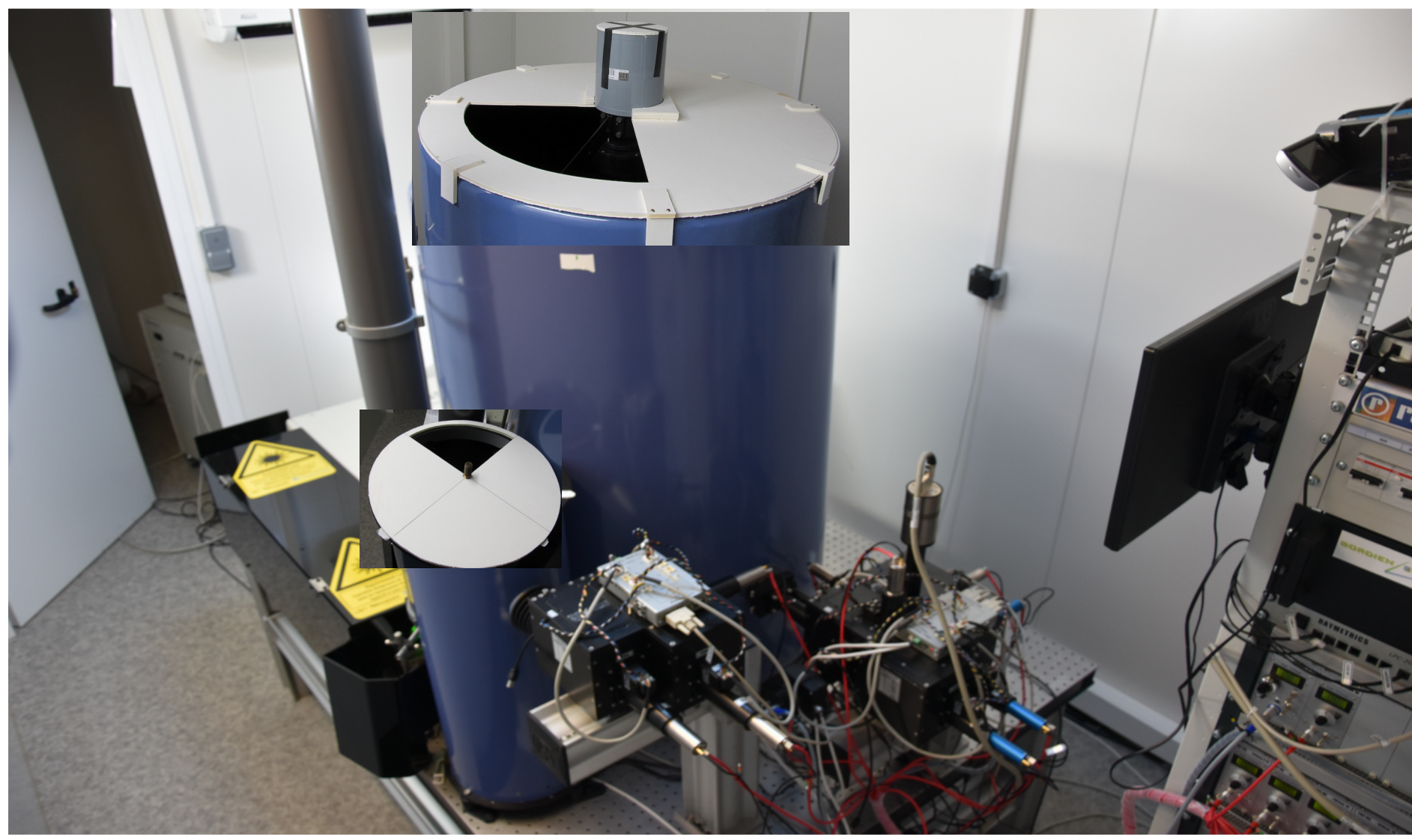


IPRAL System



IPRAL Automatic monitoring and Quality Assurance

Electronic Notebook to monitor all operational & System Maintenance



Experiments

Back to listing

2018.05.31 meteo: couvert

Maintenance IPRAL: Intervention spectra Ajout du cristal doubleur Type 1 + vérification de l'NRJ

9h: Arrivée de Cédric + FL + CP

1- Début du contrôle du laser par spectra.

