



## ② Ground Validation of GPM (OLYMPEX) and instrument definition for ACE (RADEX'15)

In general airborne cloud and precipitation radars offer a **high resolution, very localized** view.

- Developed and/or deployed by various research groups for specific scientific purposes either in **conjunction** or **complementing** ground assets.



### GPM – GV Post-Launch in the Field 2

**Nov 2015 – Jan 2016**

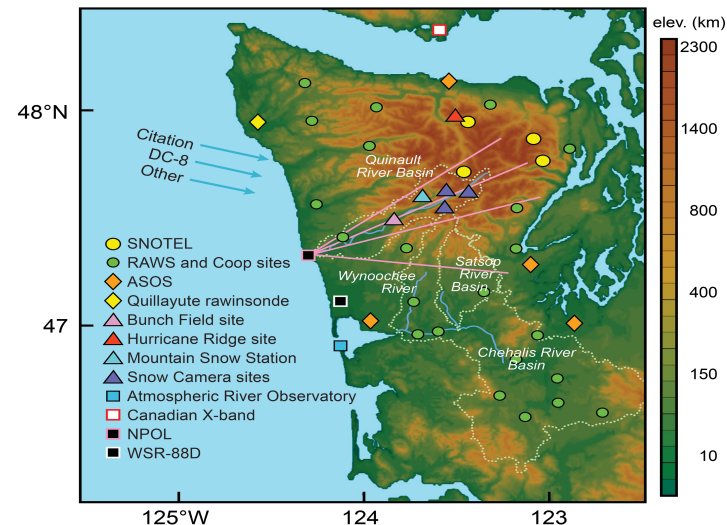
**OLYMPEX: *Olympic Mountains Experiment in the Pacific NW***

### Science Goals:

- Physical Validation of GPM Precipitation Algorithms (rain and snow) for GMI and DPR
- Midlatitude frontal systems and modification by complex terrain
- Merged numerical model and satellite observations
- Test hydrological applications

### Instrumentation:

- Surface: Special Rain gauge networks on Quinault and Chehalis, SNOTEL, Time-Lapse Photography, Disdrometers (Parsivel, 2DVD), hot plates, Pluvios
- Radars: WSR-88D, NPOL, D3R, MMR, X and W-band from Canada, Potential Radars: C, DOW, Atmospheric River Obs, and others.
- Aircraft: DC-8 (**ed: with APR-3**), UND Citation, ER-2 (ACE/RADEX). Other potential aircrafts: Canadian NRC C580, DOE G-1



*Courtesy Lynn McMurdie (UW)*

<http://olympex.atmos.washington.edu>

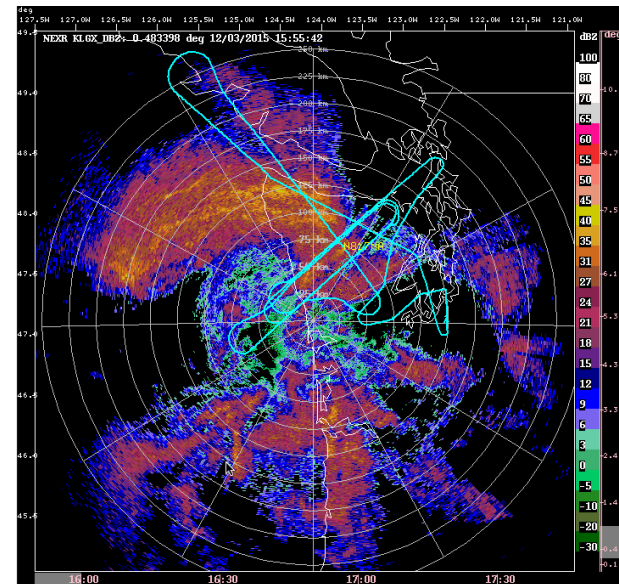
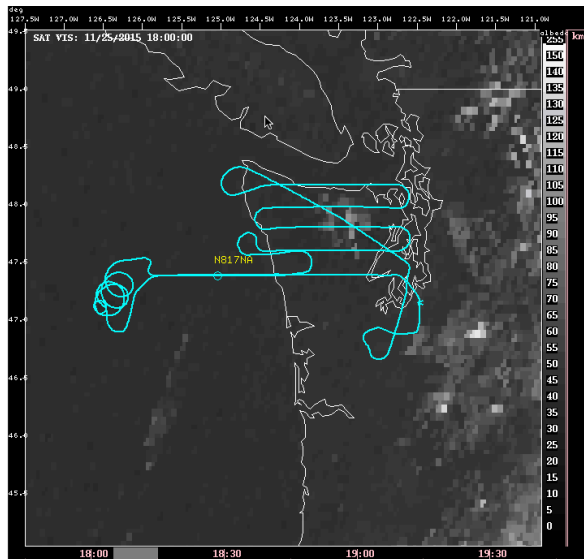
Some notable DC-8/ER-2 flight dates

Nov 12-13-14: Atmospheric river event

Nov 23-24-25: Nov 25 was a clear-sky day with lawn mower pattern over Olympics, then a spiral over ocean

