

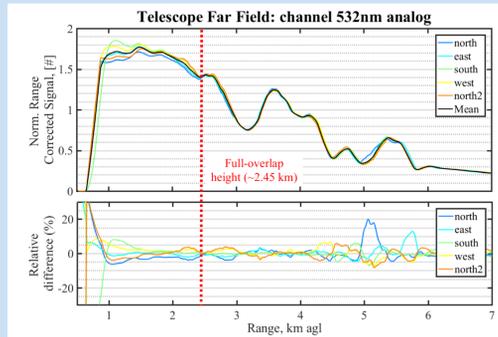
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## IPRAL System

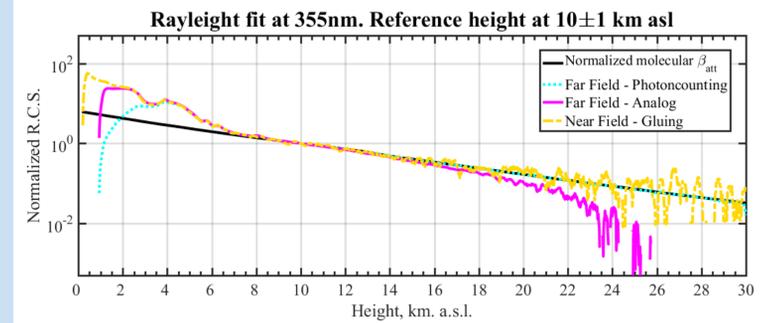


## IPRAL Quality Assurance

### Telecover check performed on 22/06/2017



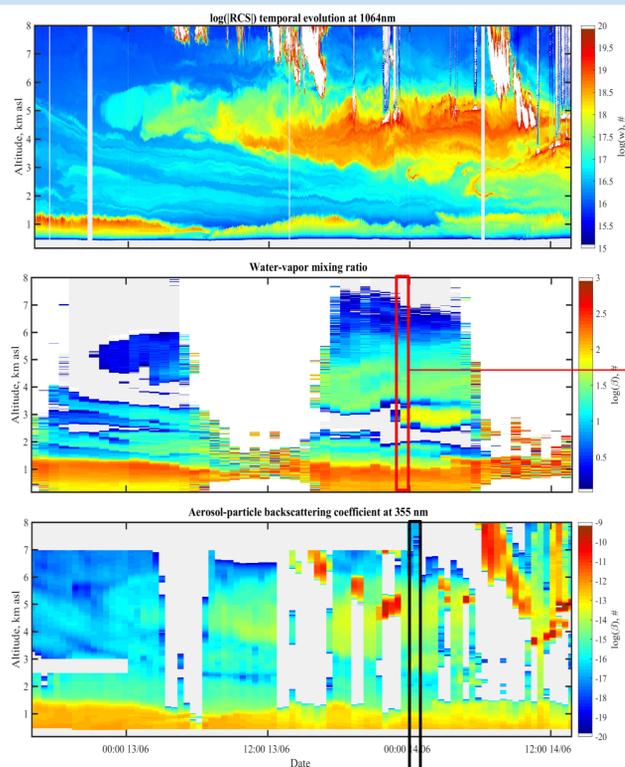
### Rayleigh fit



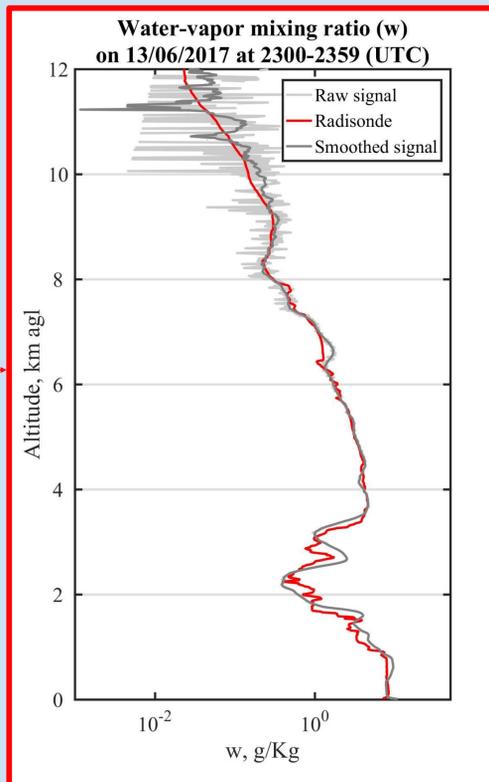
- Far-field telescope 4 quadrant consistency is better than 5% for altitudes greater than 1.5 km.
- Far-field and near-field signals are consistent at altitudes greater than 2 km.
- Far Field analog & photoncounting channels follow Rayleigh signal until 15 & 30 km respectively.
- Gluing Near Field analog and photoncounting channels is successful following molecular trend until 20 km.

