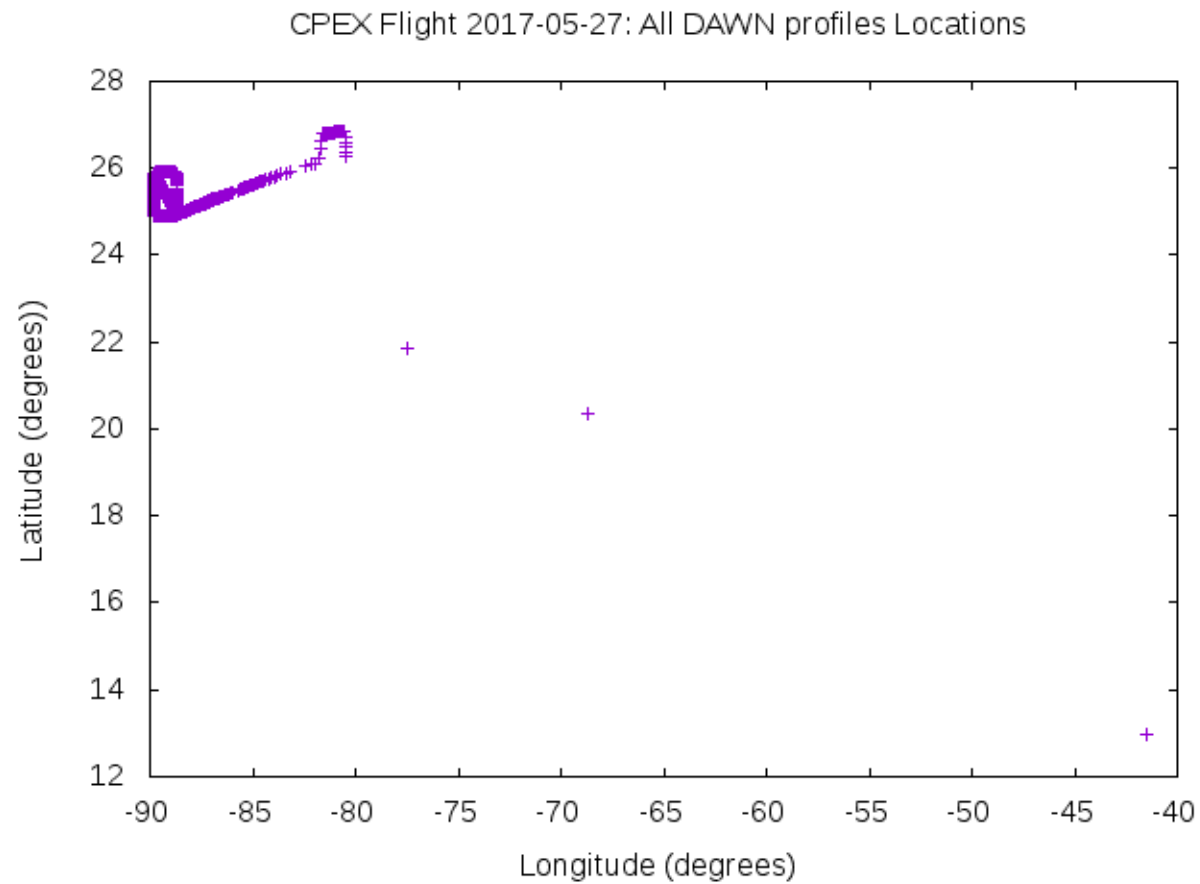
CPEX

Assessment of DAWN Data --V3

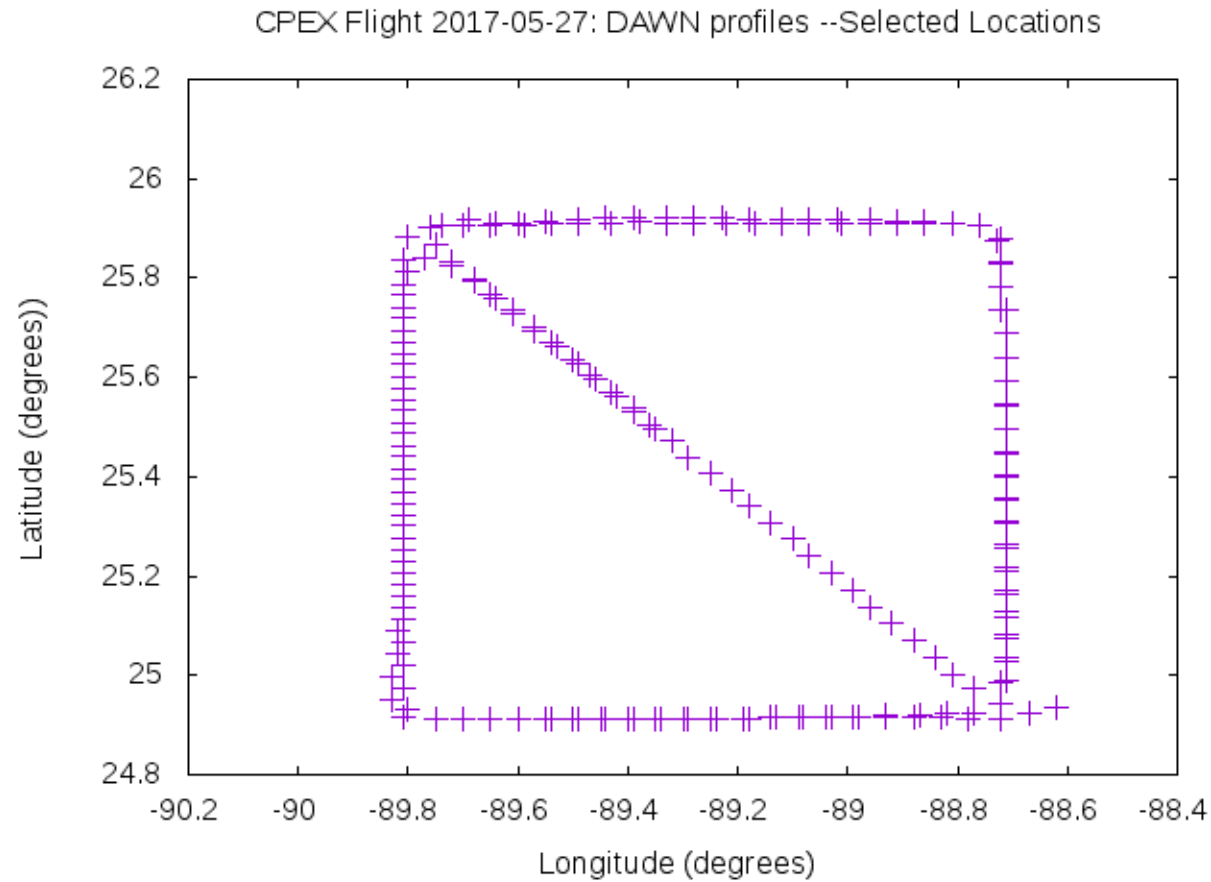
Flight 2017-05-27

Science Meeting 2018

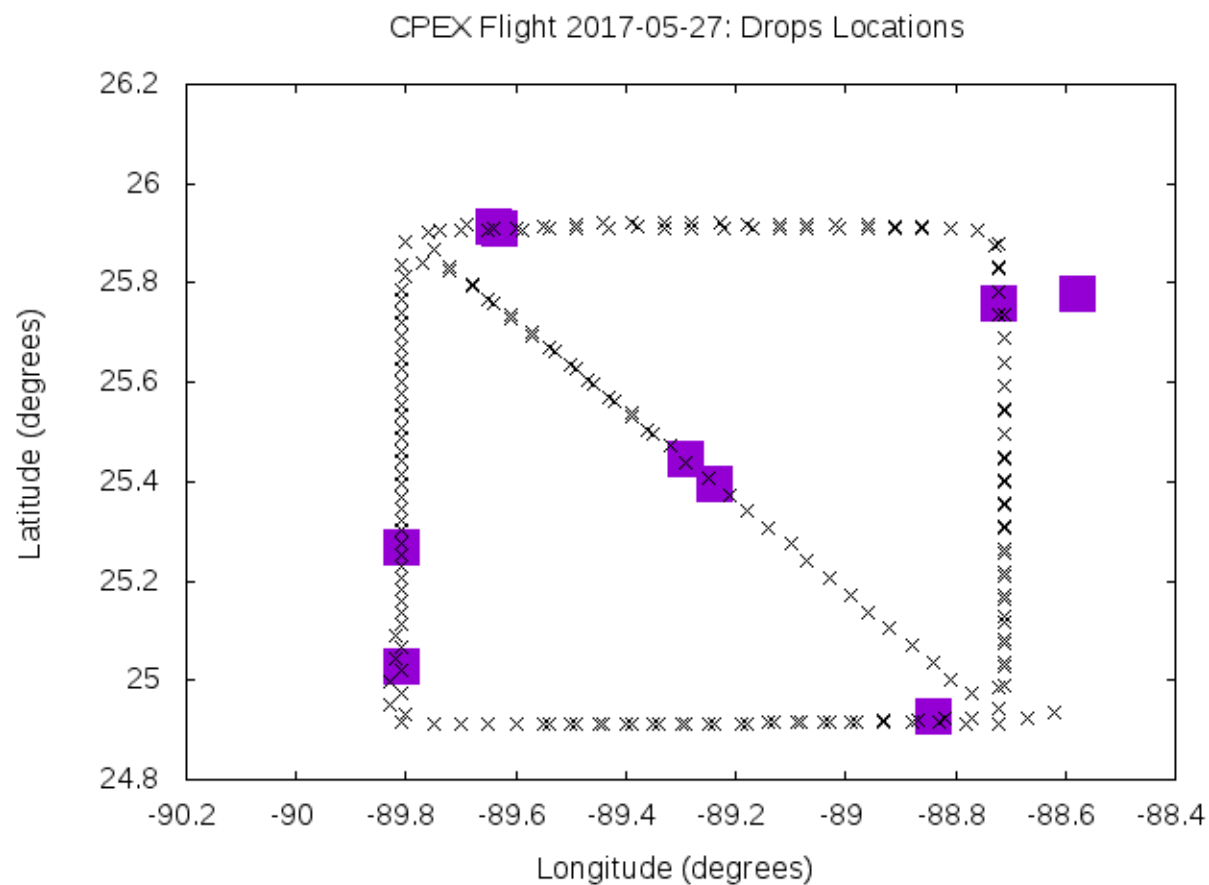
