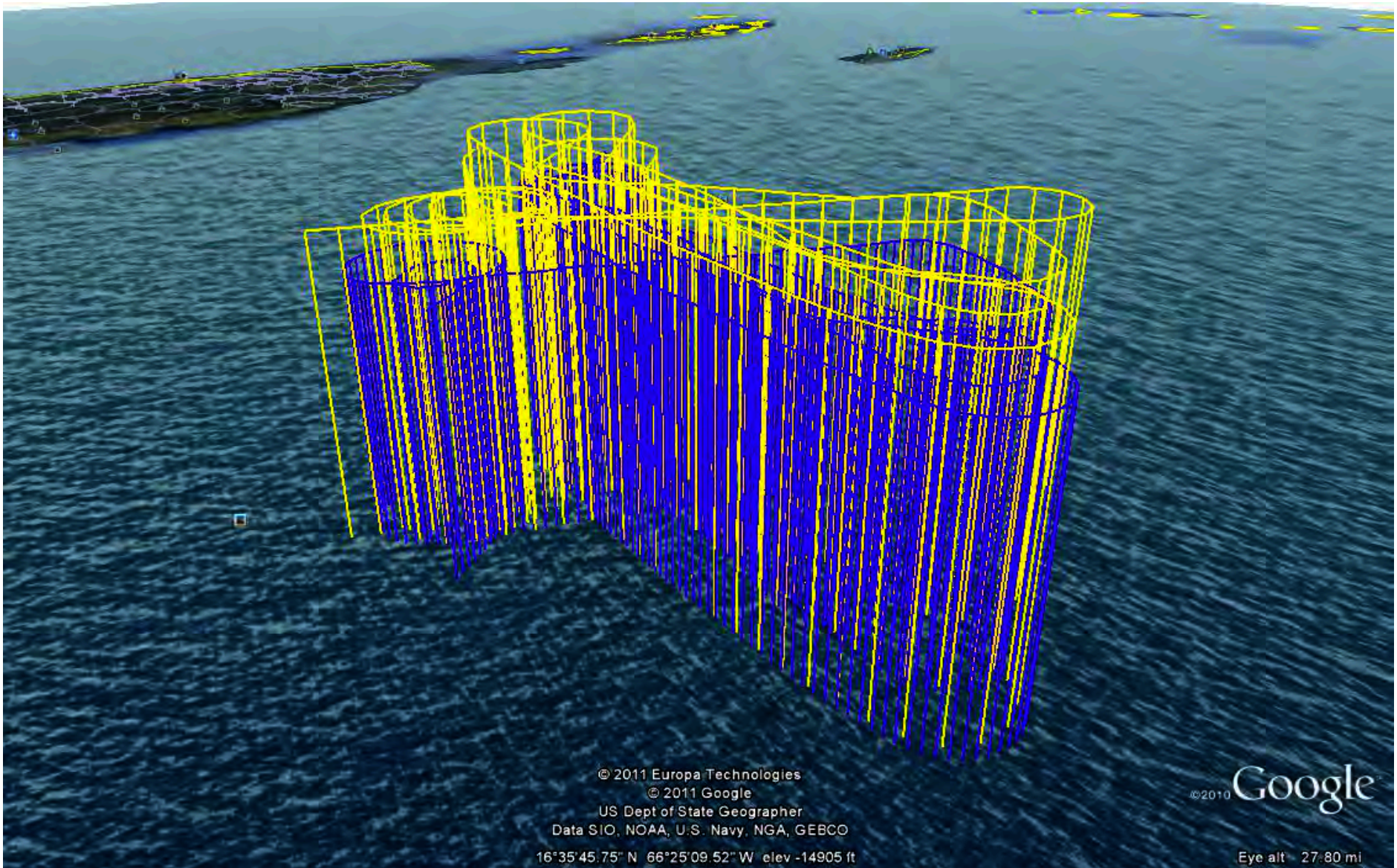
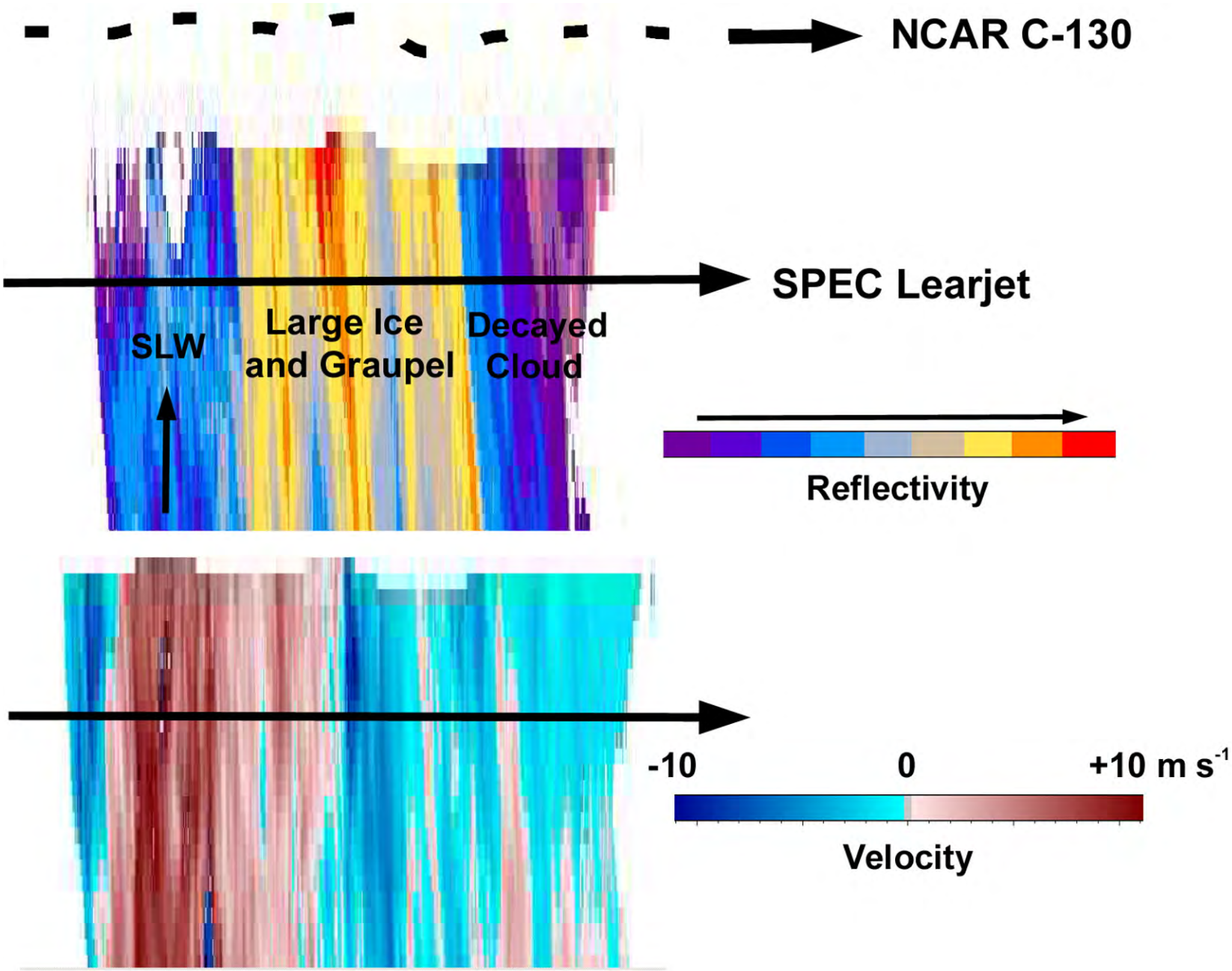
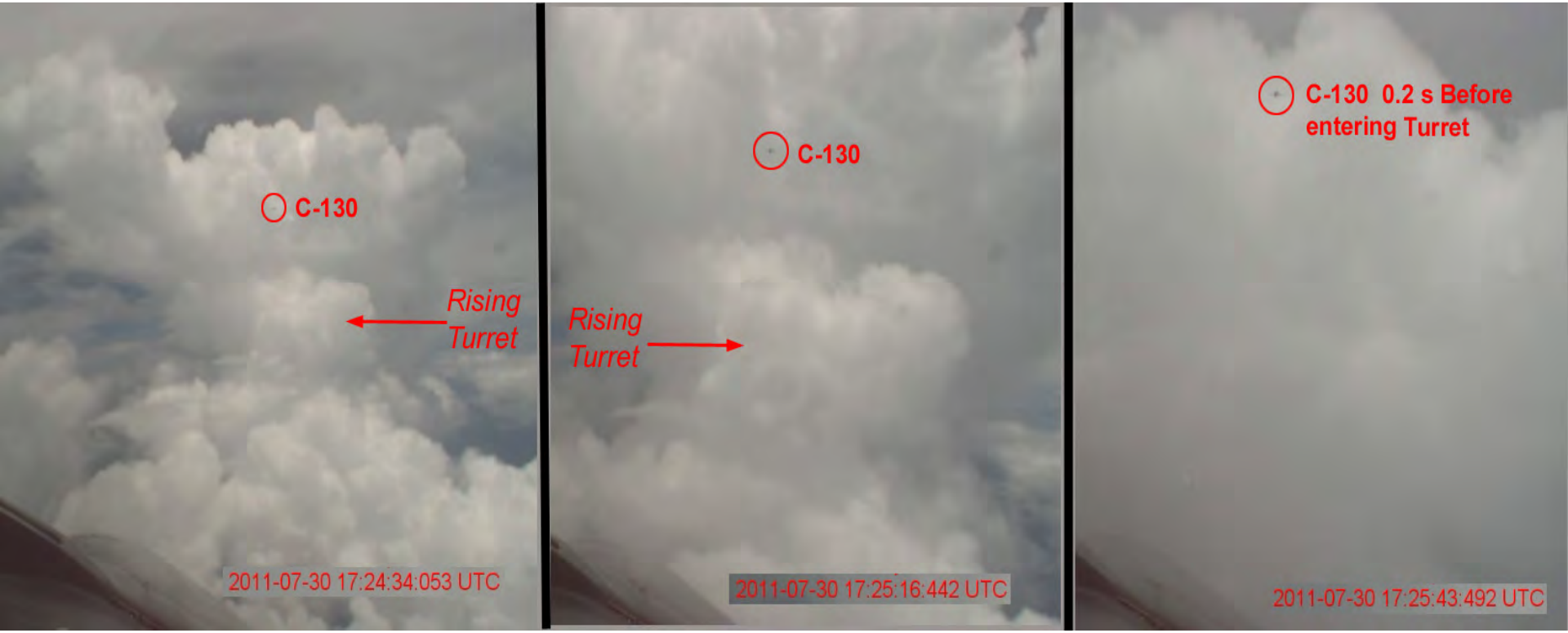
Lear (purple) and C-130 (yellow) Flight