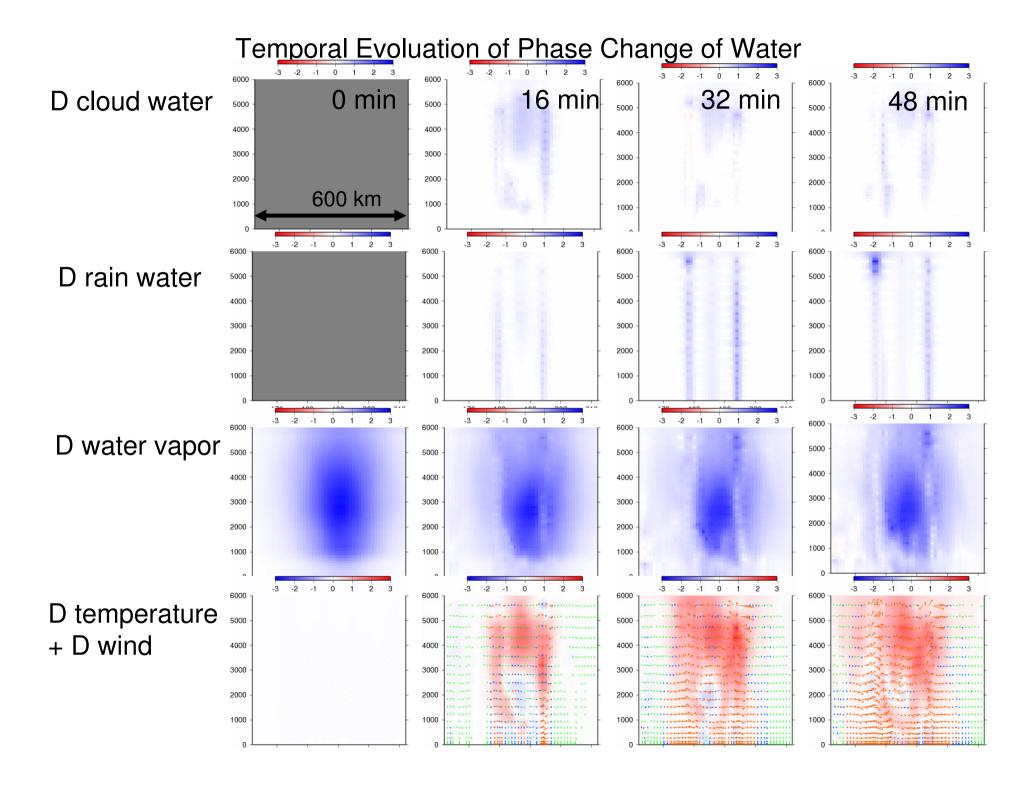
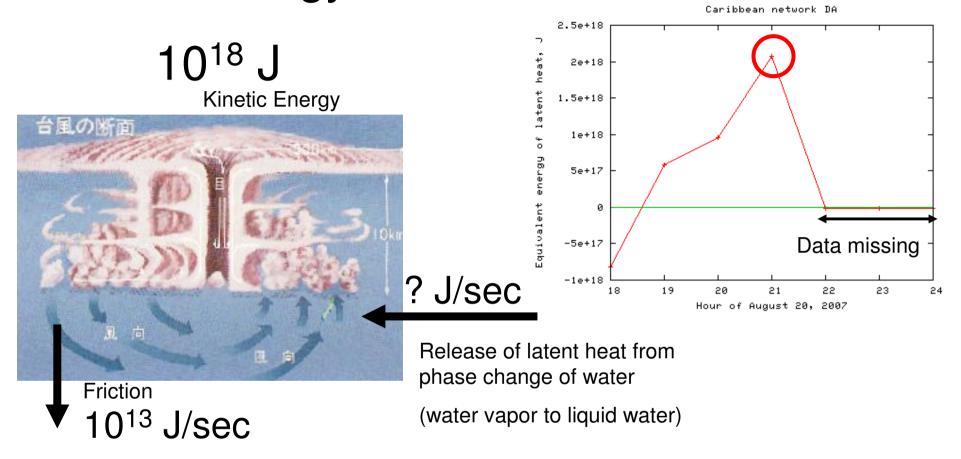
GNSS Meteorology