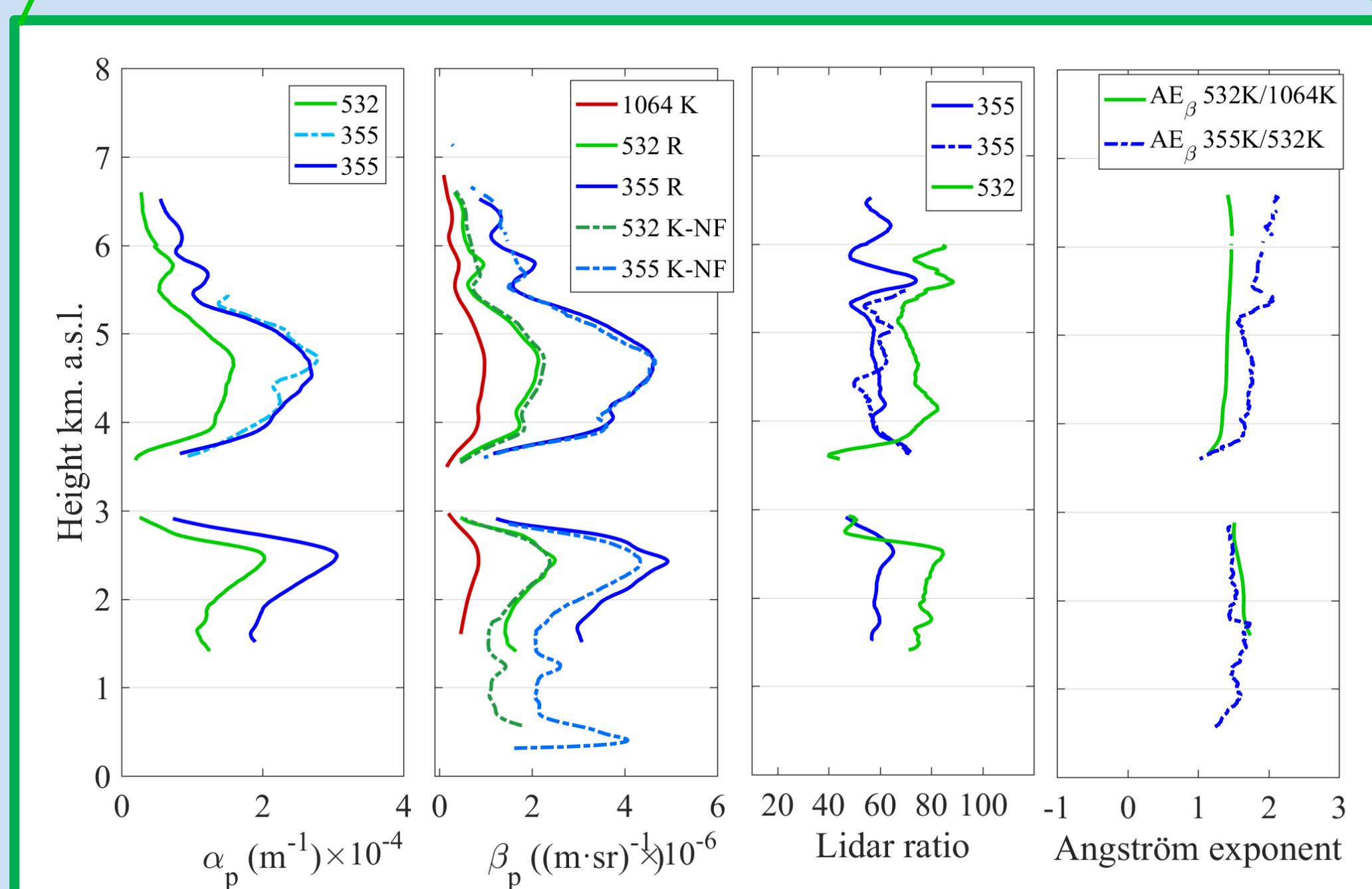
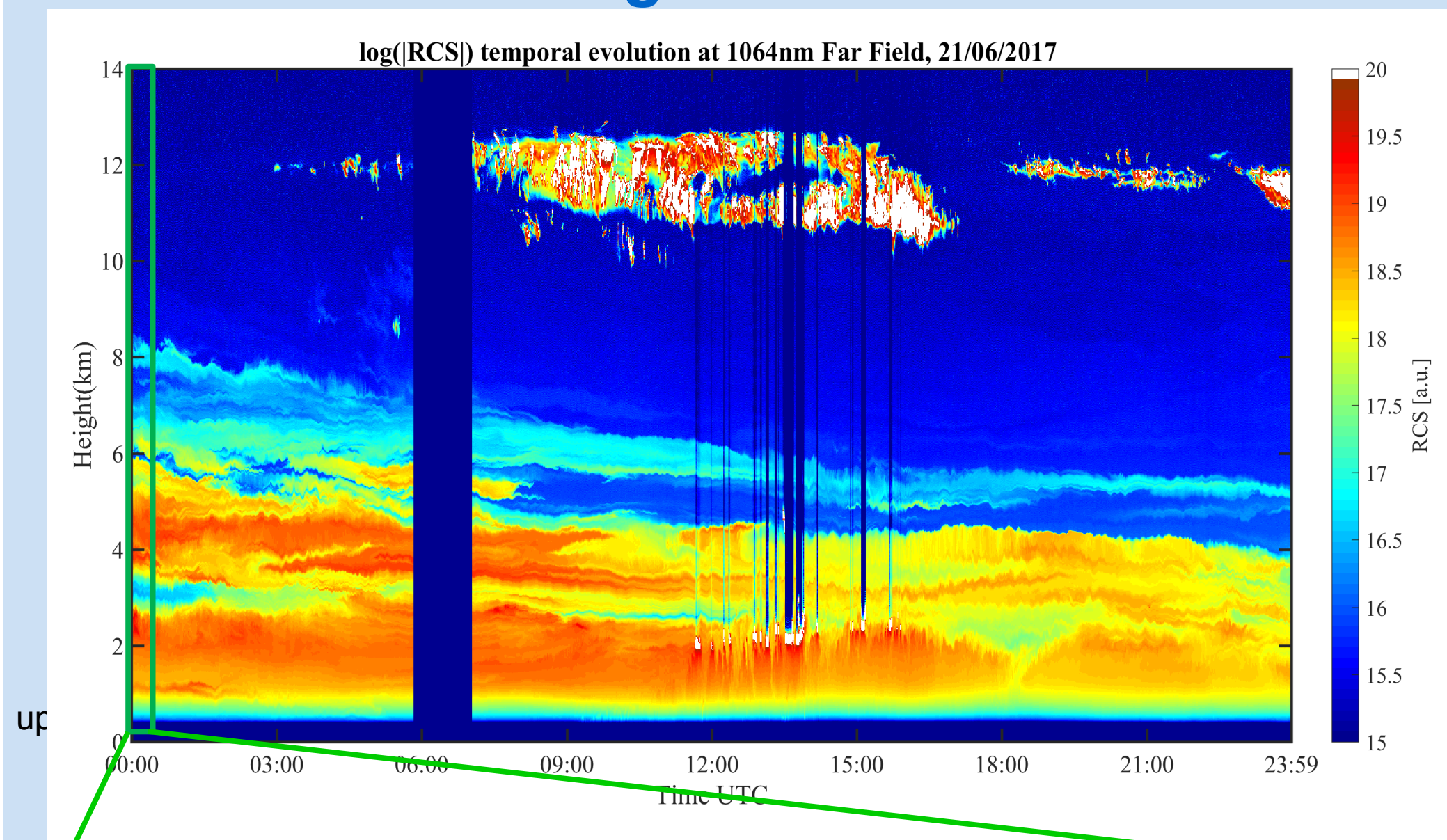
Constat effectif de la perte d'NRJ due à un déplacement du miroir de fond de cavité. Suspicion de problème de température. Florian a noté que le soleil donne à travers la trappe directement sur le laser et que cela peut être chaud. Ou alors ce sont les écarts de température entre la journée quand le laser fonctionne et la nuit avec une