Tracks During Coordinated Penetrations on 30 July 2011

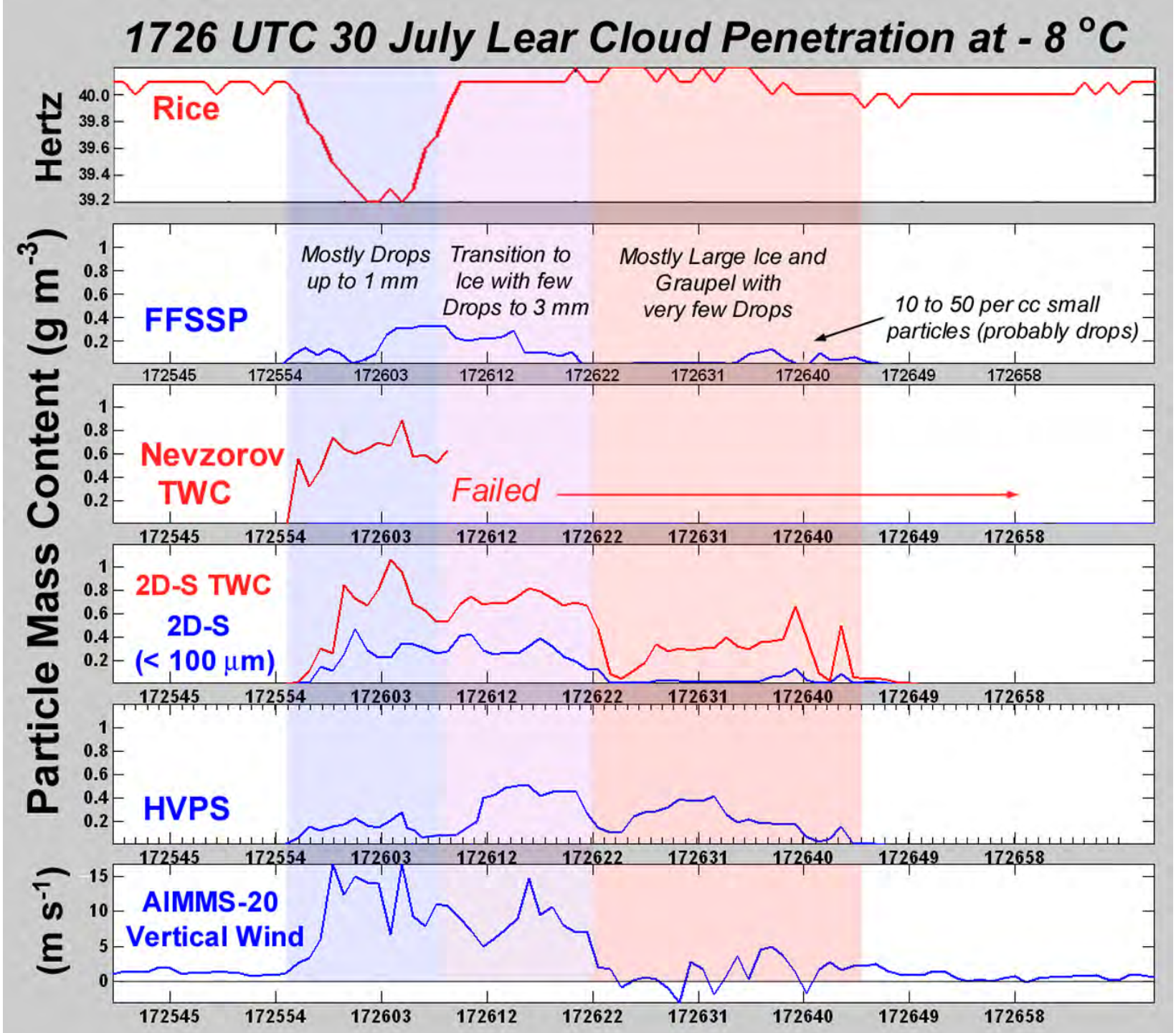


C-130 UW Cloud Radar Data for 1726 Cloud Penetration