DAWN Profiles



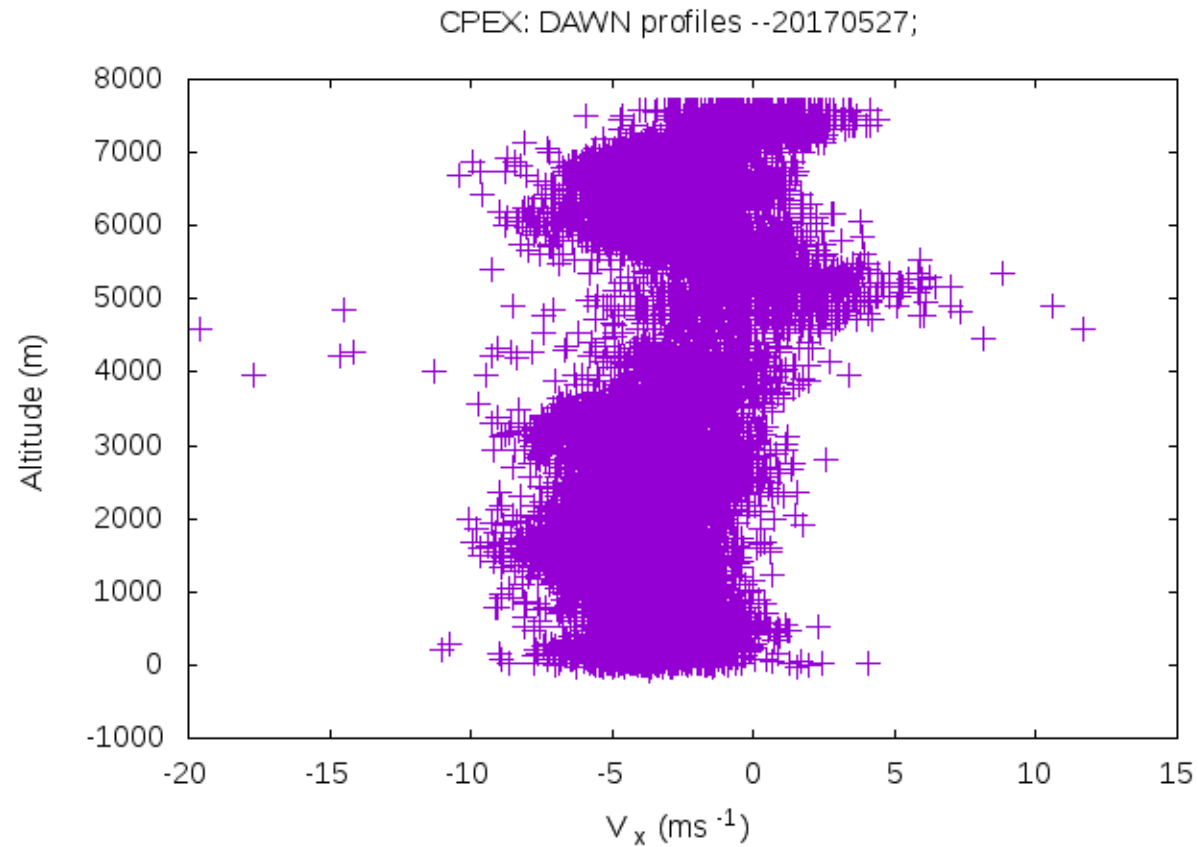
Selected Box



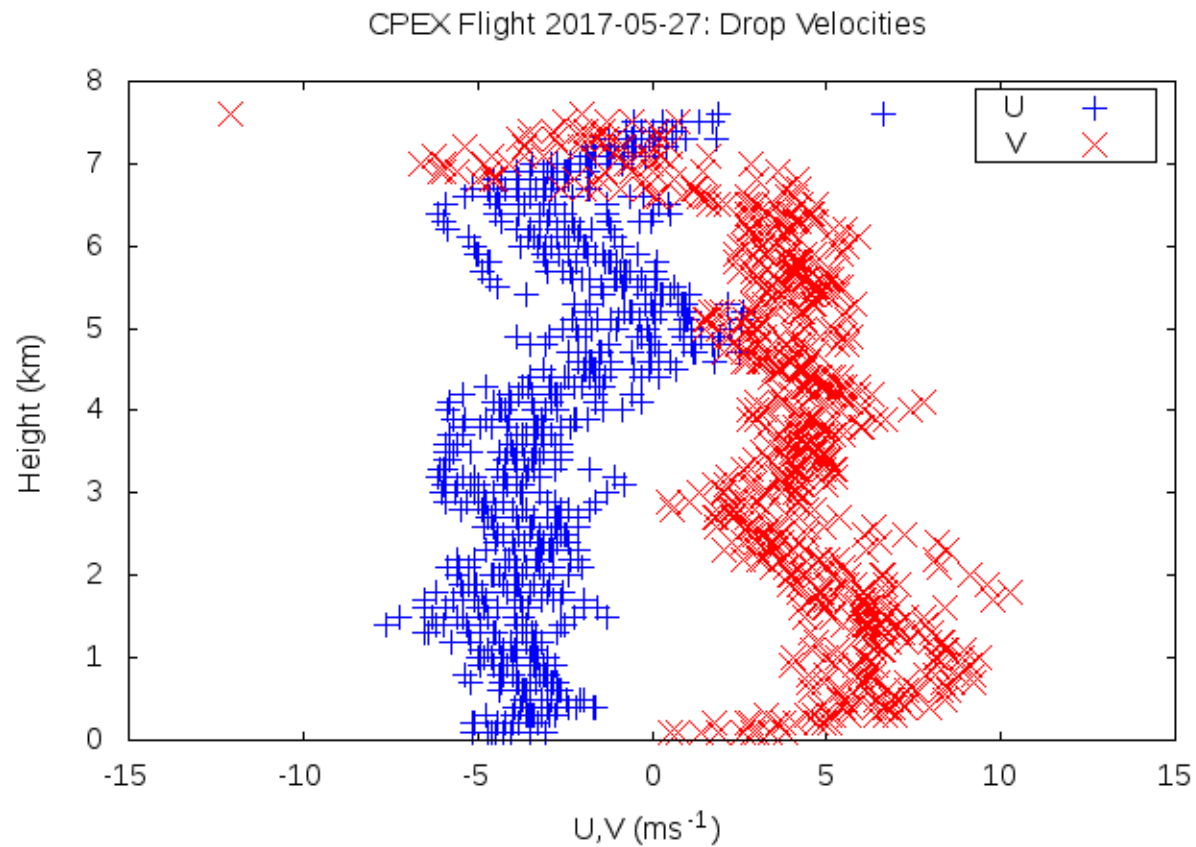
Dropsondes



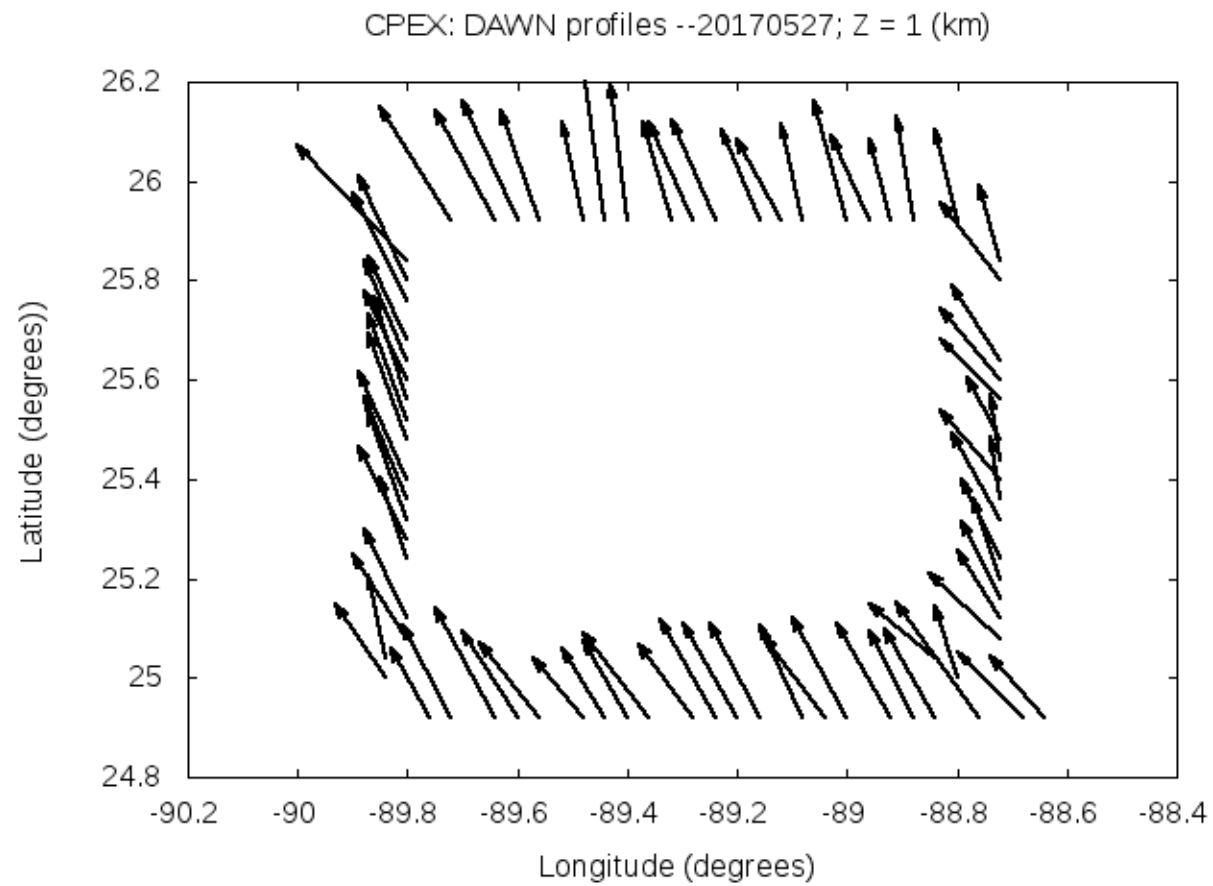
