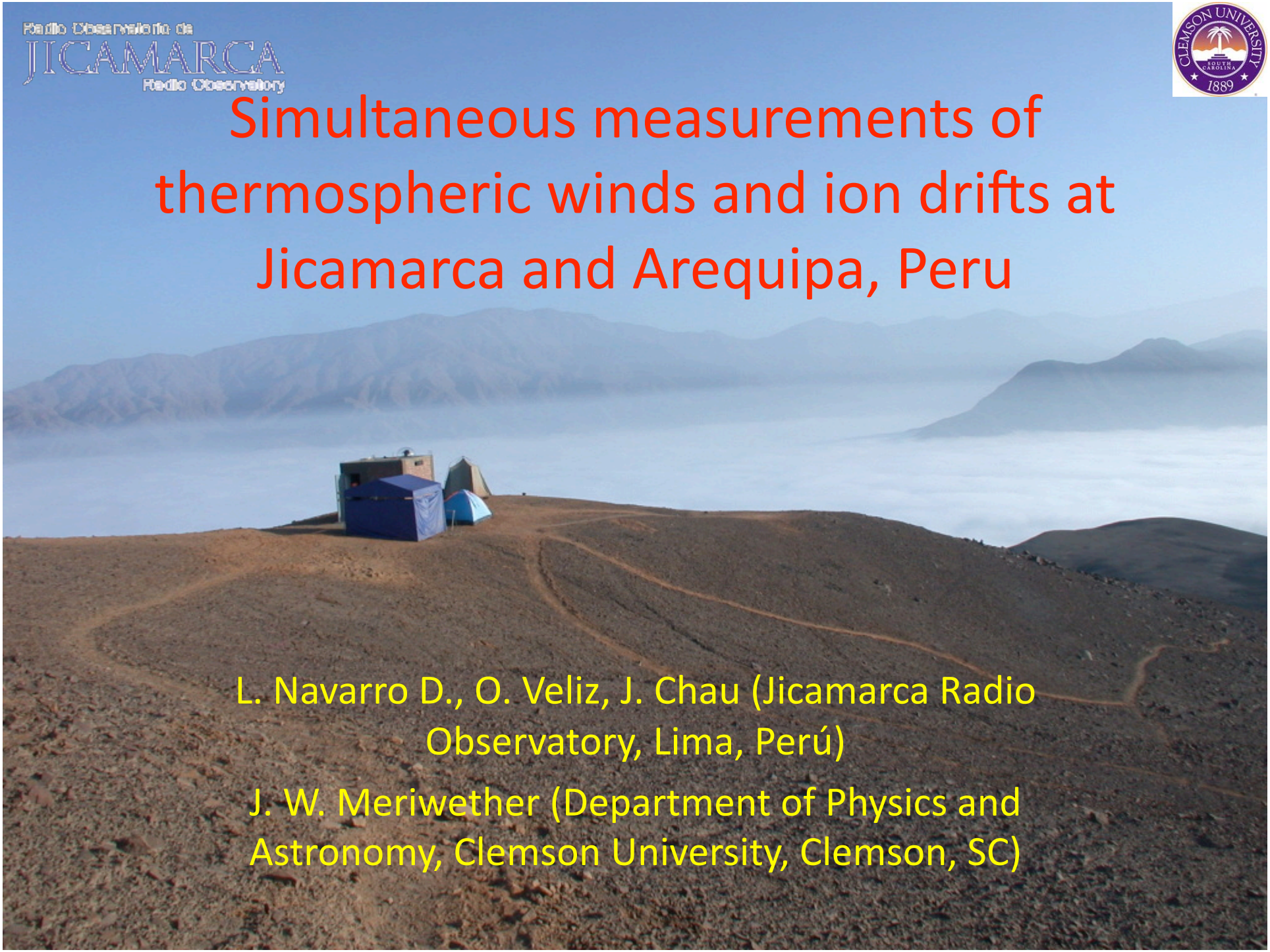


Simultaneous measurements of thermospheric winds and ion drifts at Jicamarca and Arequipa, Peru