INDRA & SCC algorithms

INDRA algorithm is developed and maintained by Granada university and supported by J.A. Bravo Aranda and Single Calculus Chain is developed by ACTRIS_EU Community maintained by Institute of Methodologies for Environmental Analysis, CNR, Italy and supported by Ioannis Binietoglou, Giuseppe D'Amico. Both algorithms are dedicated to retrieve atmospheric optical parameters from Lidar elastic and raman backscatter measurements.

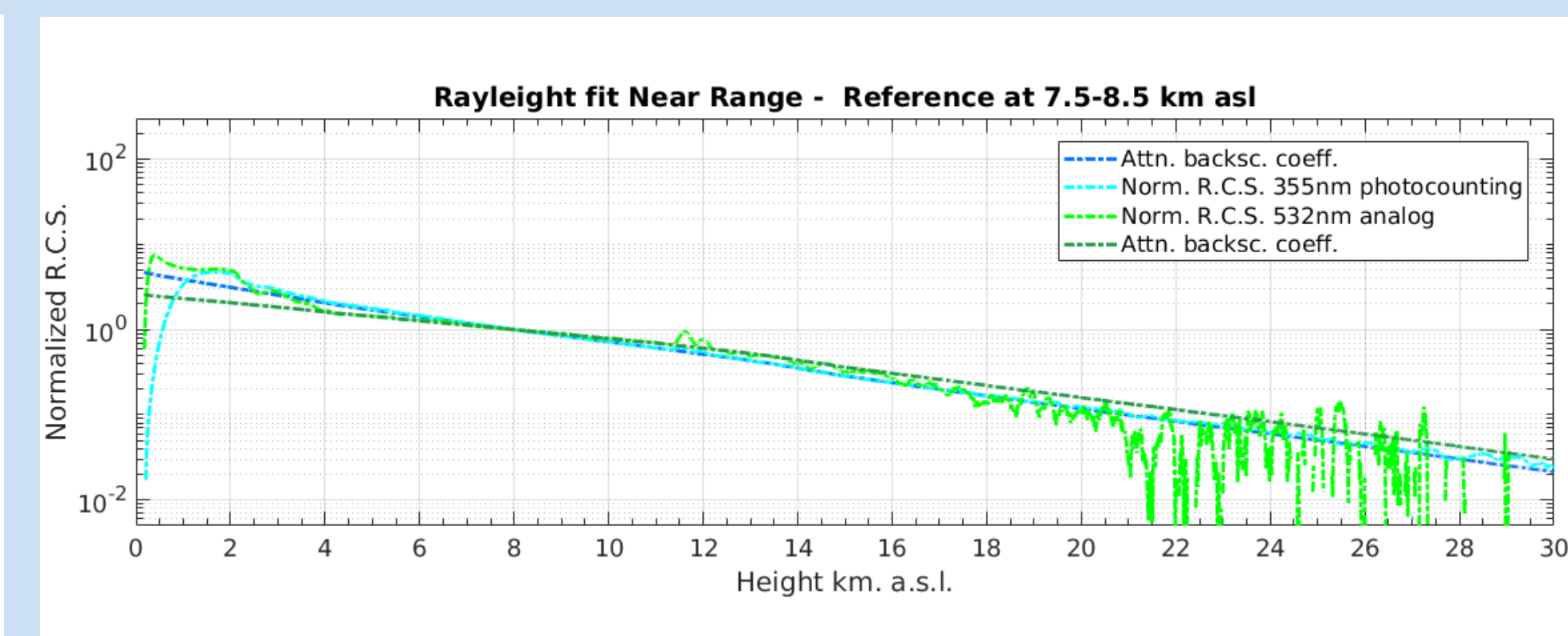
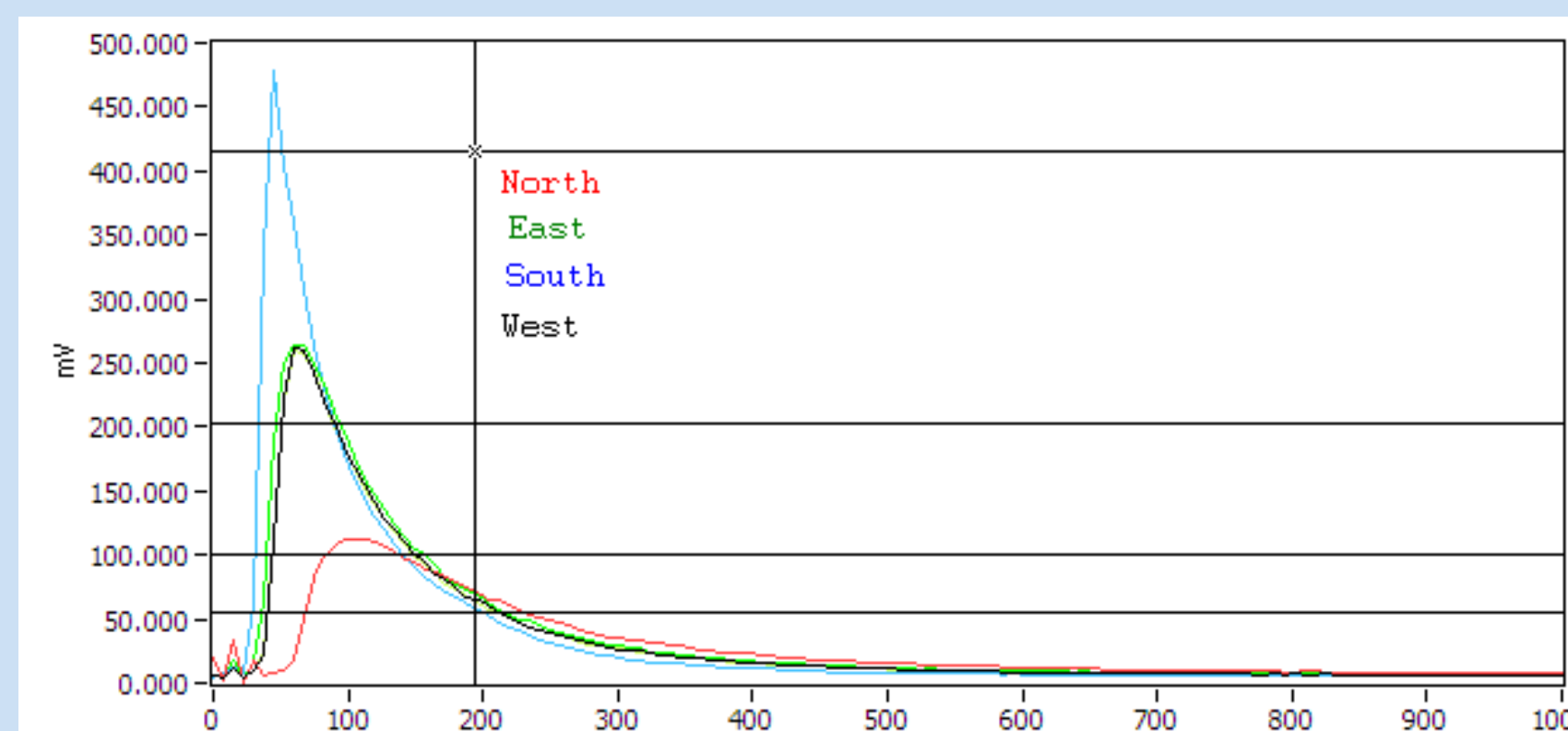
INDRA & SCC Retrievals Comparison: study case