Zonal Velocity



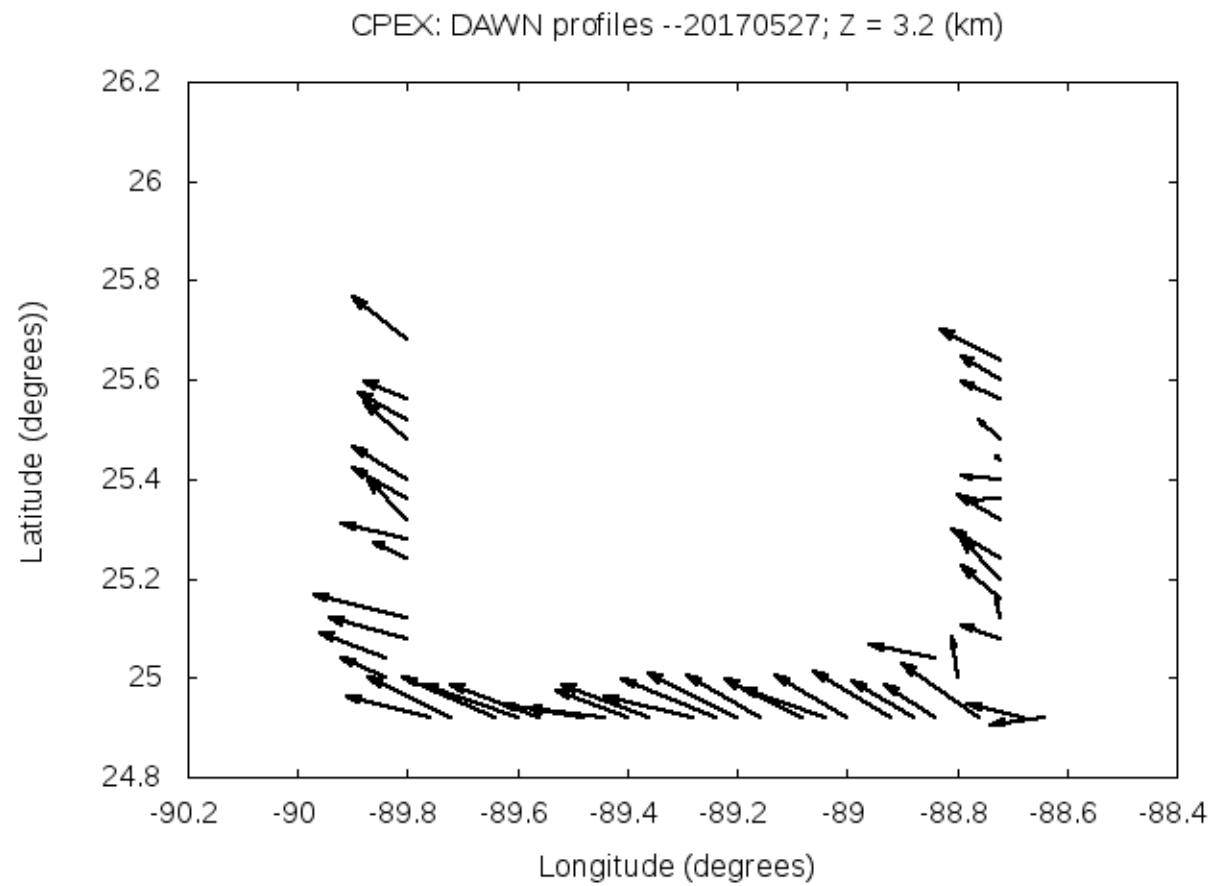
Drop Velocity Components



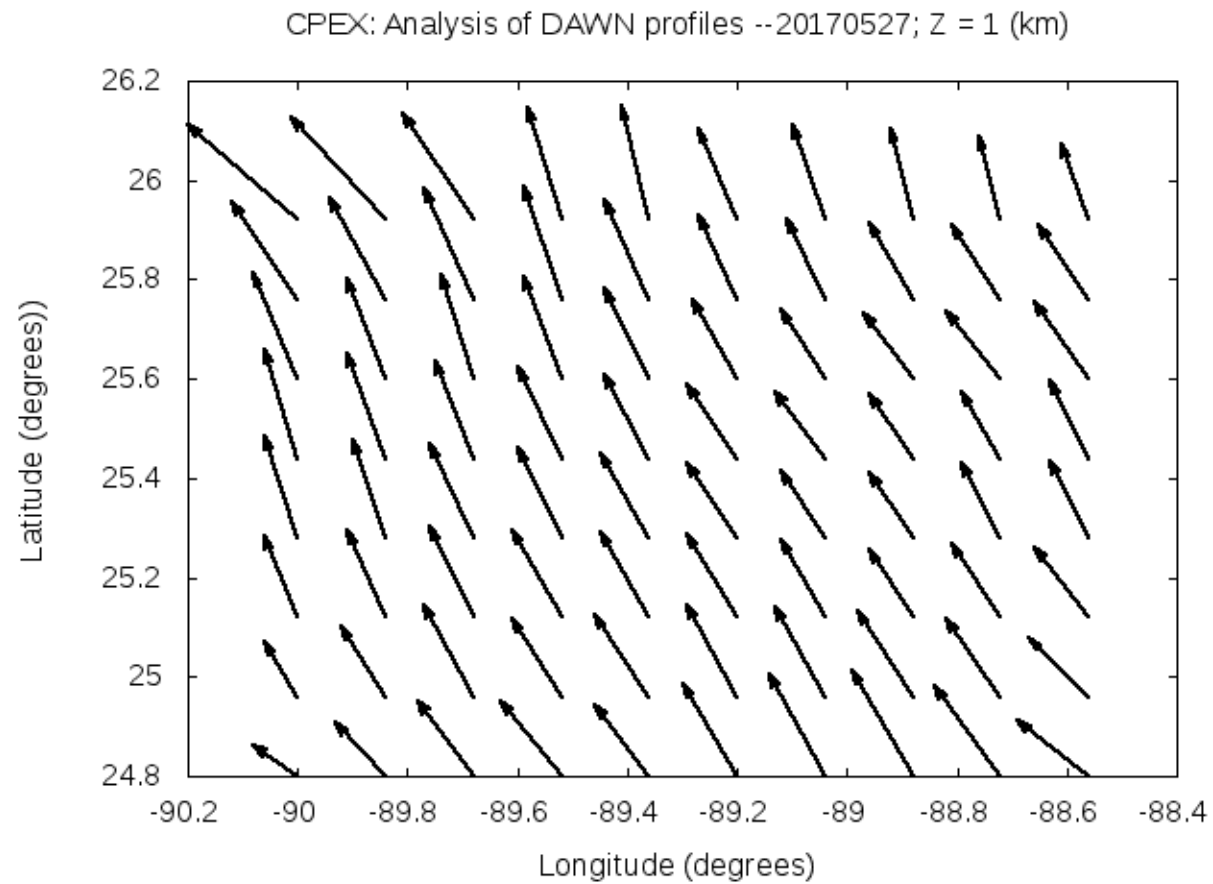
Box



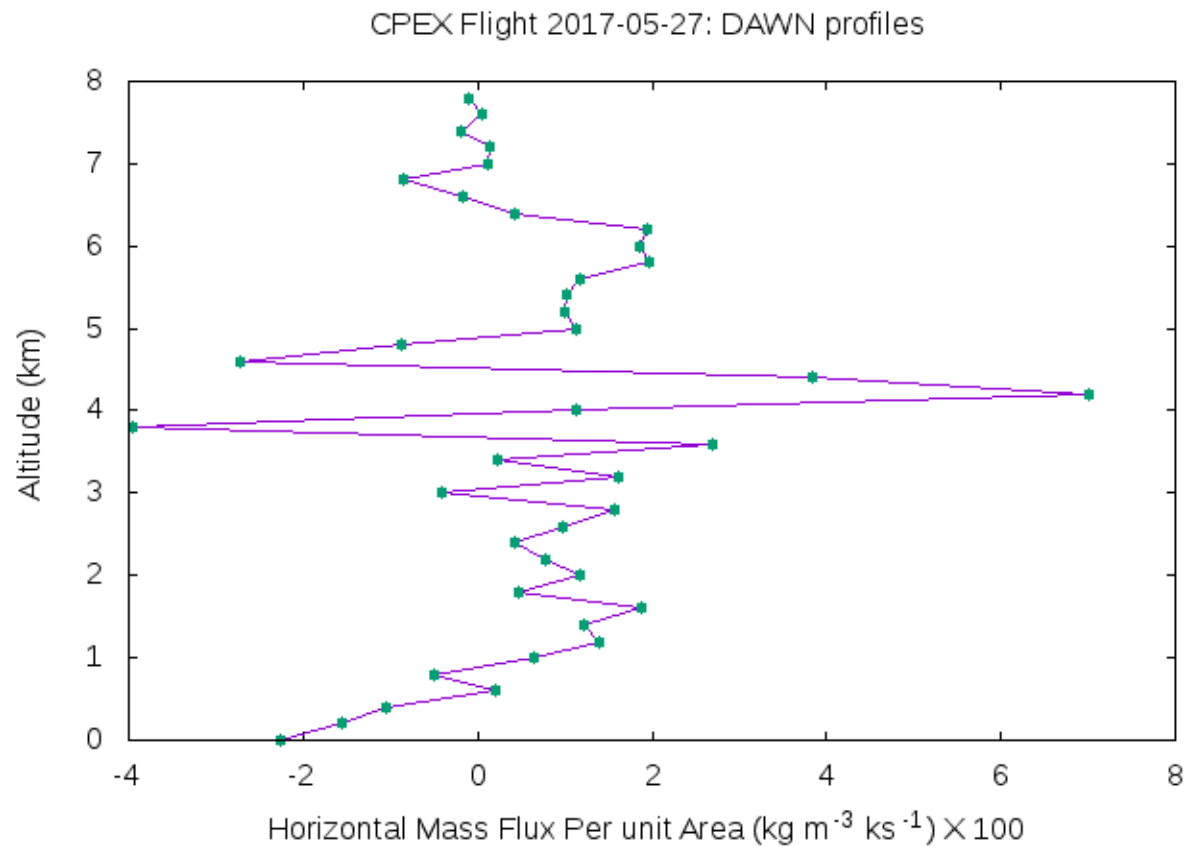