L. Navarro D., O. Veliz, J. Chau (Jicamarca Radio Observatory, Lima, Perú)

J. W. Meriwether (Department of Physics and Astronomy, Clemson University, Clemson, SC)

Science goals

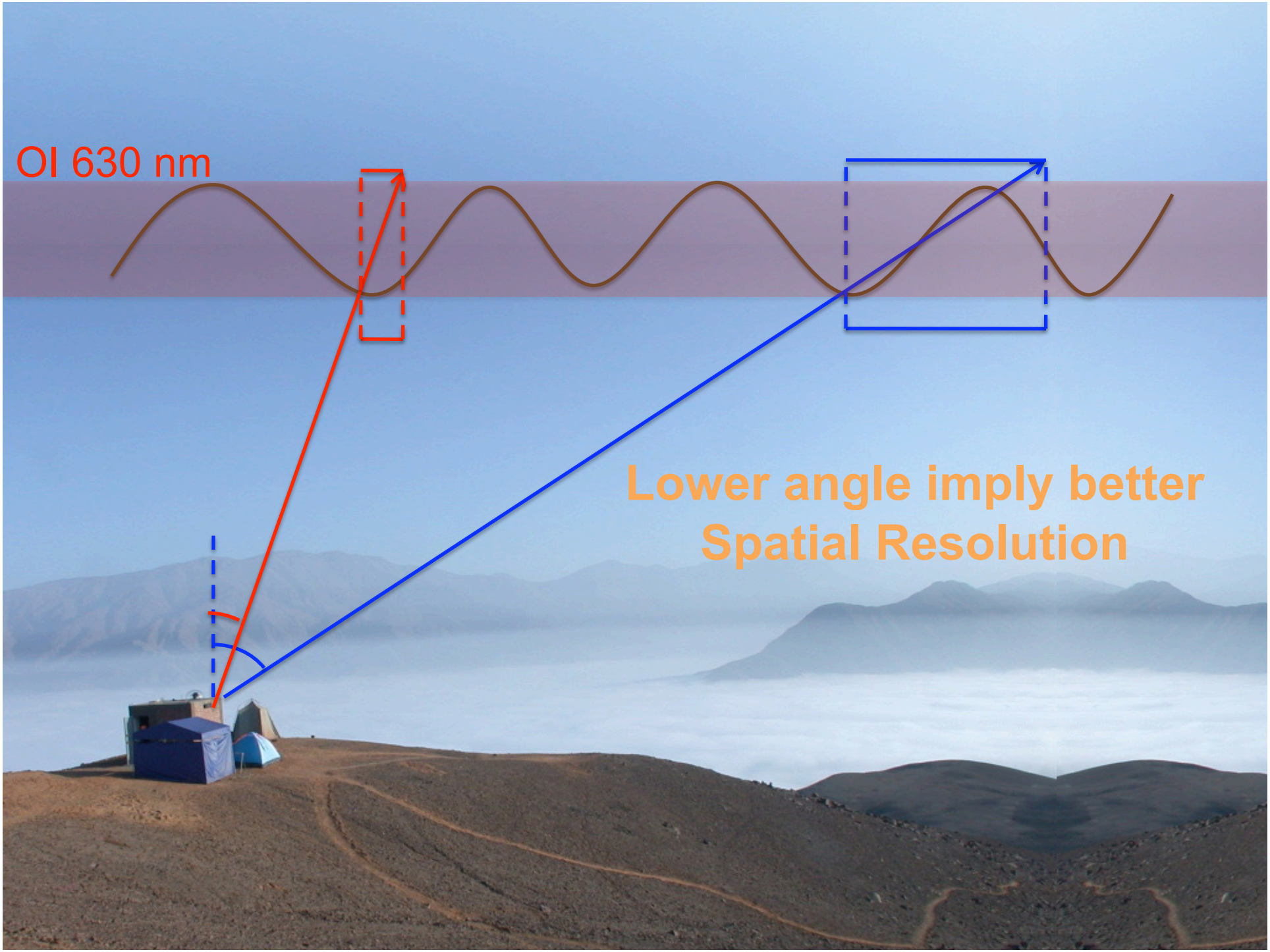
- Measure Gravity Wave activity to study possible relationship of ESF onset to GW events
- ISR-FPI observations-> study F-region dynamo and its relationship to ion-neutral coupling