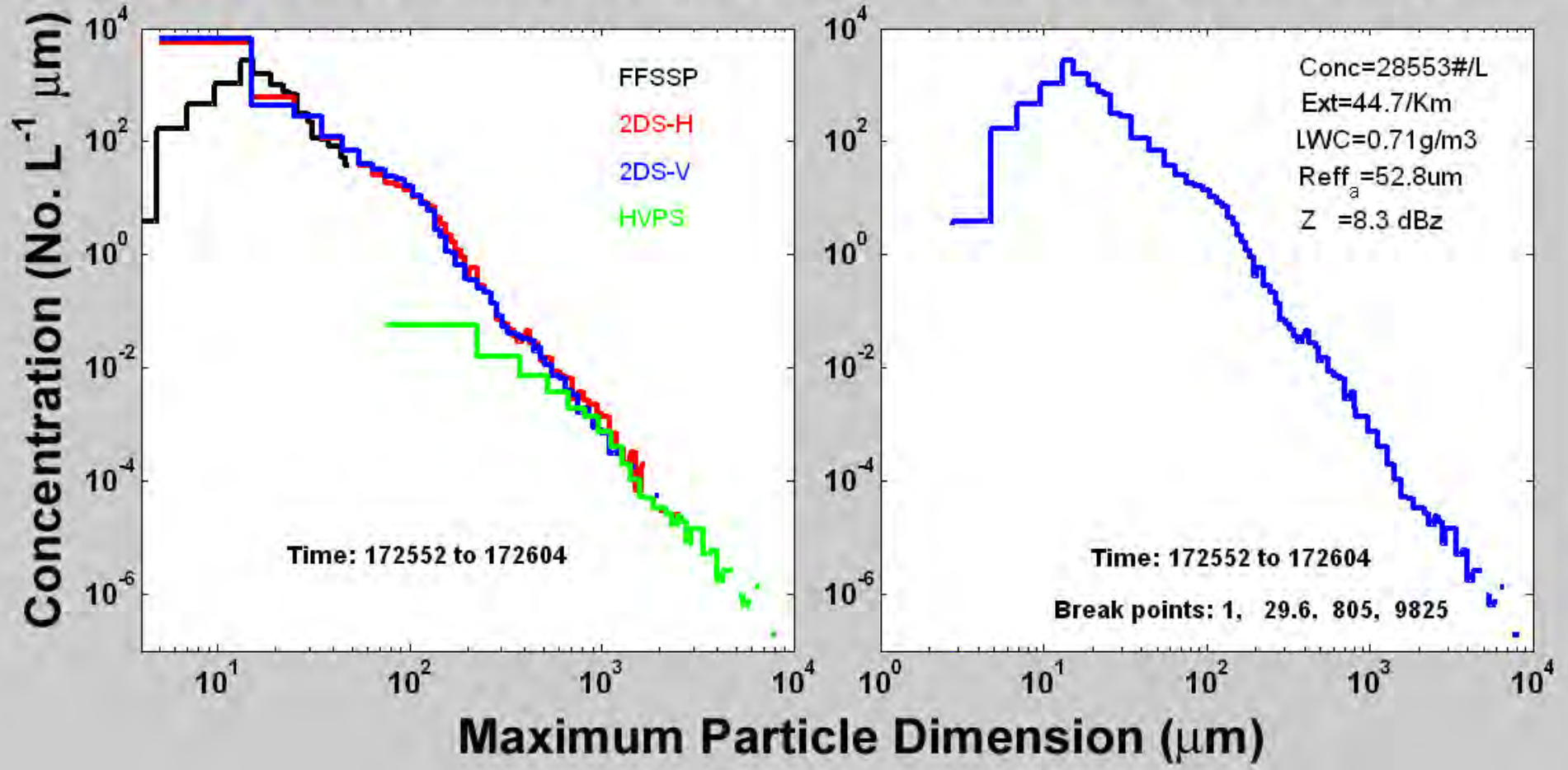


Lear Cockpit Time-Lapse Photos Showing Rising Turret and Older Cloud Behind that C-130 Penetrated and Lear Penetrated 11-s later and 1,500 ft Below C-130