Gaps



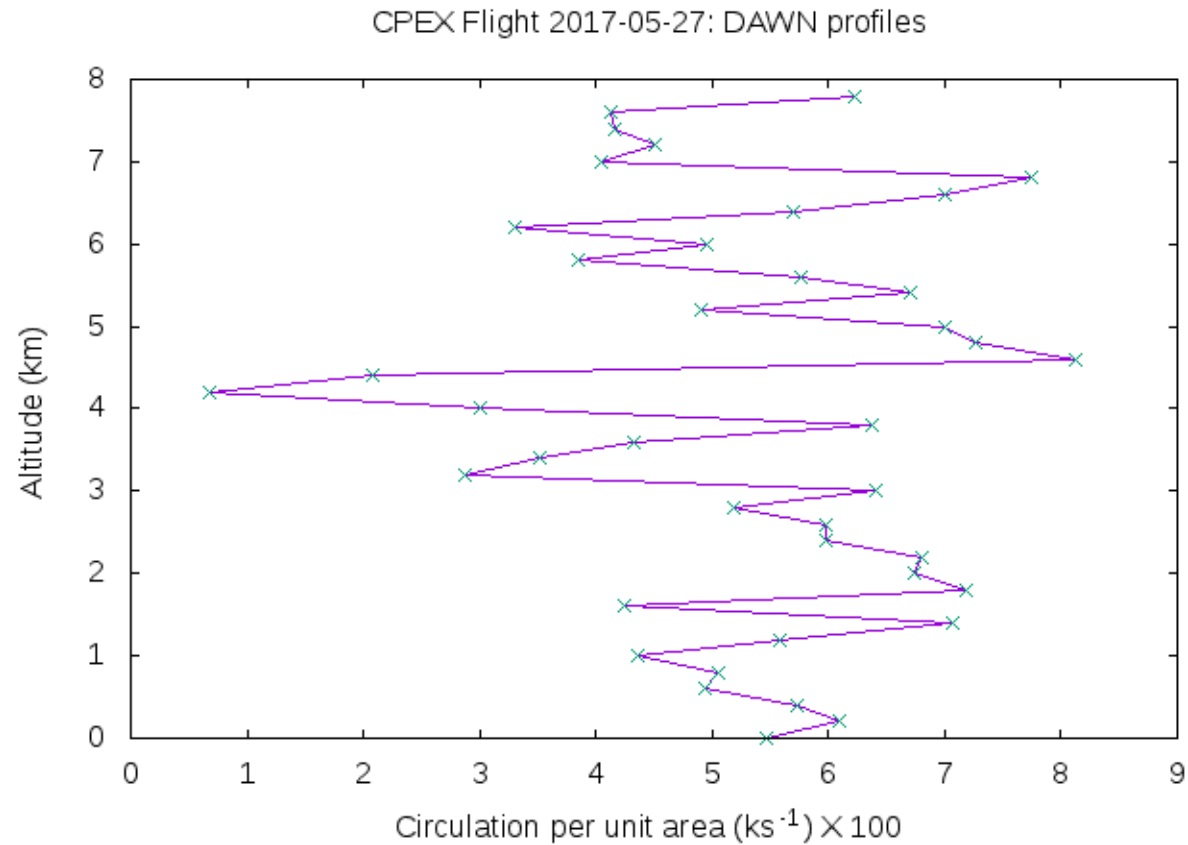
Interior



Mass Flux



Circulation

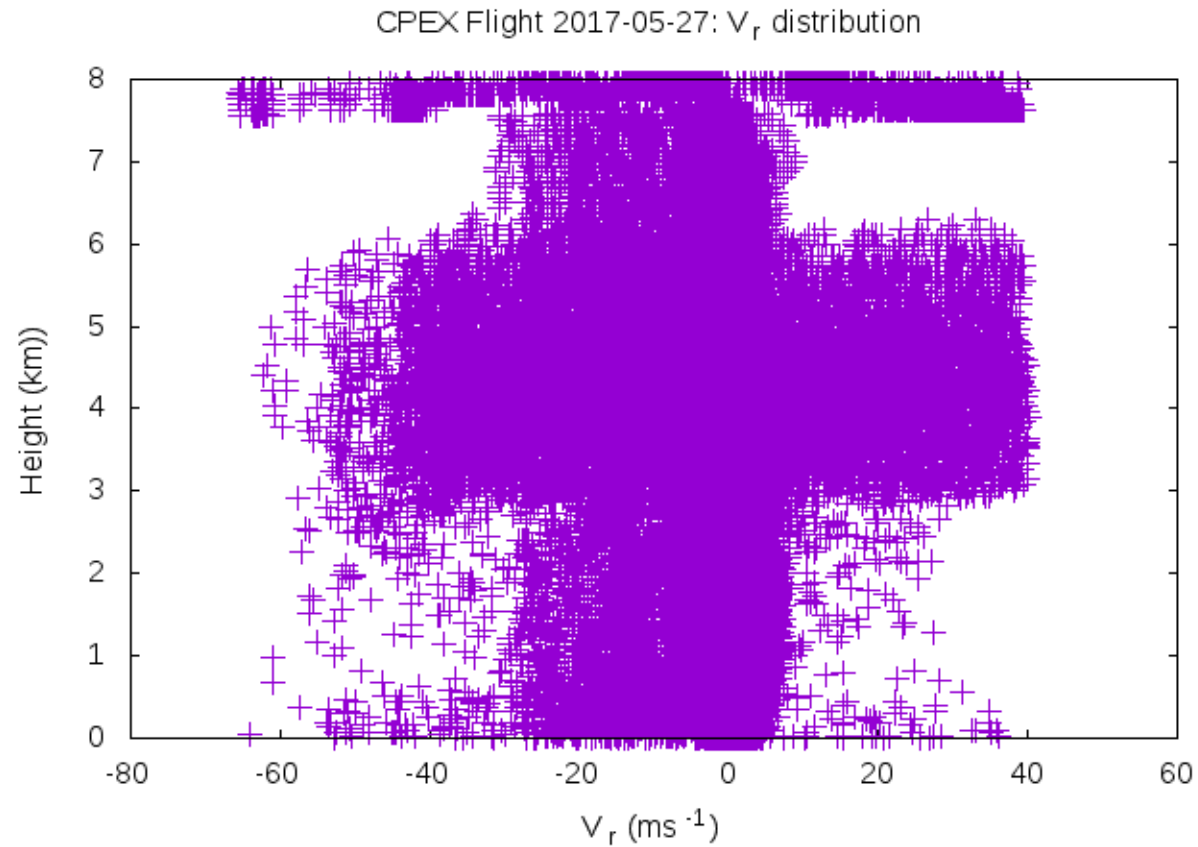


DAWN

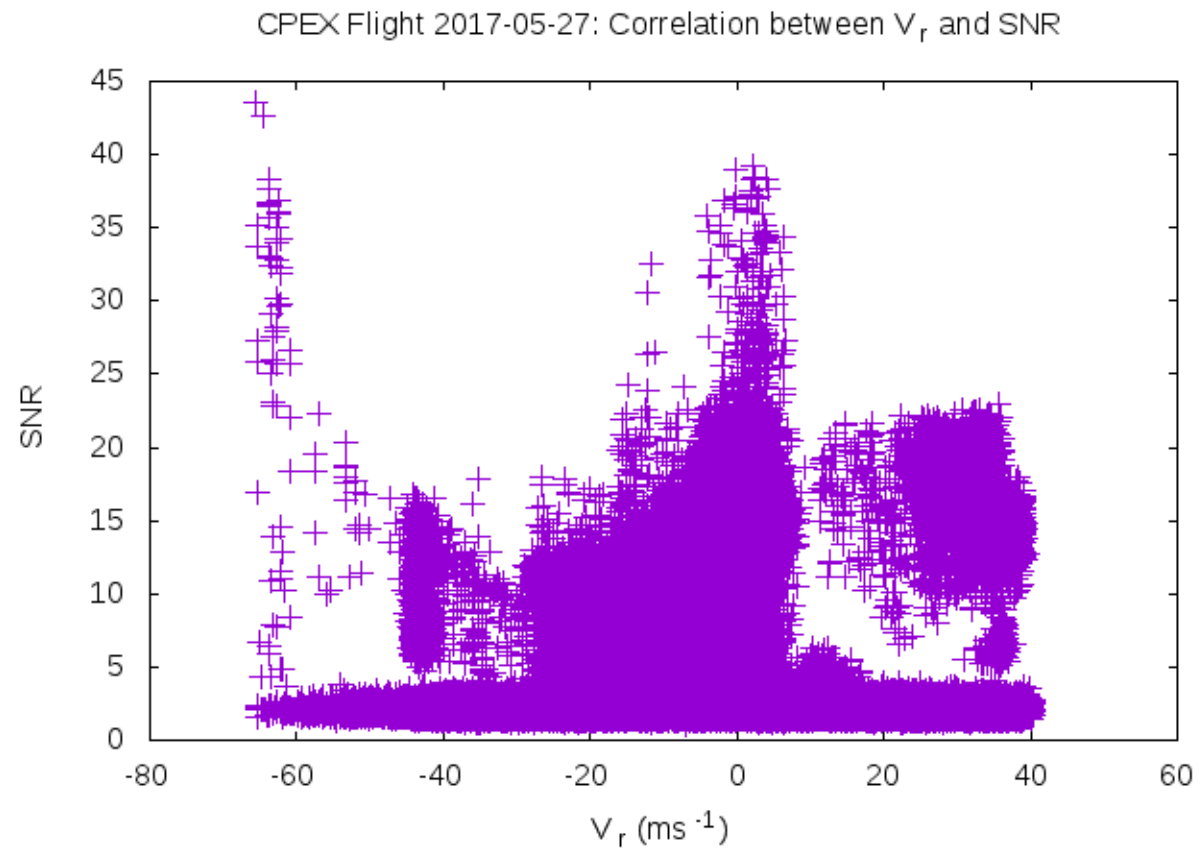
Line Of Sight