FPI in Peru

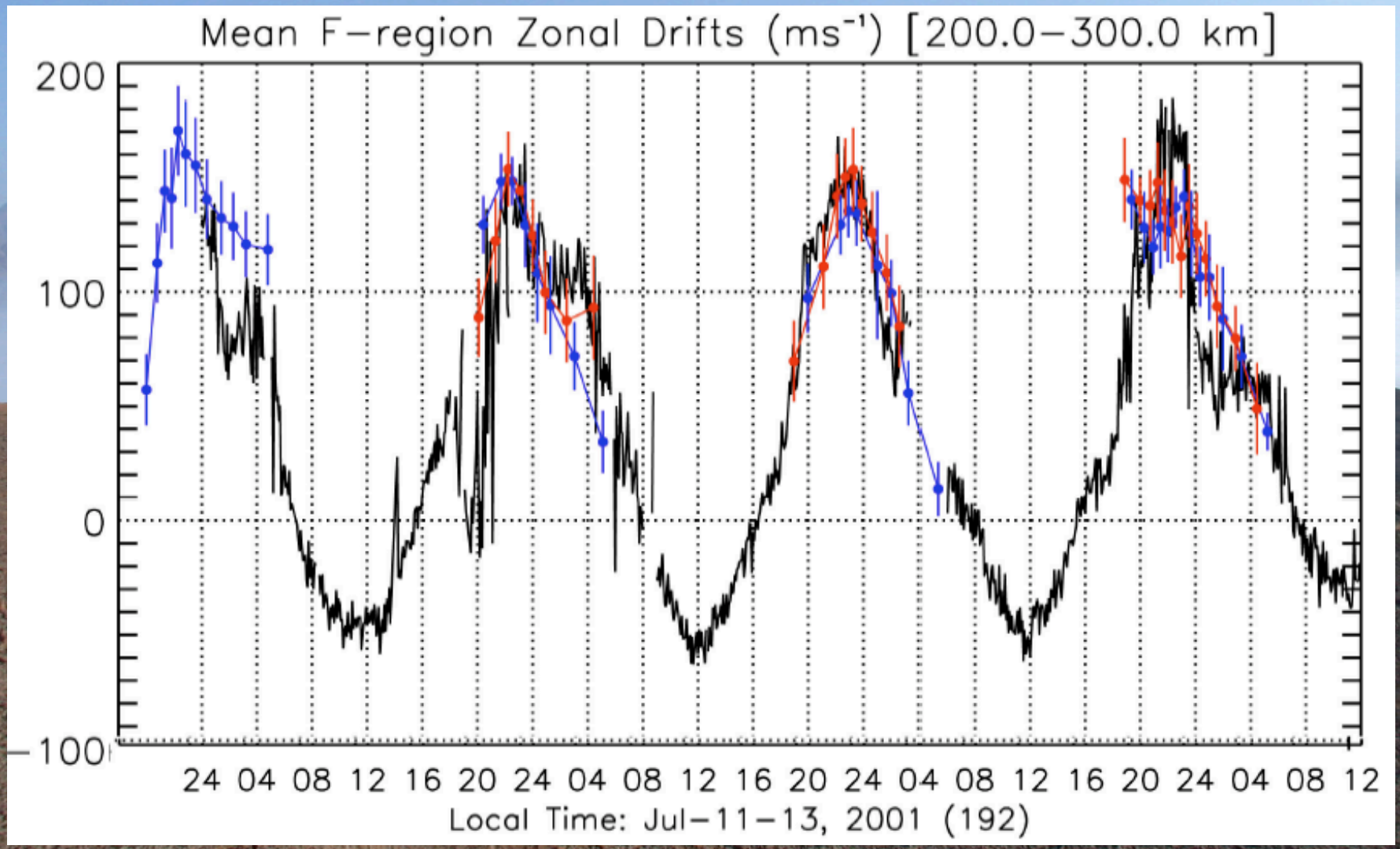
Zenith inclination:
45deg: 247km
(CV range)

Zenith inclination:
60deg: 431km
(Maximum range)