## Raman and Klett Inversion

### Dust case 12 to 14 June 2017

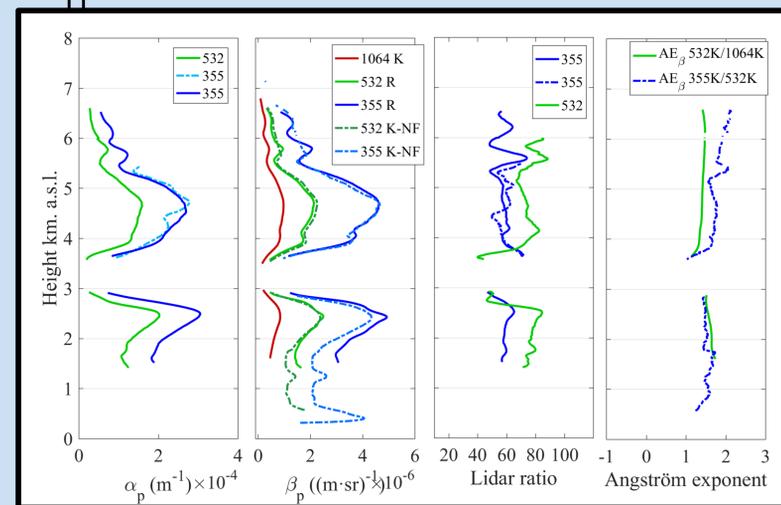
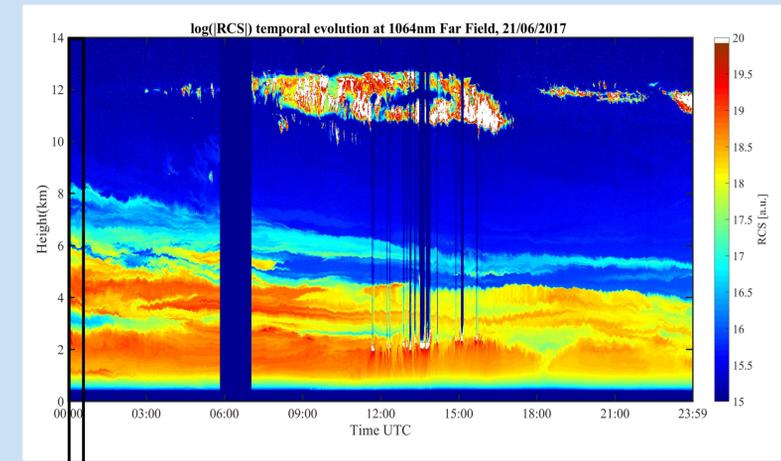


### Water vapour mixing ratio



↑ Good consistency with radiosonde profiles until 10 km or about 0.1 g/kg

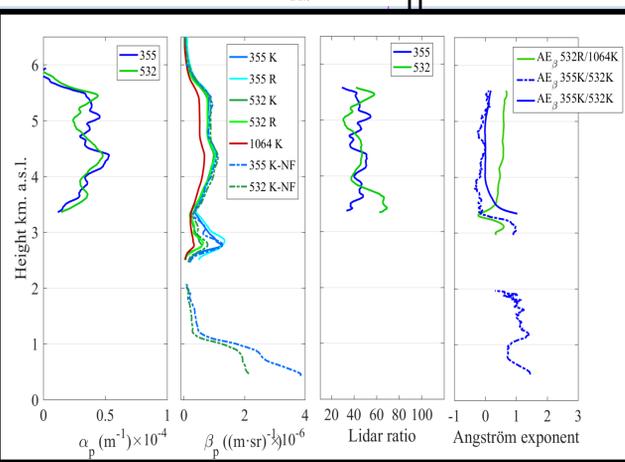
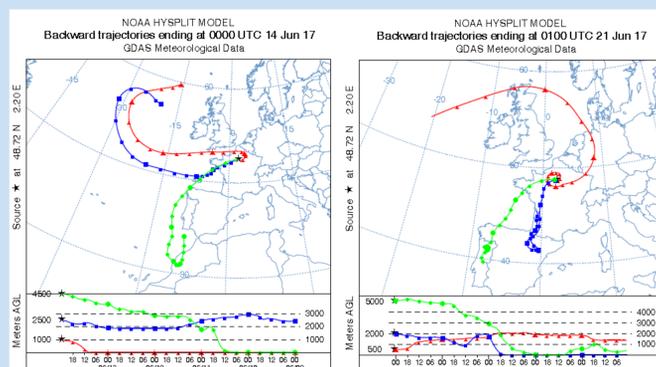
### Biomass Burning aerosols 21/06/2017



↑ Retrieved intensive aerosol properties (LR355~60sr & LR532~75sr, AE~1.5) in the layer between and 5 km are in agreement with the literature values of Biomass burning aerosols

← Backward trajectories indicate that the origin of the air masses came from Saharan desert and central of Portugal where FIRMS locates forest fires

### Hysplit Back Trajectories



↑ Retrieved intensive aerosol properties (LR~40sr & AE~0) in the lofted layer are in agreement with the literature values of Saharan dust

## ACKNOWLEDGMENTS

We wish to thank the ACTRIS-EU & ACTRIS-FR community