Data

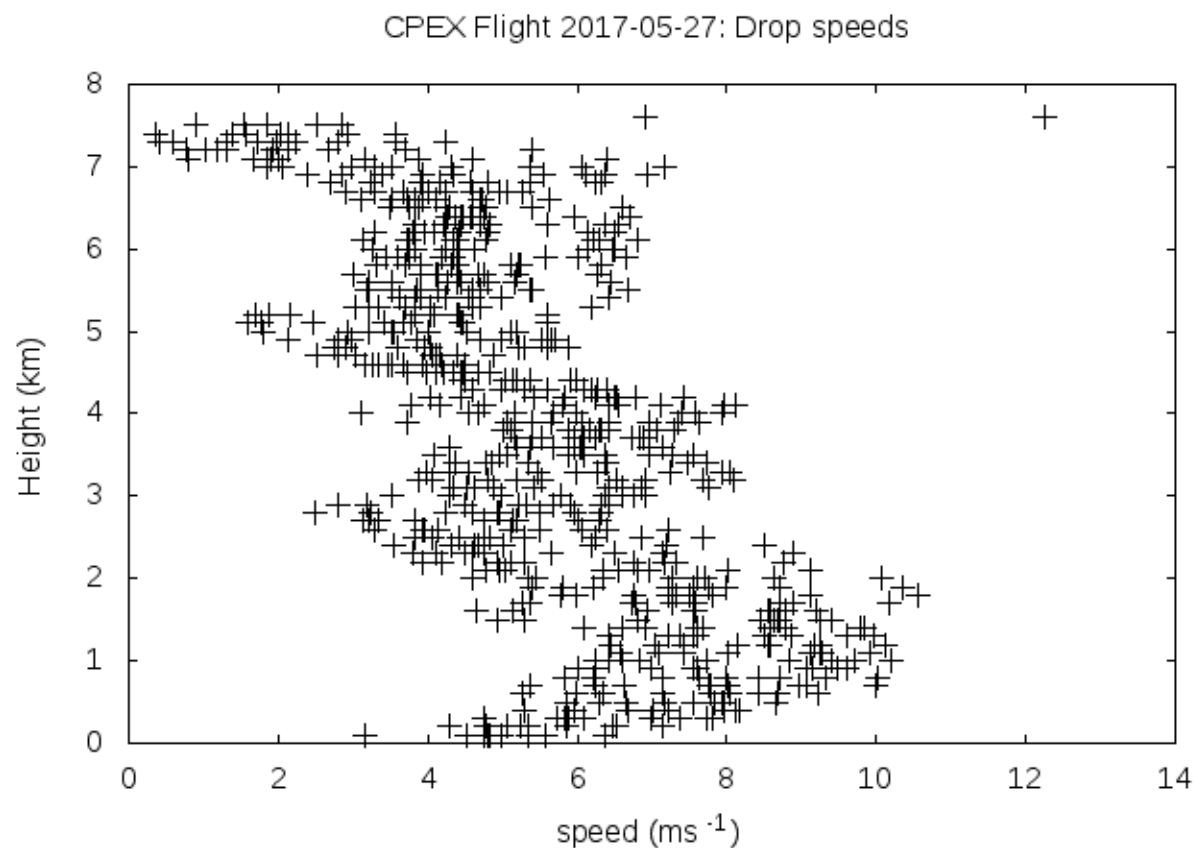
LOS Velocity Distribution



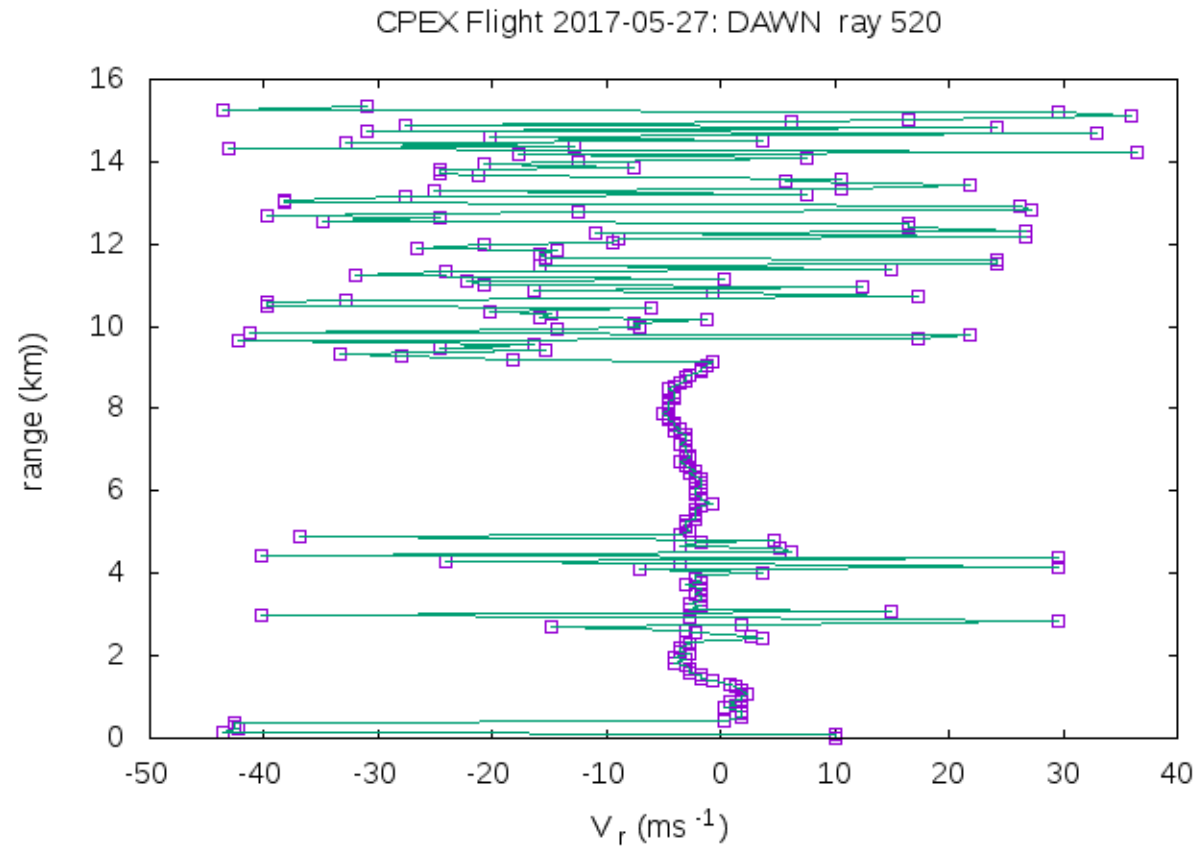
V_r vs. SNR



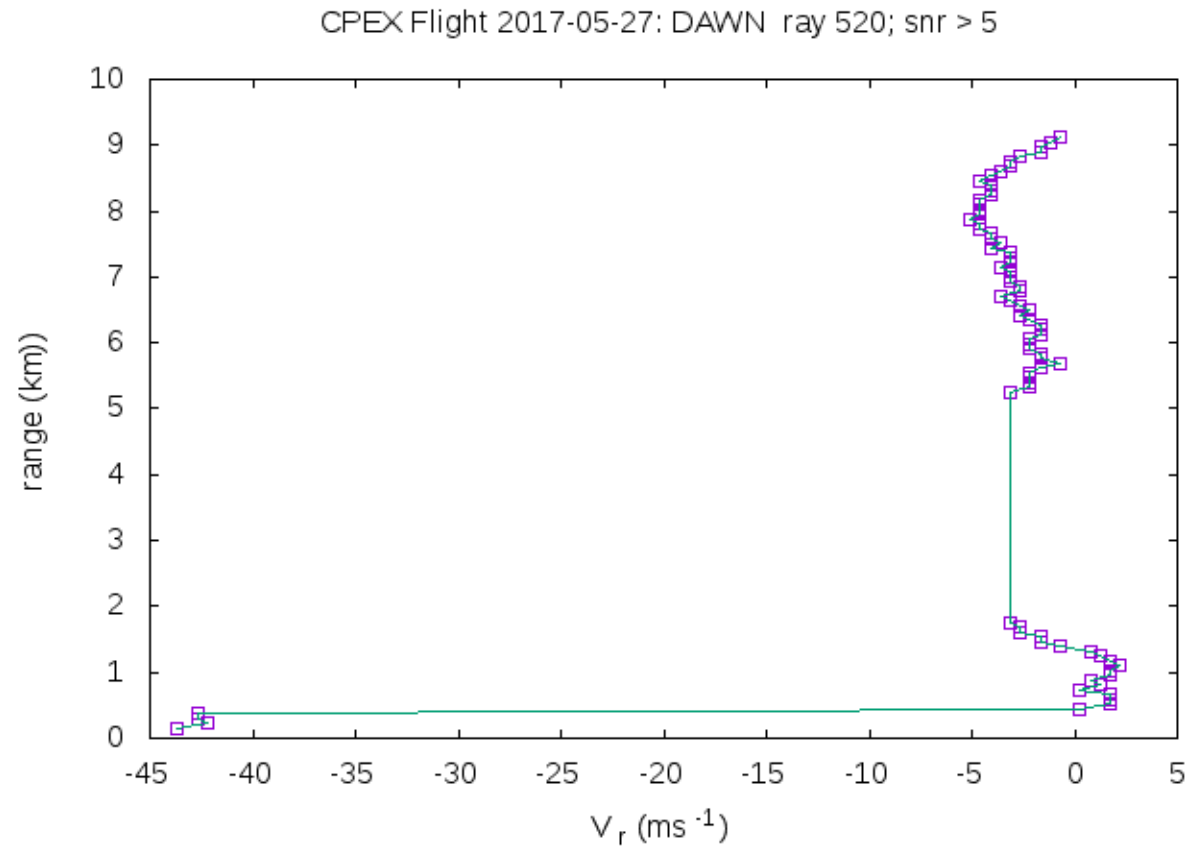