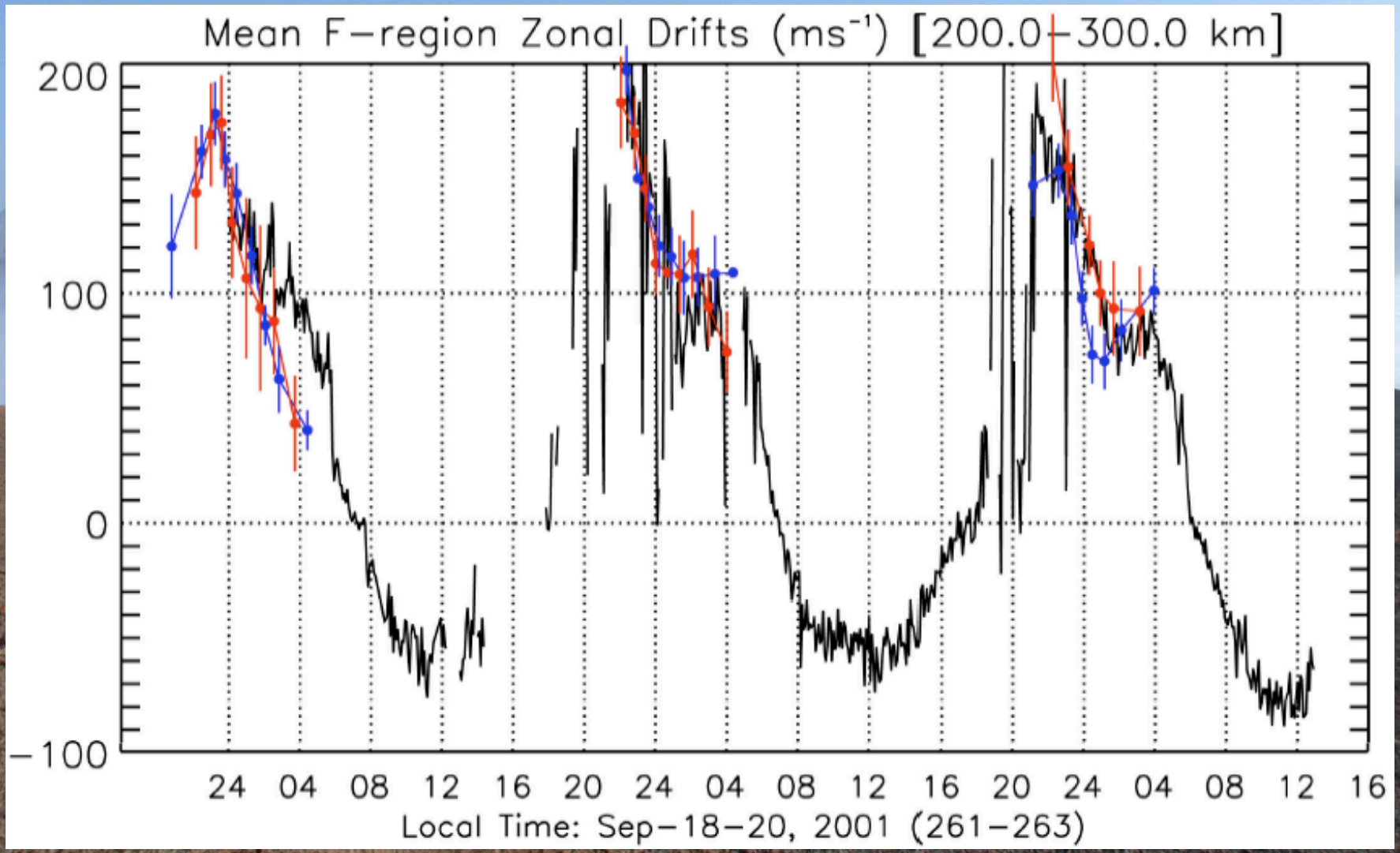
Zenith inclination:
30deg: 144km


OI 630 nm
Lower angle imply better
Spatial Resolution

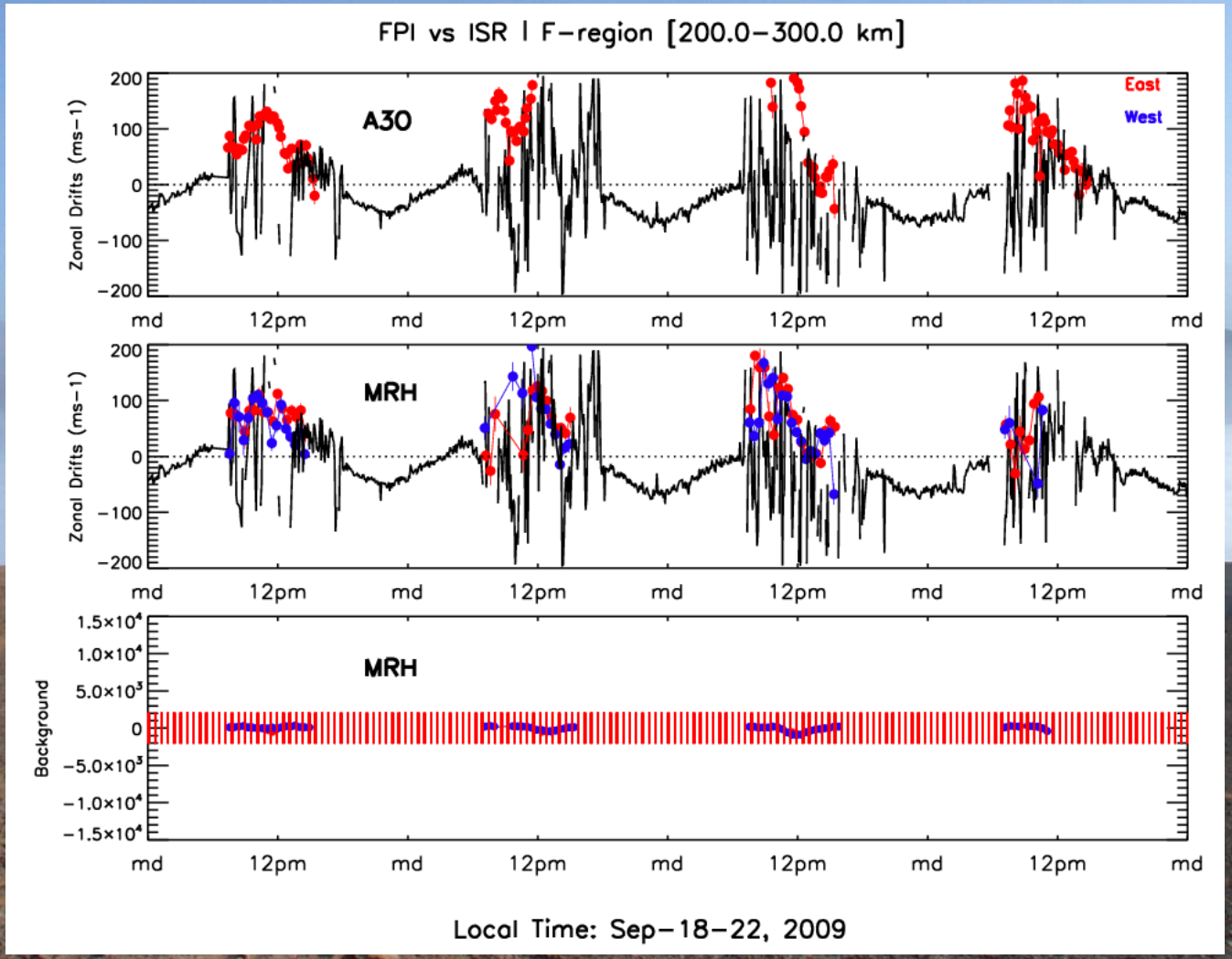
Campaign 11-13 Jul 2001



Campaign 18-20 Sep 2001



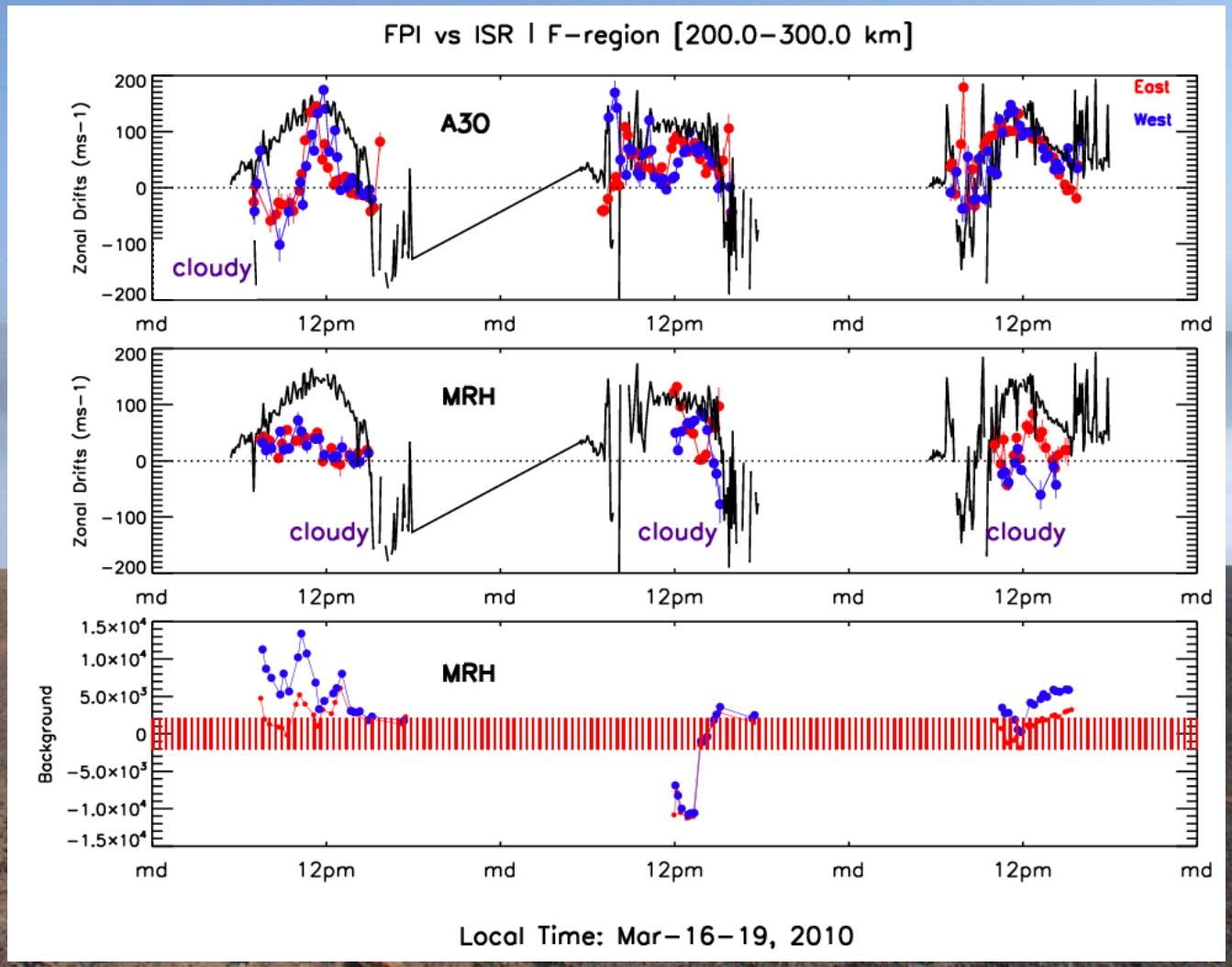