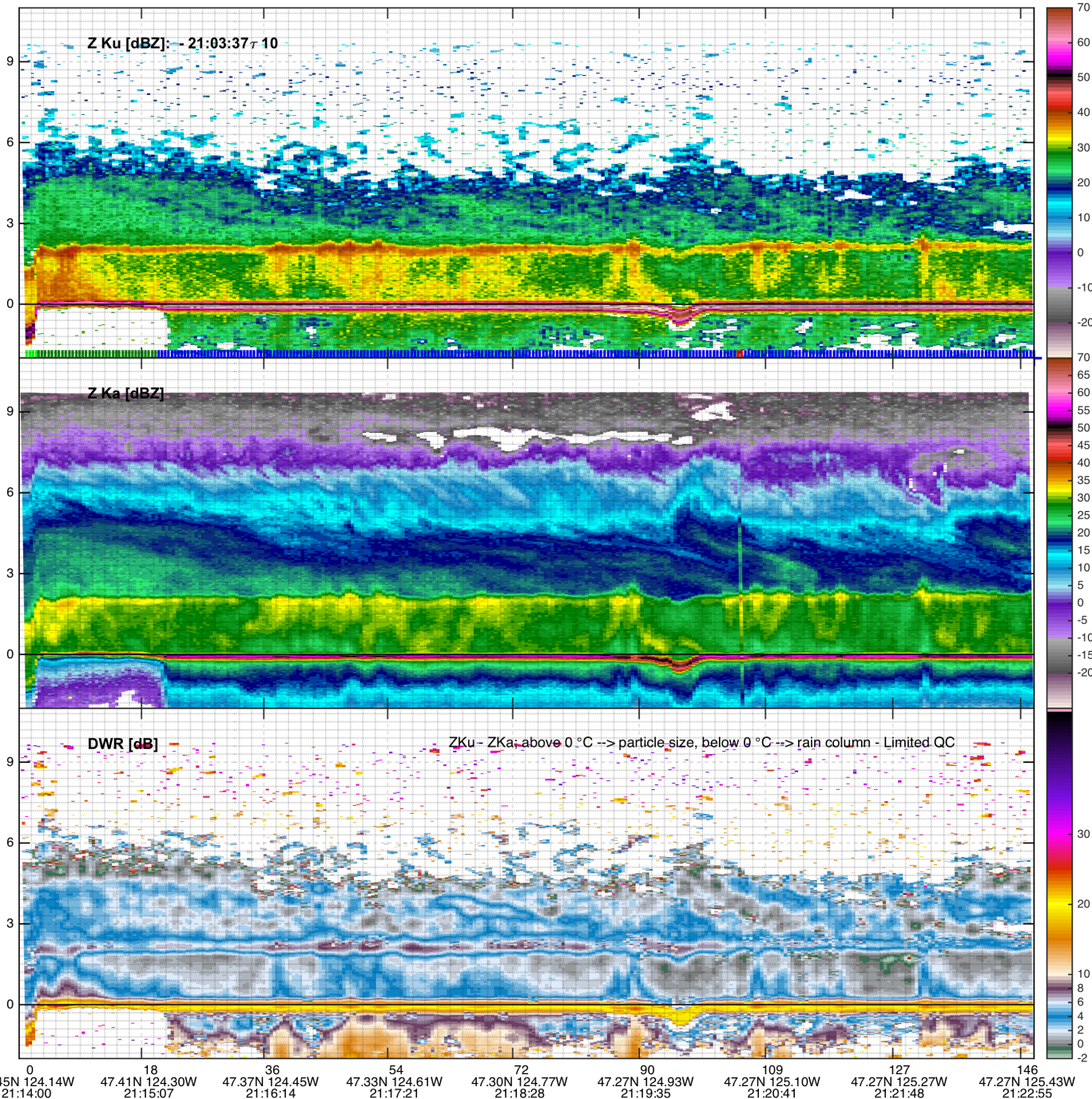
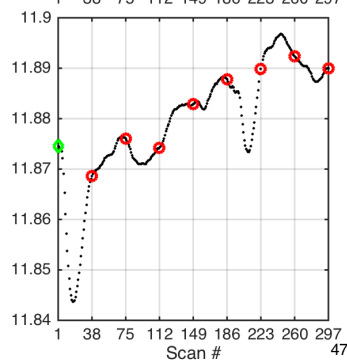
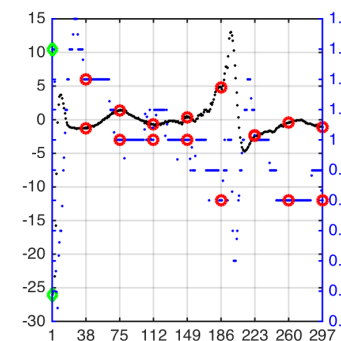
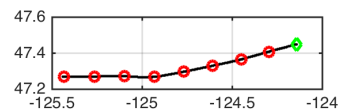
Dec 3-4-5: Pre/Postfrontal flights, GPM underflight on 12/3