DROP speeds



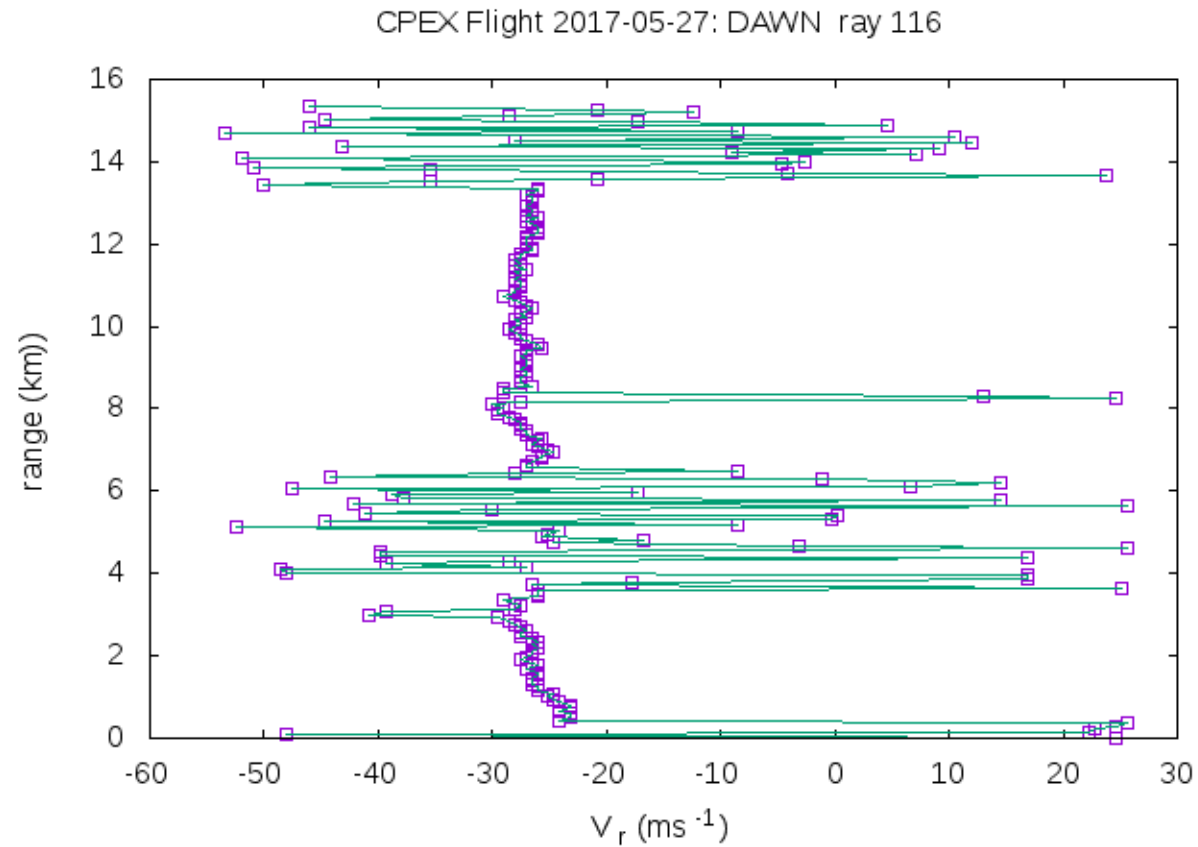
Single Ray



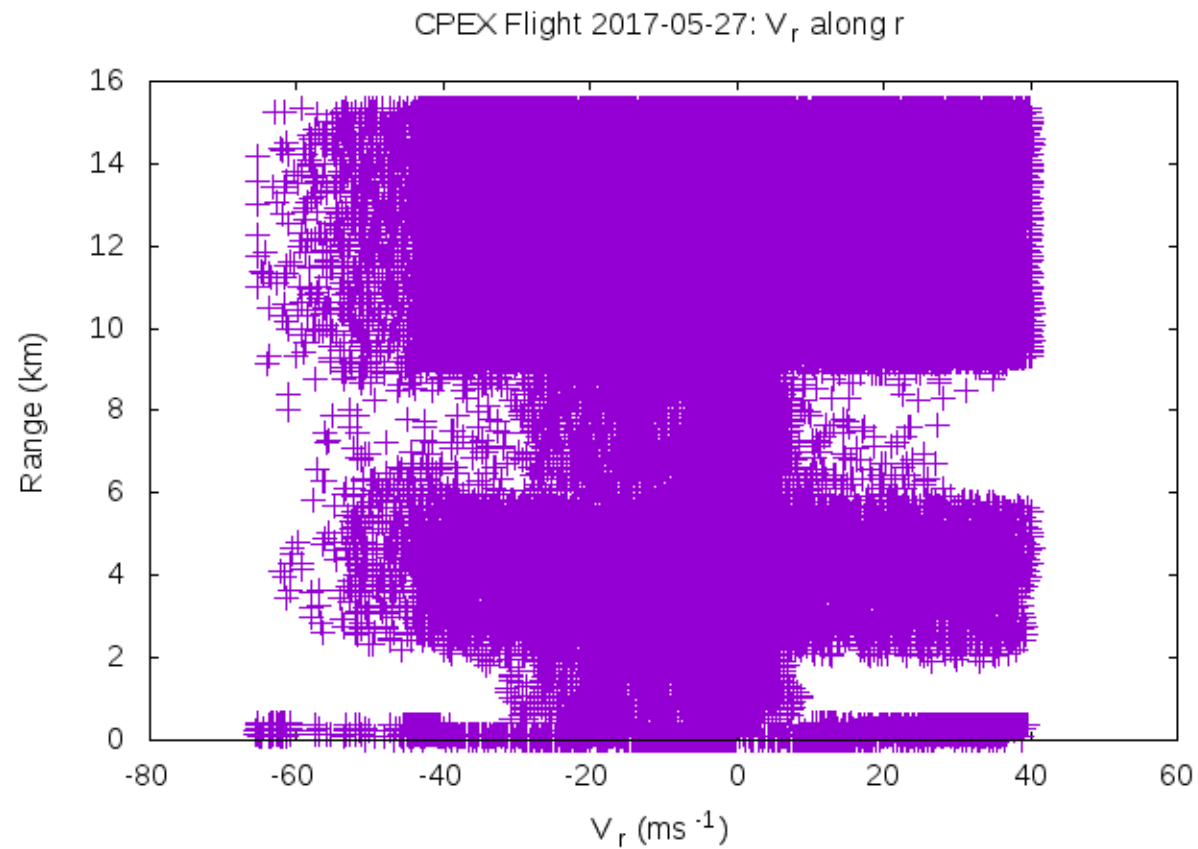
Single Ray



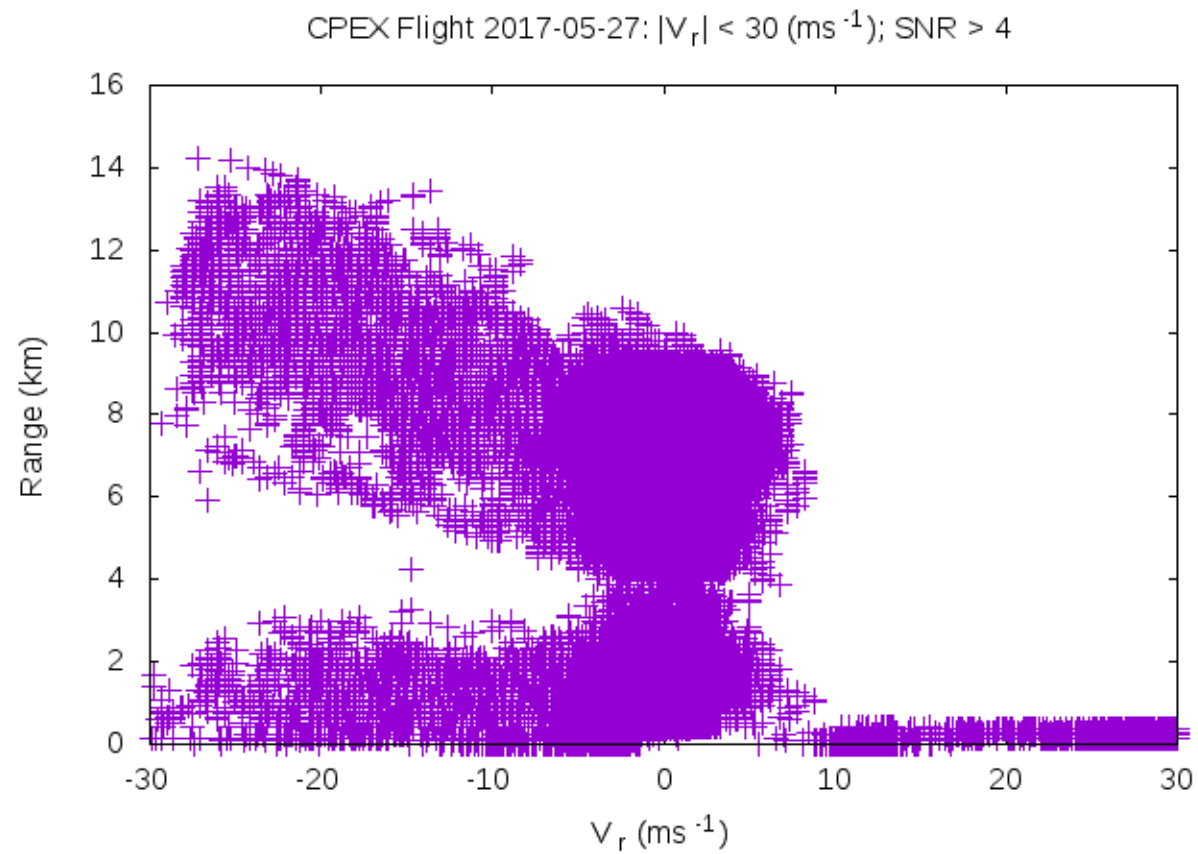
Single Ray --QC?