Biomass Burning aerosols 21/06/2017



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

Telecover and Rayleigh fit evaluation

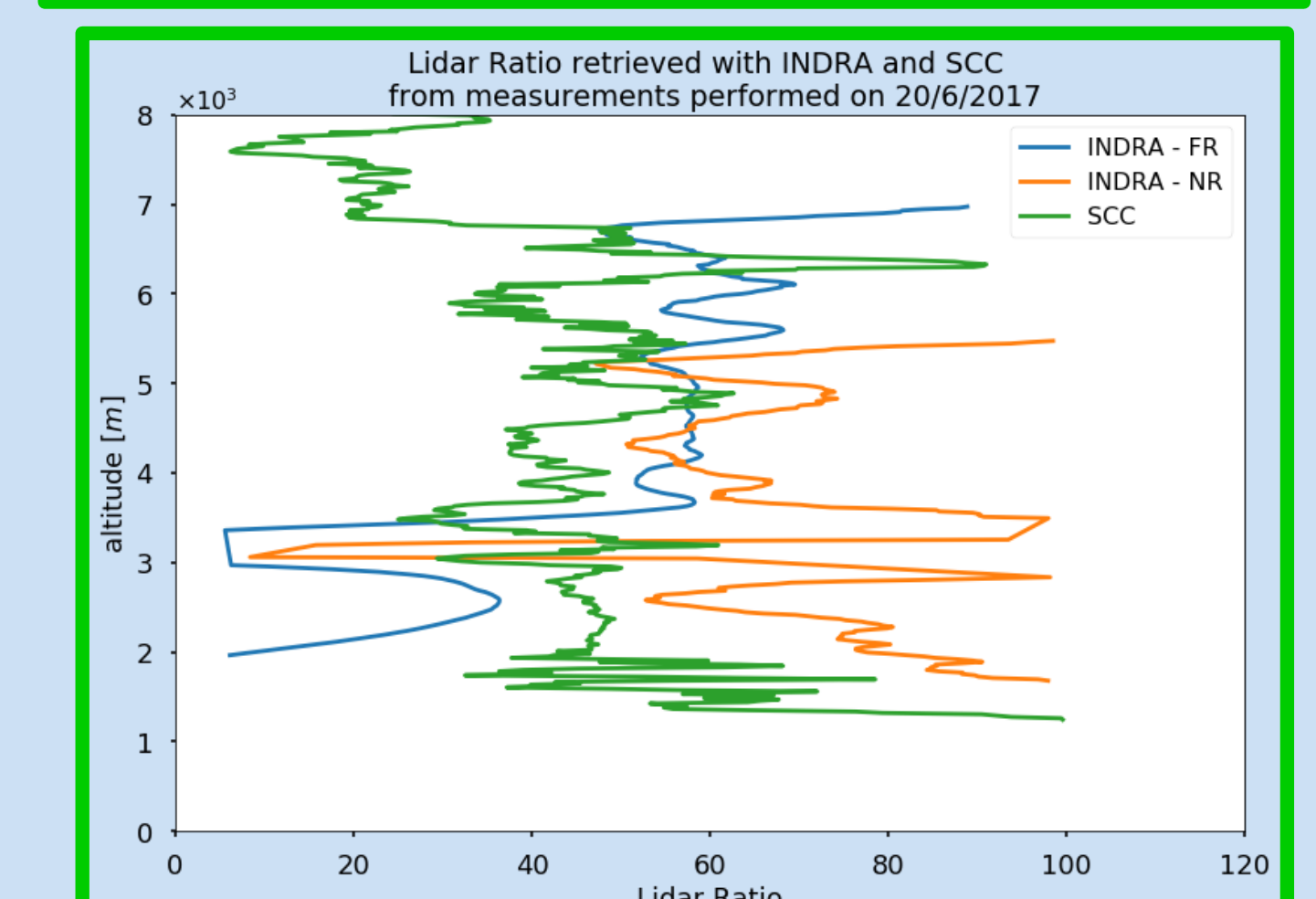
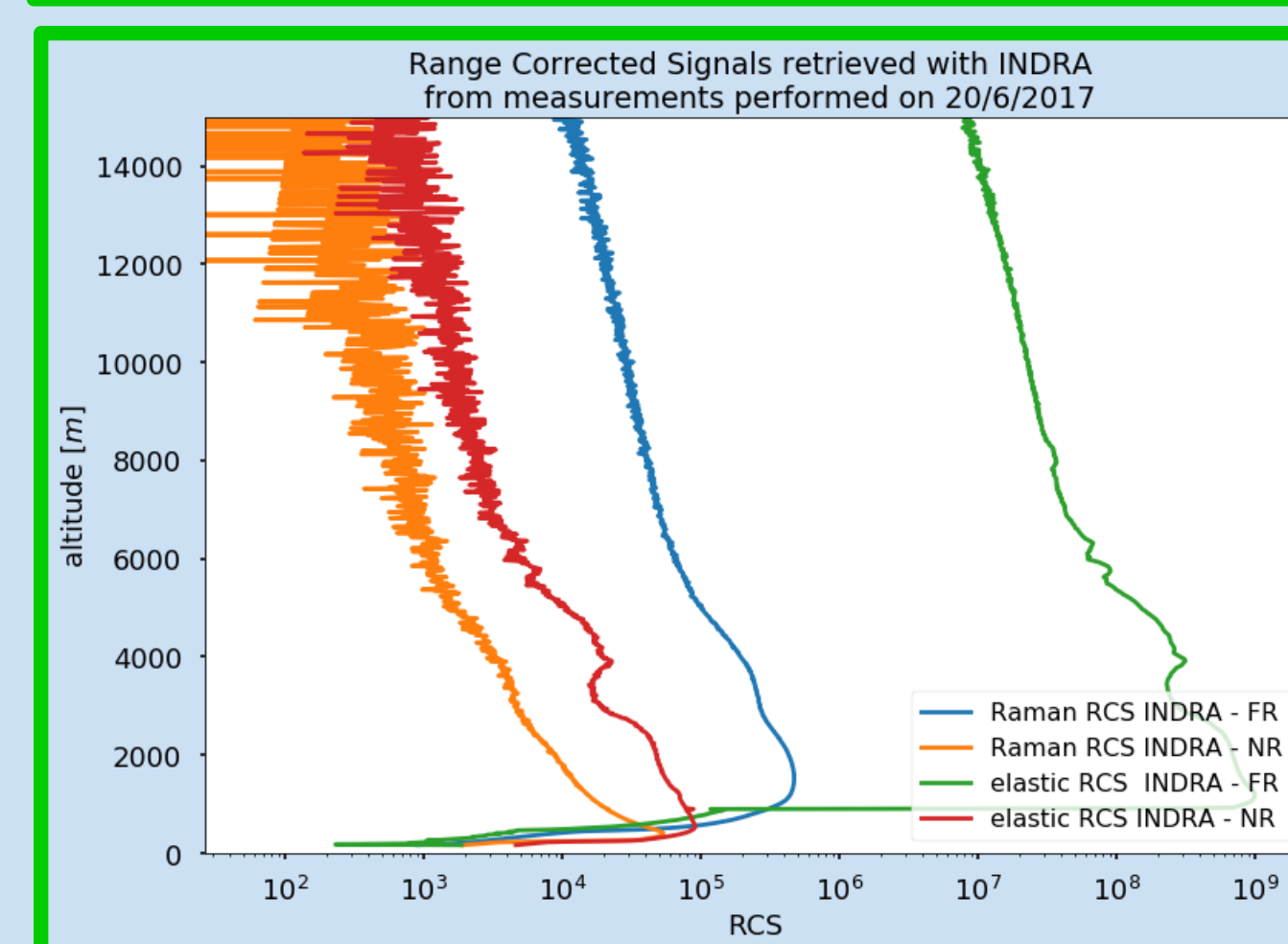
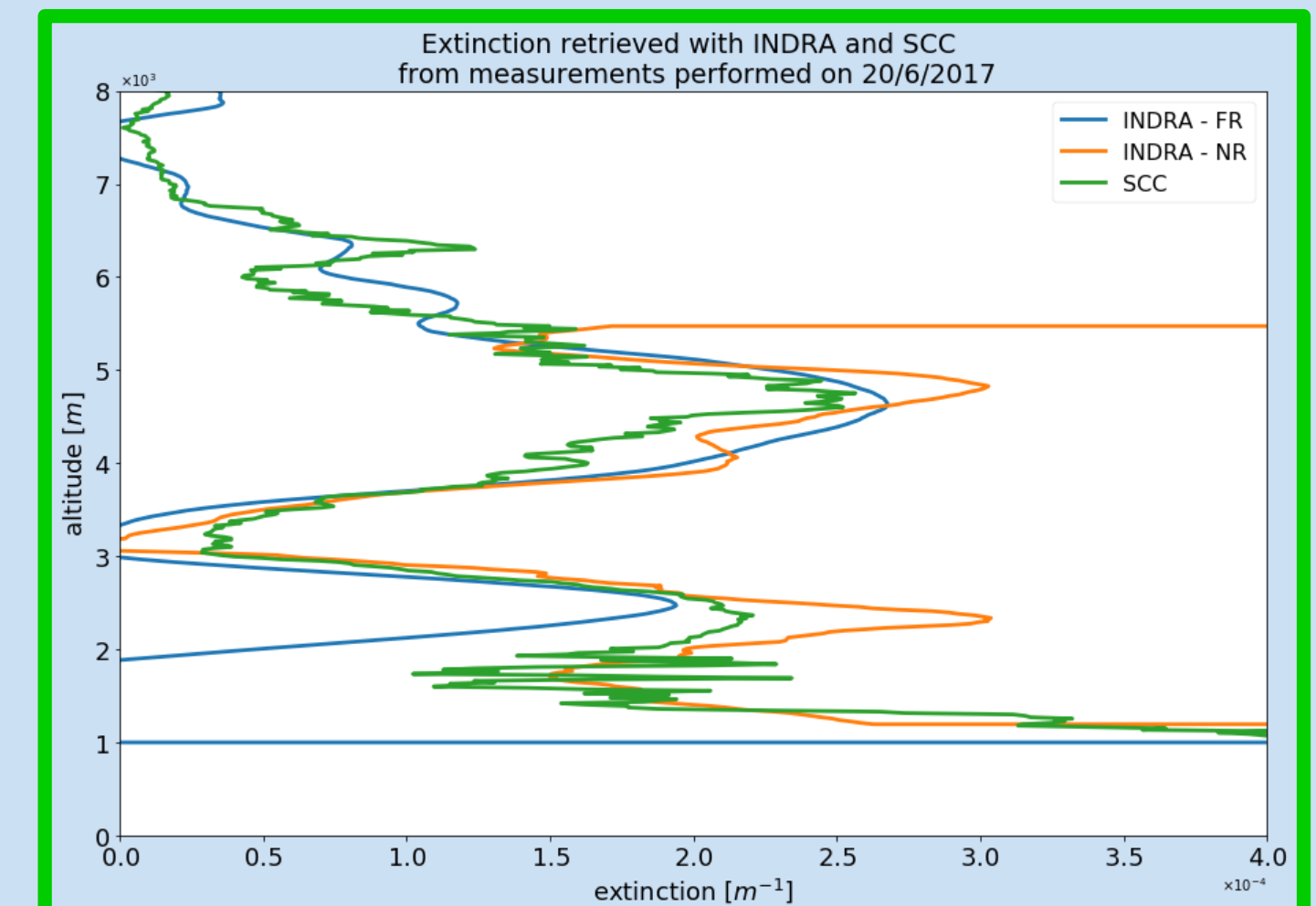
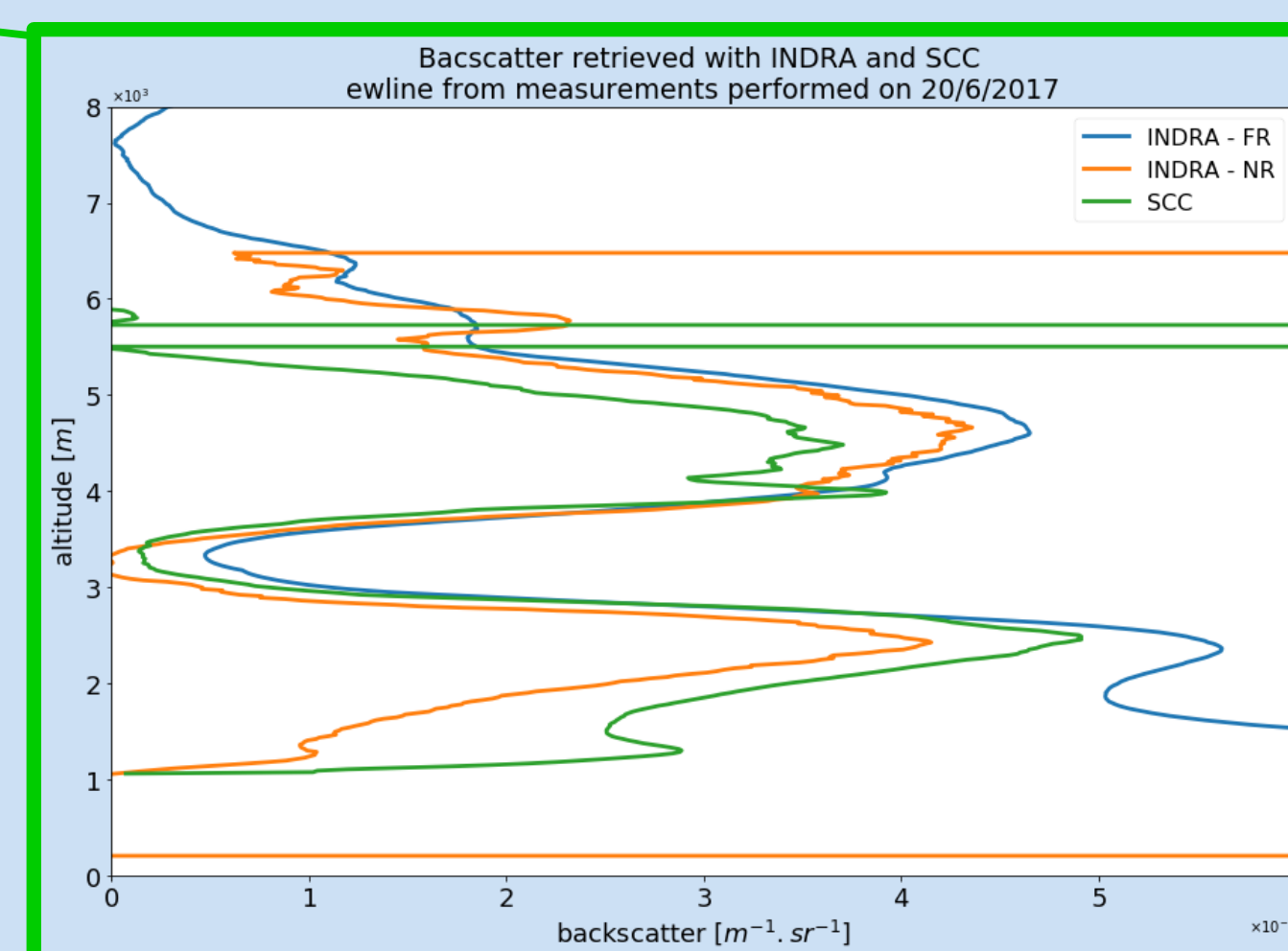