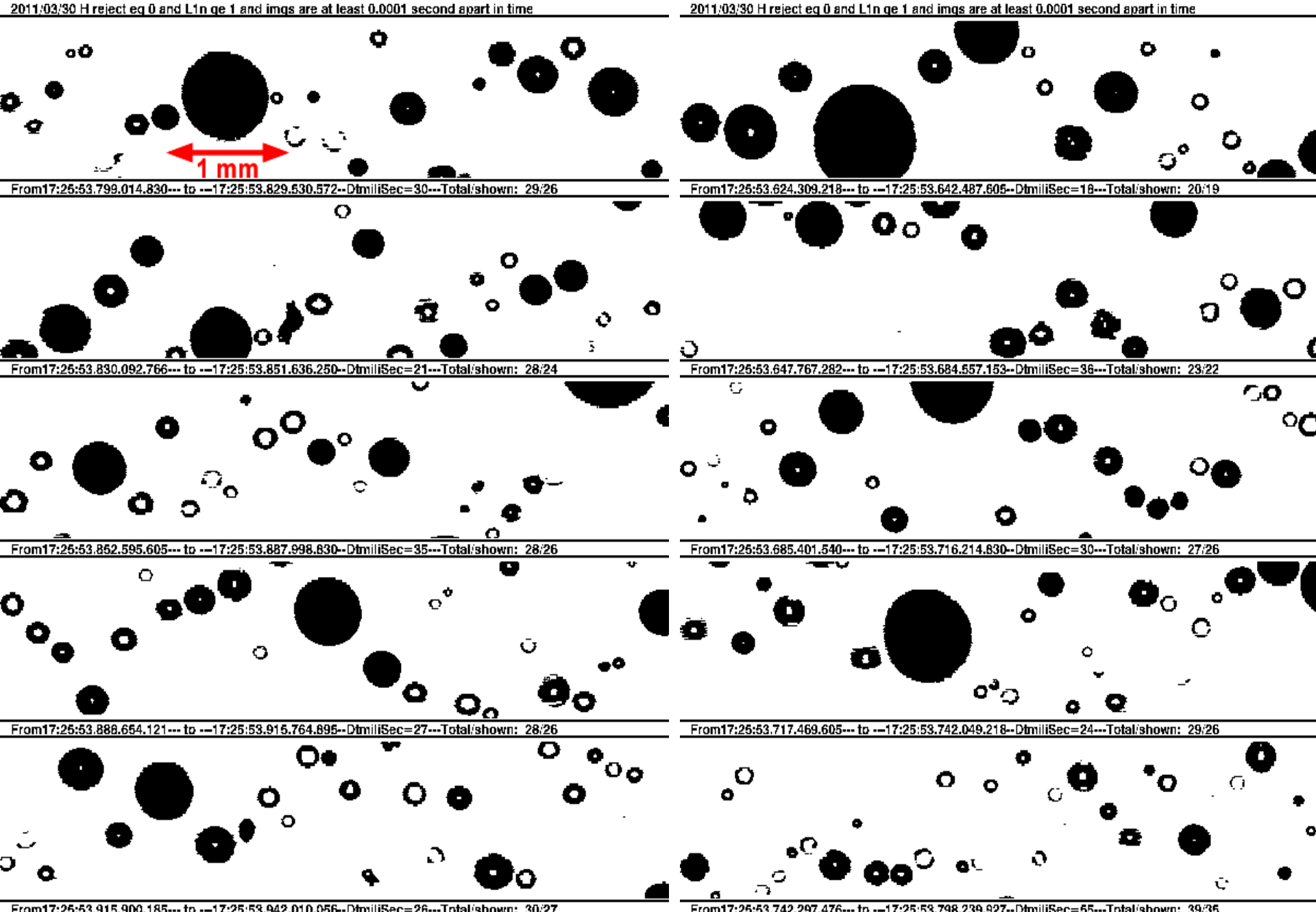



1726 UTC 30 July Lear Cloud Penetration at - 8 °C
Hertz
Rice
Particle Mass Content (g m-3)
FFSSP