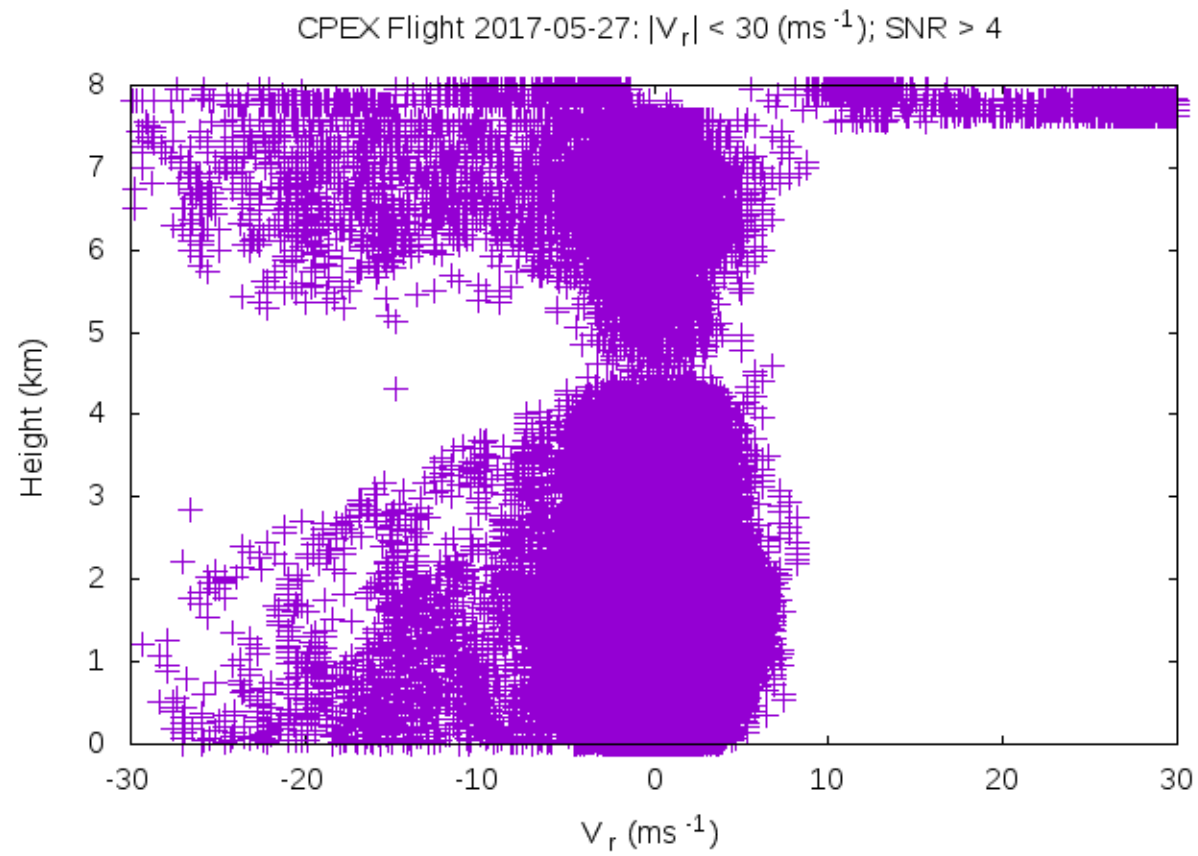
QC –In progress



QC



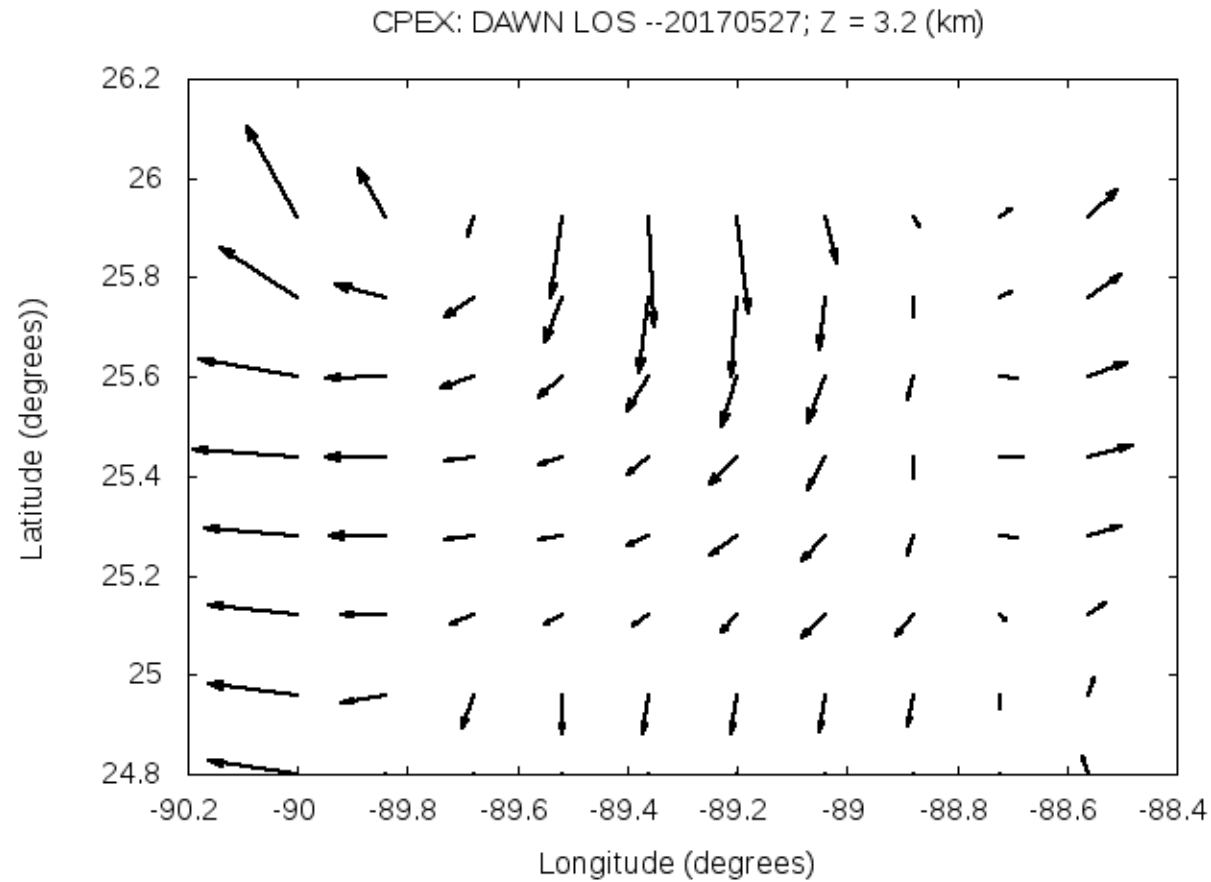
QC



Assumed Parameters

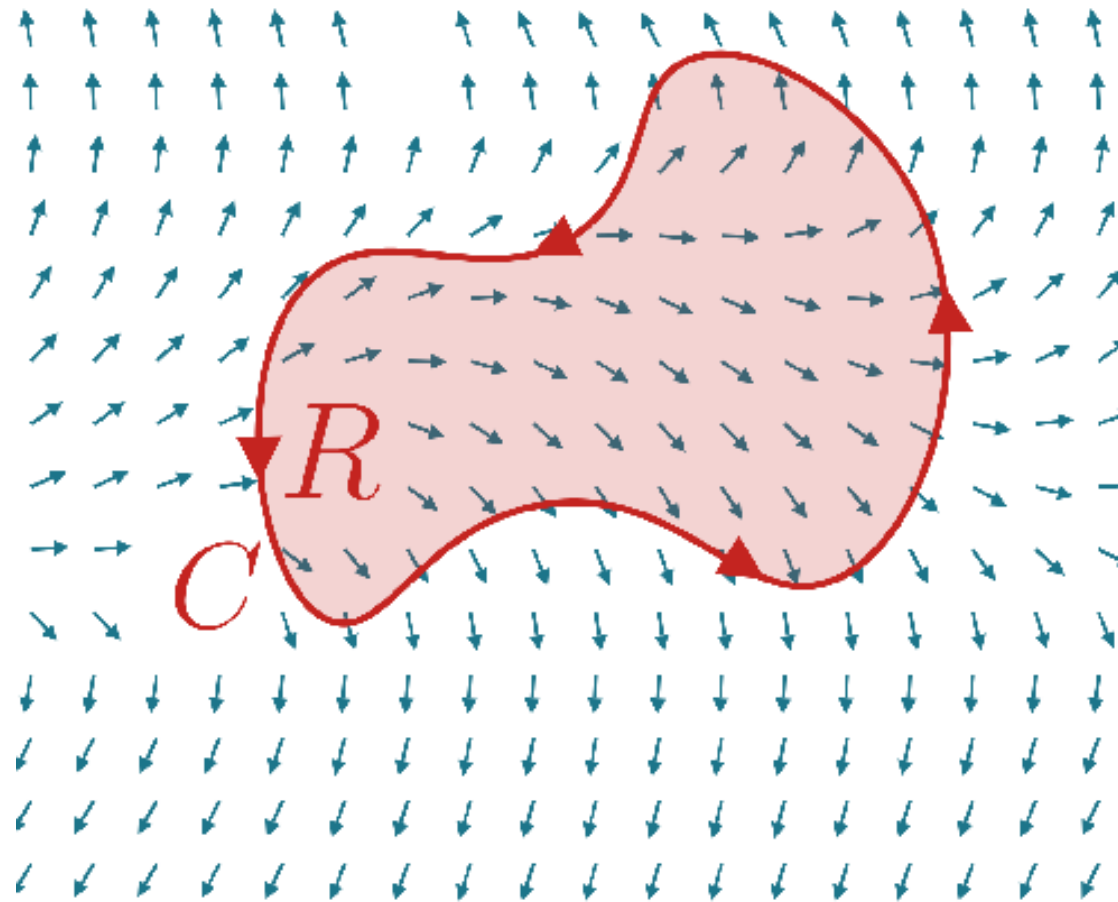
- Nadir Angle: 30 degrees.
- LOS directions: 0.0, 45.0, 90.0, 135.0,
180.0, 225.0, 270.0, 315.0
- Nyquist Velocity: N/A
- AC speed : N/A

Work in Progress