11/25  
DC-8



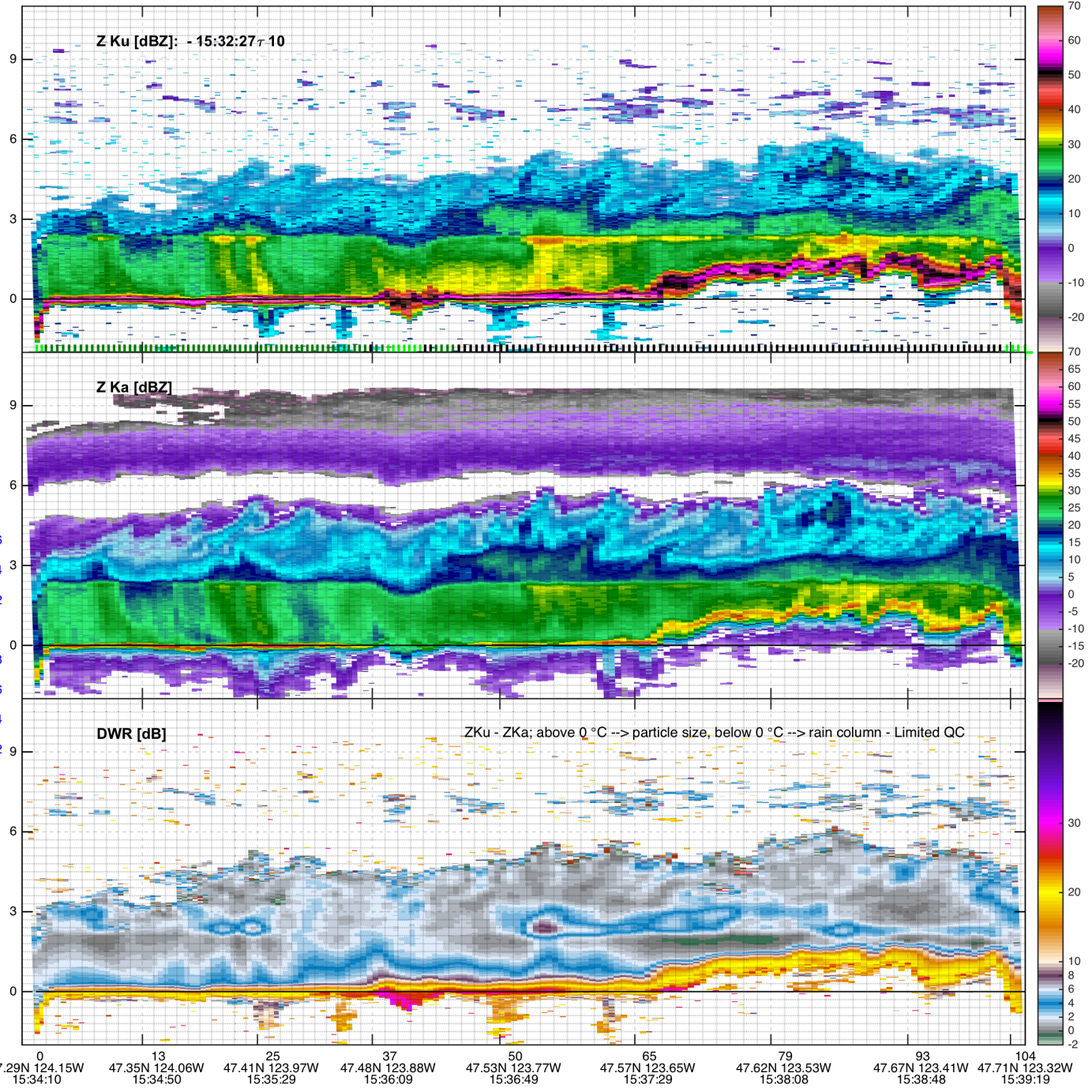
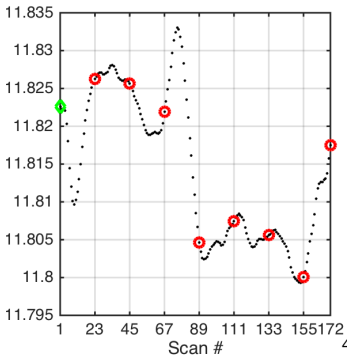
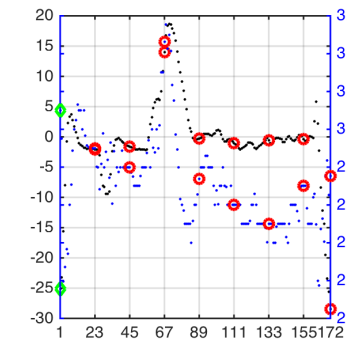
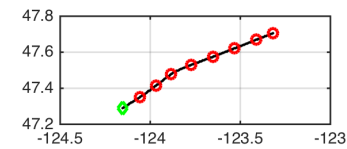
12/03  
(with  
ER-2 and  
Citation)

12 Nov 2015  
2114-2123 UTC





13 Nov 2015  
1534-1539 UTC





14 Nov 2015  
1744-1750 UTC