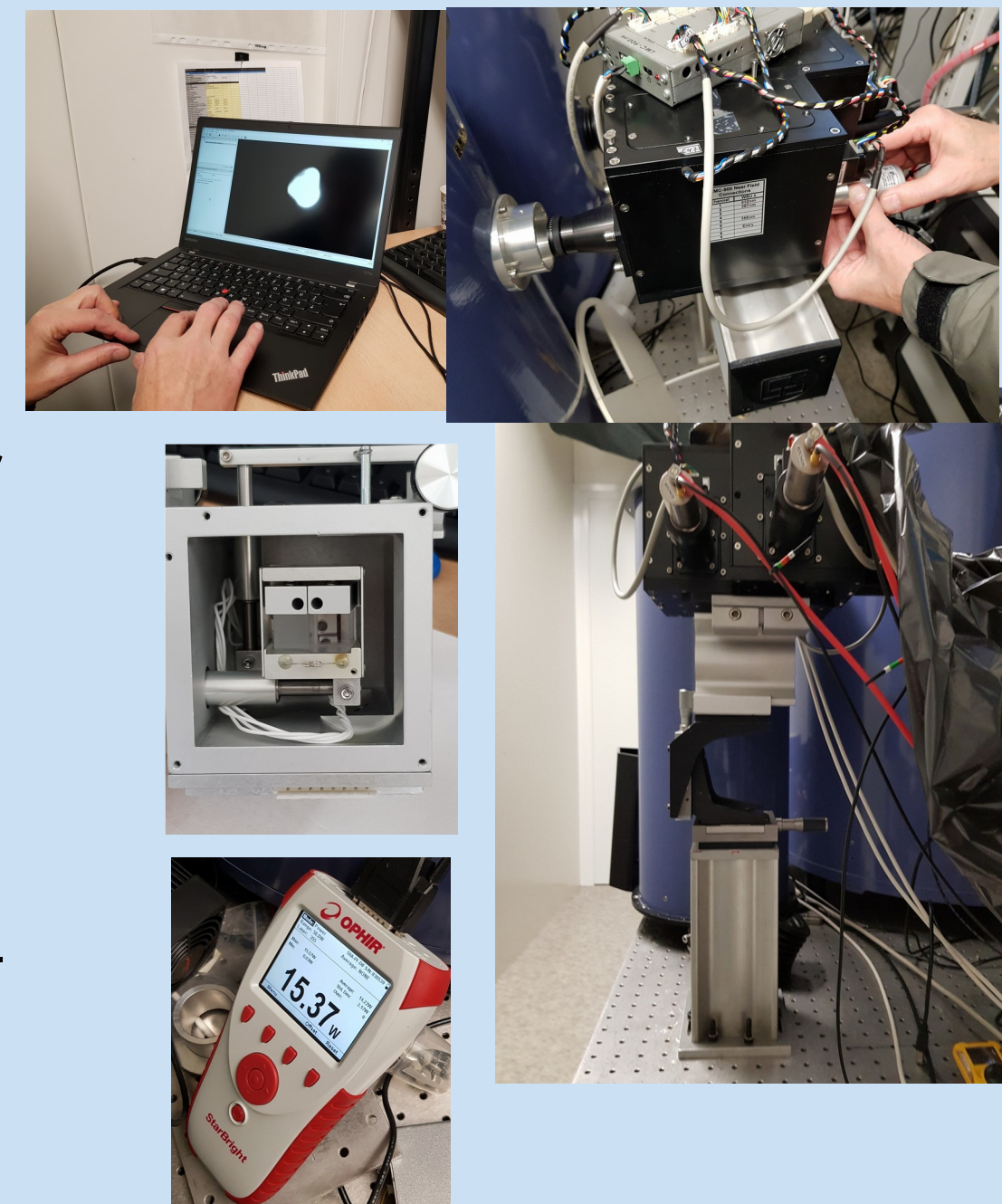


IPRAL New Developments, automation & Control Quality

- 1- Near Range évaluation of performance using ACTRIS-EU Lical training session in december 2017 supported by V. Freudenthaler
- 2- Resetting manufacturer configuration of the near-range telescope and improvement of the WSU positioning in front of the telescope in Feb 2018
- 3- Implementation of a laser cristal Type 1 to raise the 355nm power emission – 15W - 500mJ reached at 355nm

Future scheduled actions

- 1- Bore-site device supporting Far-Range alignment & Camera supporting Near-Range alignment – Raymetrics – August 2018
- 3- Lidar Intercomparison supported by ACTRIS LiCAL Center – september 2018
- 4- Moving the IPRAL system to the new SIRTA2018 building to improve environmental conditions for operation.



ACKNOWLEDGMENTS

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