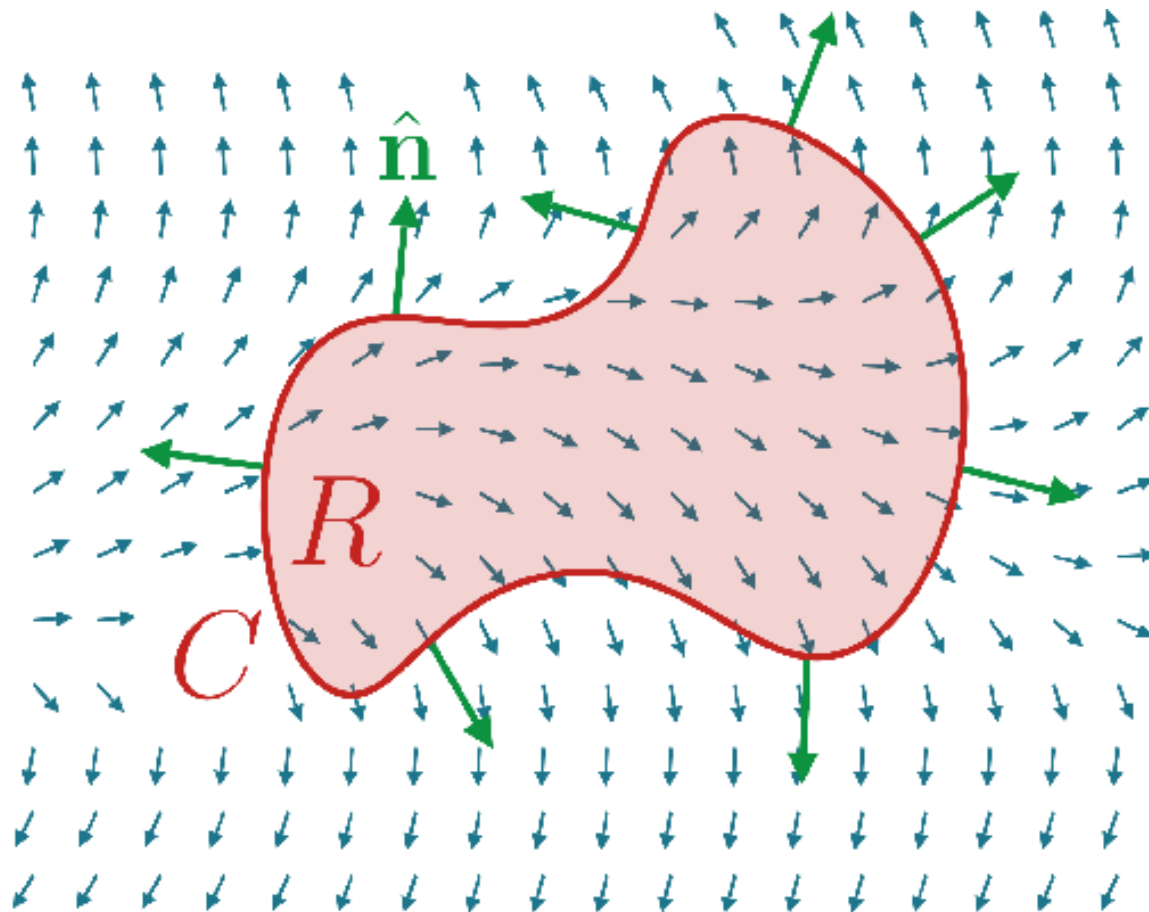
Questions?

Green's Theorem



$$\oint_C \vec{F} \cdot \hat{t} \, dl = \iint_R \nabla_{2D} \times \vec{F} \, da$$

2-D Gauss's Theorem



$$\oint_C \vec{F} \cdot \hat{n} dl = \iint_R \nabla \cdot \vec{F} da$$

Interior Velocity Field

Data misfit

+

Anelastic Mass Continuity