Campaign 19-22 Sep 2009



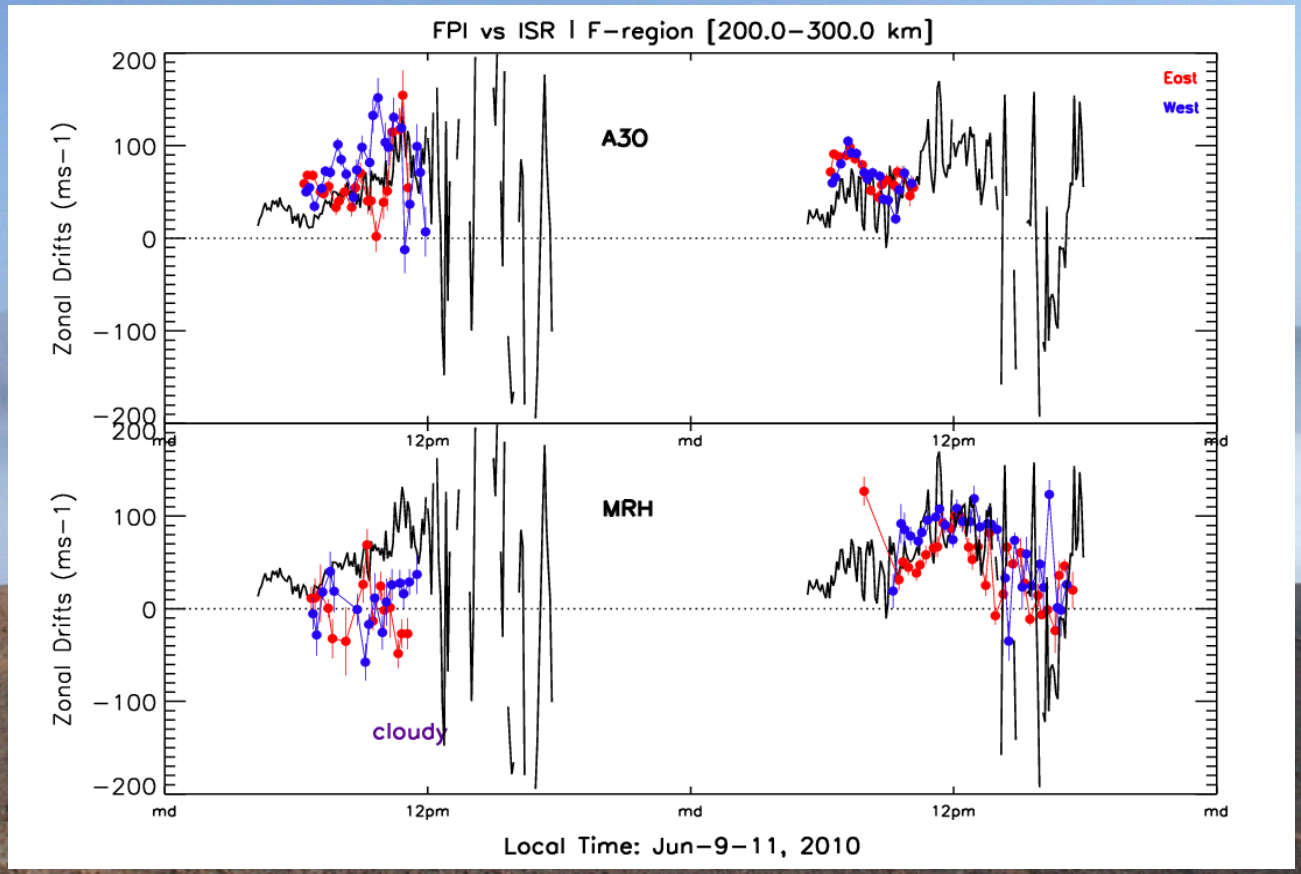
MRH data quality test:

- **Environmental task (Clouds)-> Background test**
- **Mechanical errors (SkyScanner system)-> Maintenance program**

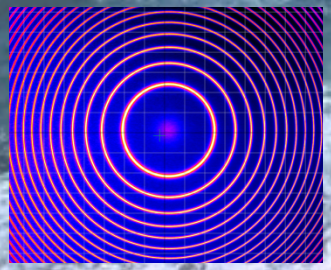