Mostly Drops up to 1 mm
Transition to Ice with few Drops to 3 mm
Mostly Large Ice and Graupel with very few Drops
10 to 50 per cc small particles (probably drops)
Nevzorov TWC
Failed
2D-S TWC
2D-S (< 100 μm)
HVPS
(m s-1)
AIMMS-20 Vertical Wind
172545
172554
172603
172612
172622
172631
172640
172649
172658

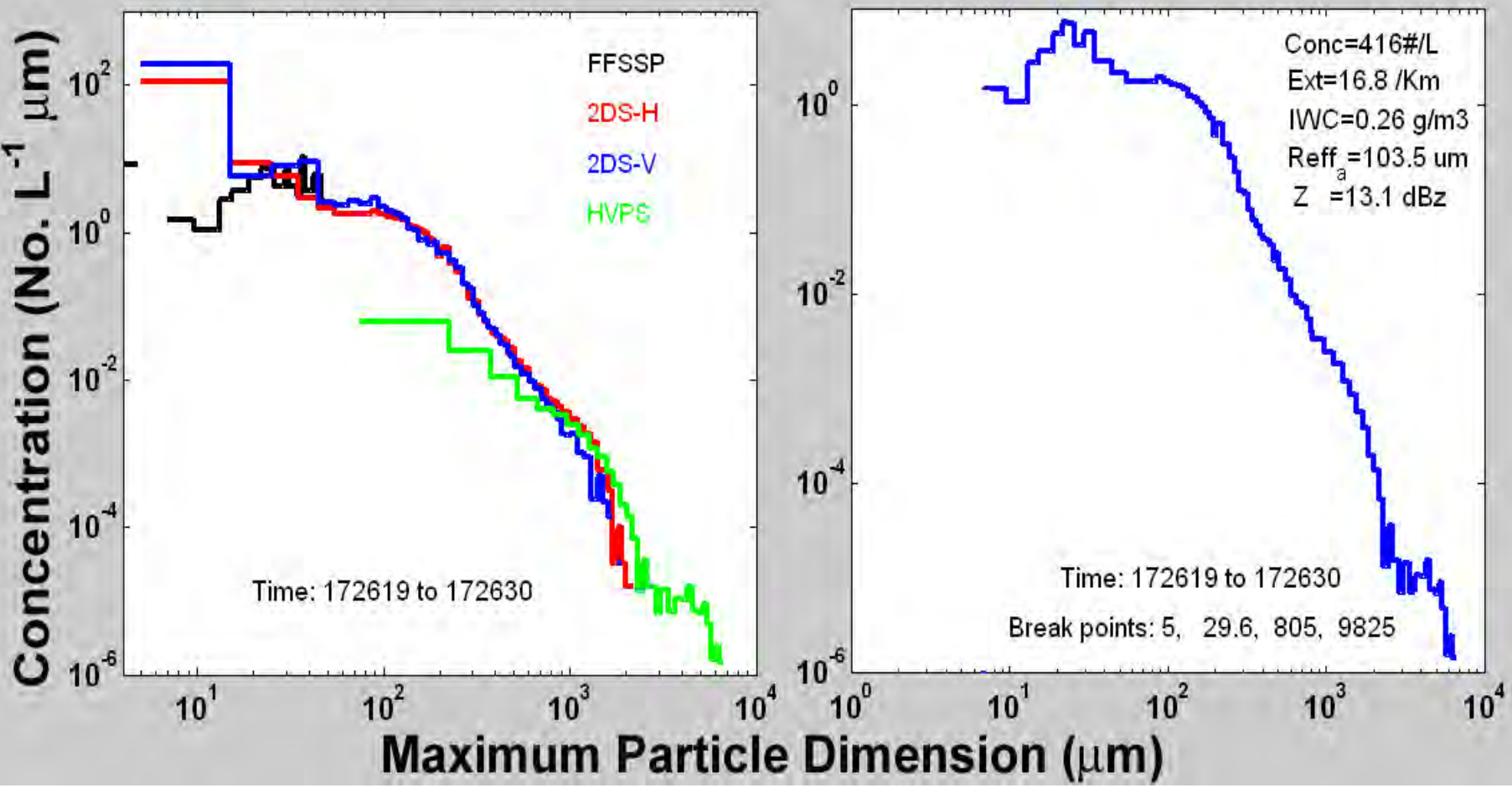