Dean Forecast Cycling PWV DA Control 2007-08-20_00 Cycling PWV DA Control 970 980 9901000010020 2007-08-20_00 Cycling PWV DA Control 20 30 40 50 60,70 80 2007-08-20_00

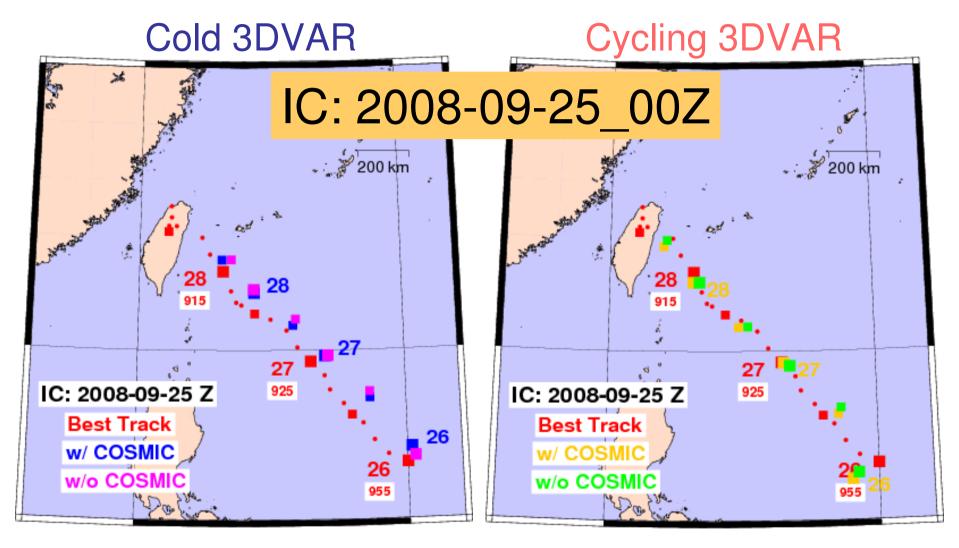


Energy Blance in Hurricane



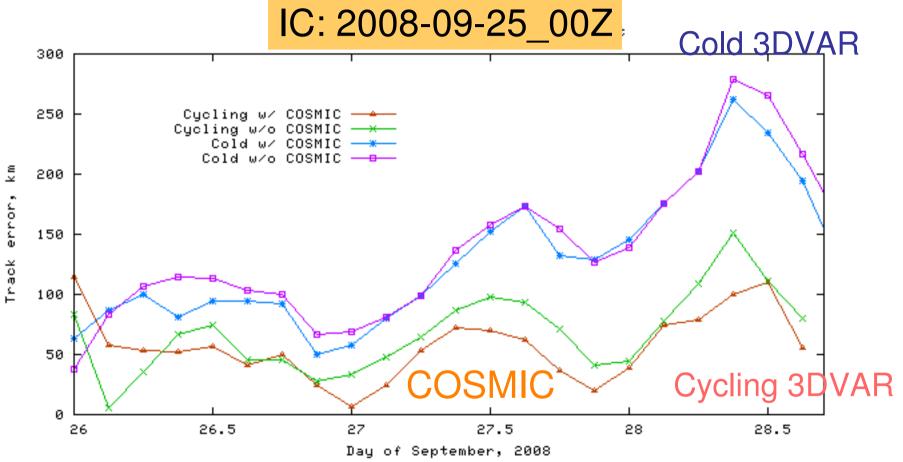
- 21:00 Jamaica station provides equivalent latent heat of 2.2 x 10¹⁸ J from positive increment of water vapor.
- M 8.5 earthquake: 3.6 x 10¹⁷ J
- Atomic bomb: 8.0 x 10¹³ J, Hydrogen bomb: 4.0 x 10¹⁶ J

Cold 3DVAR vs Cycling 3DVAR



 Significant improvement for track forecast in cycling 3DVAR

Track Forecast Errors



- Cycling 3DVAR forecast is much better than cold 3DVAR forecast
- Forecast with COSMIC profile is better than