Campaign 18-22 Mar 2010

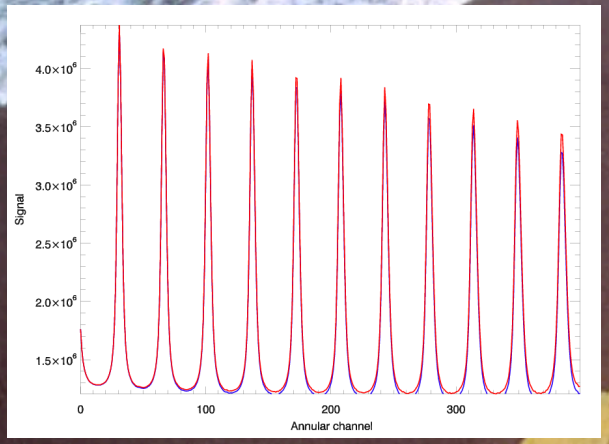


Campaign 9-11 Jun 2010



Future: Paracas GiantMiniME & SuperMRH





Conclusions

- **MRH neutral wind generally show good agreement with ISR plasma motion.**
- **Greater sensitivity for MRH is possible with simple optics modification.**
- **Background quality control is not enough to determine cloud cover effects – need imager**
- **Tentative schedule:**

MRH upgrade in August 2010

PRC FPI operational Sept 2010


Many thanks!