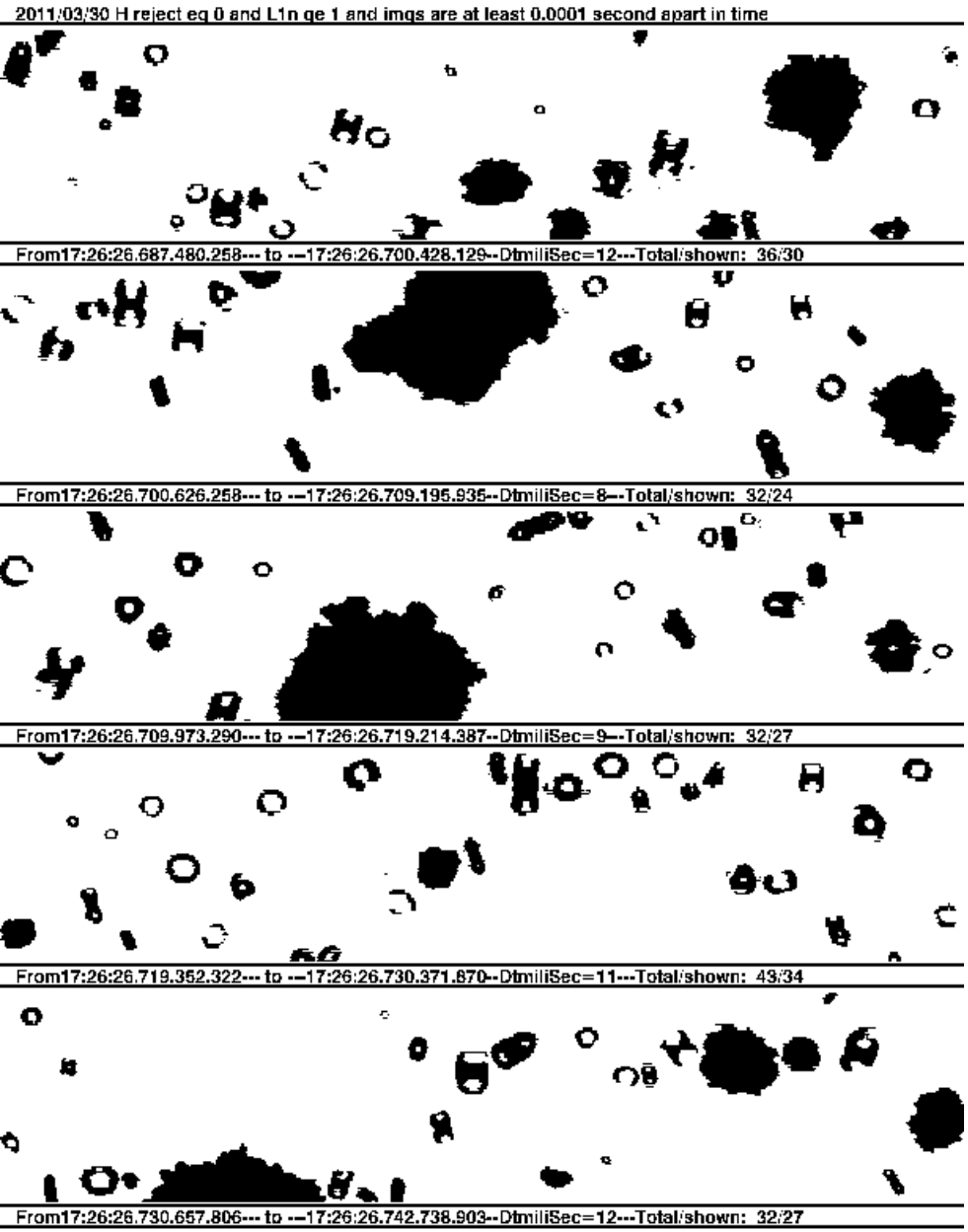
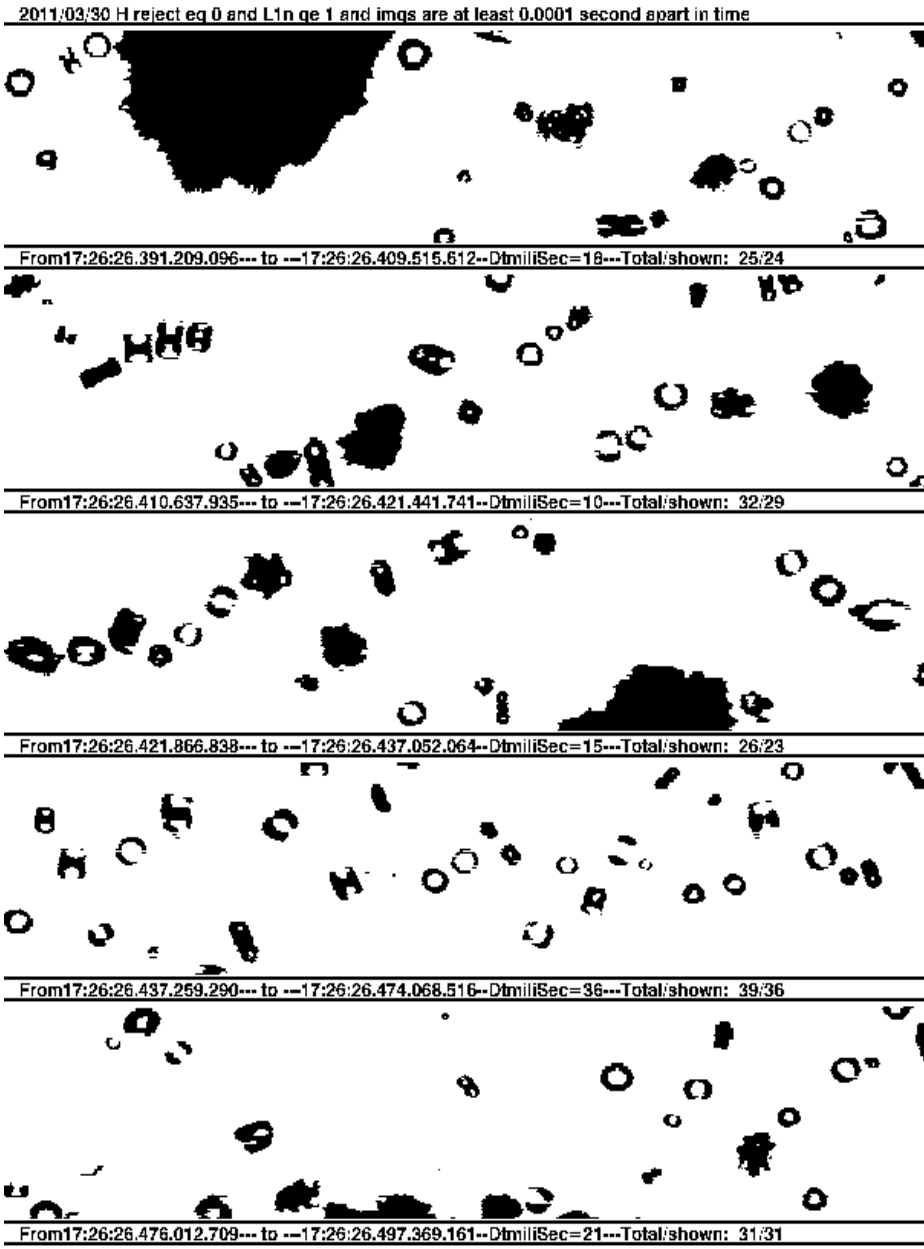
Individual and Composite Size Distributions in SLWC Region



2D-S Images of Supercooled Drops in Turret Updraft



Individual and Composite Size Distributions in Large Ice Region



2D-S Images of Ice Particles in the Old Cloud Region