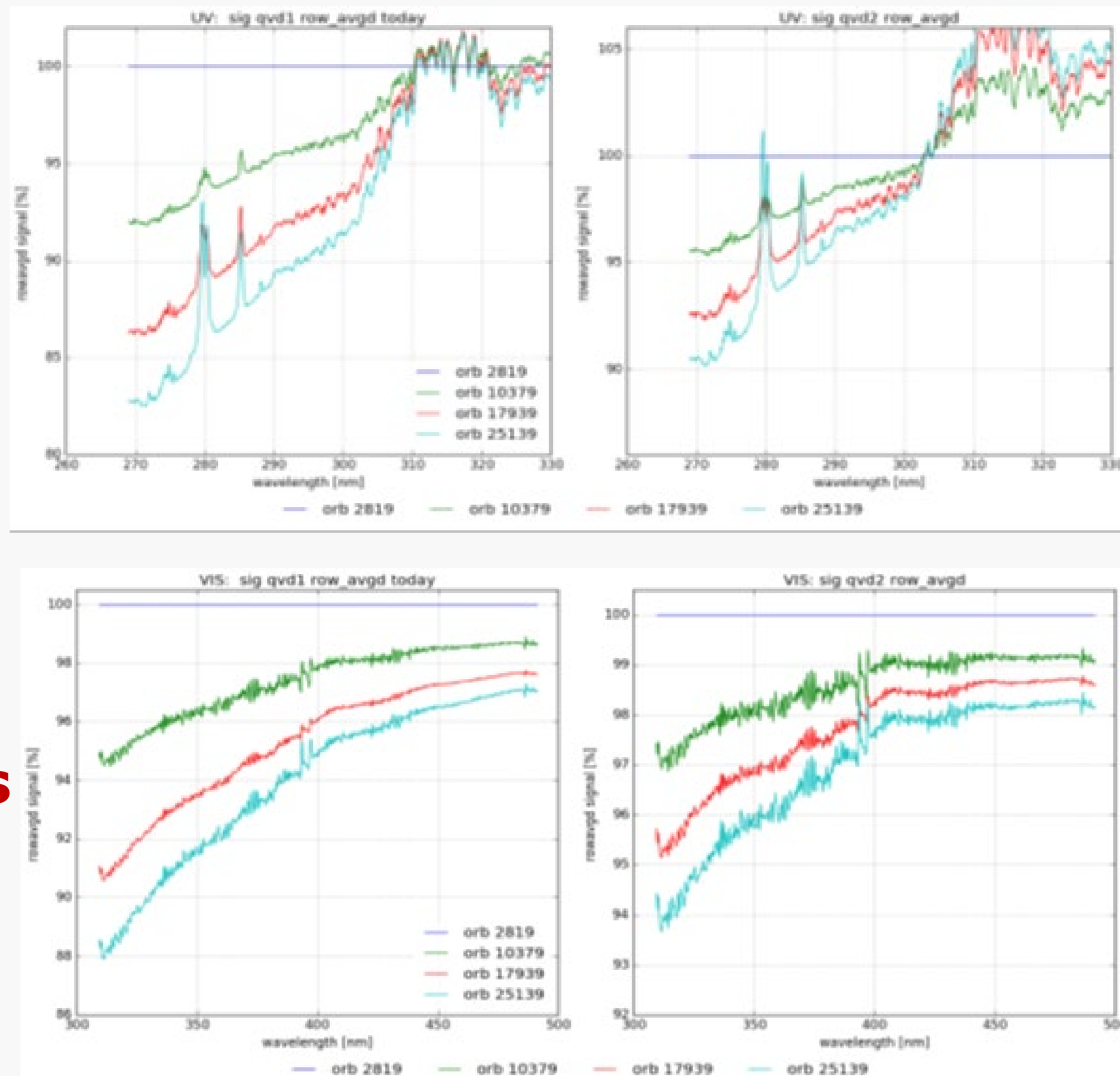


Degradation: ideas

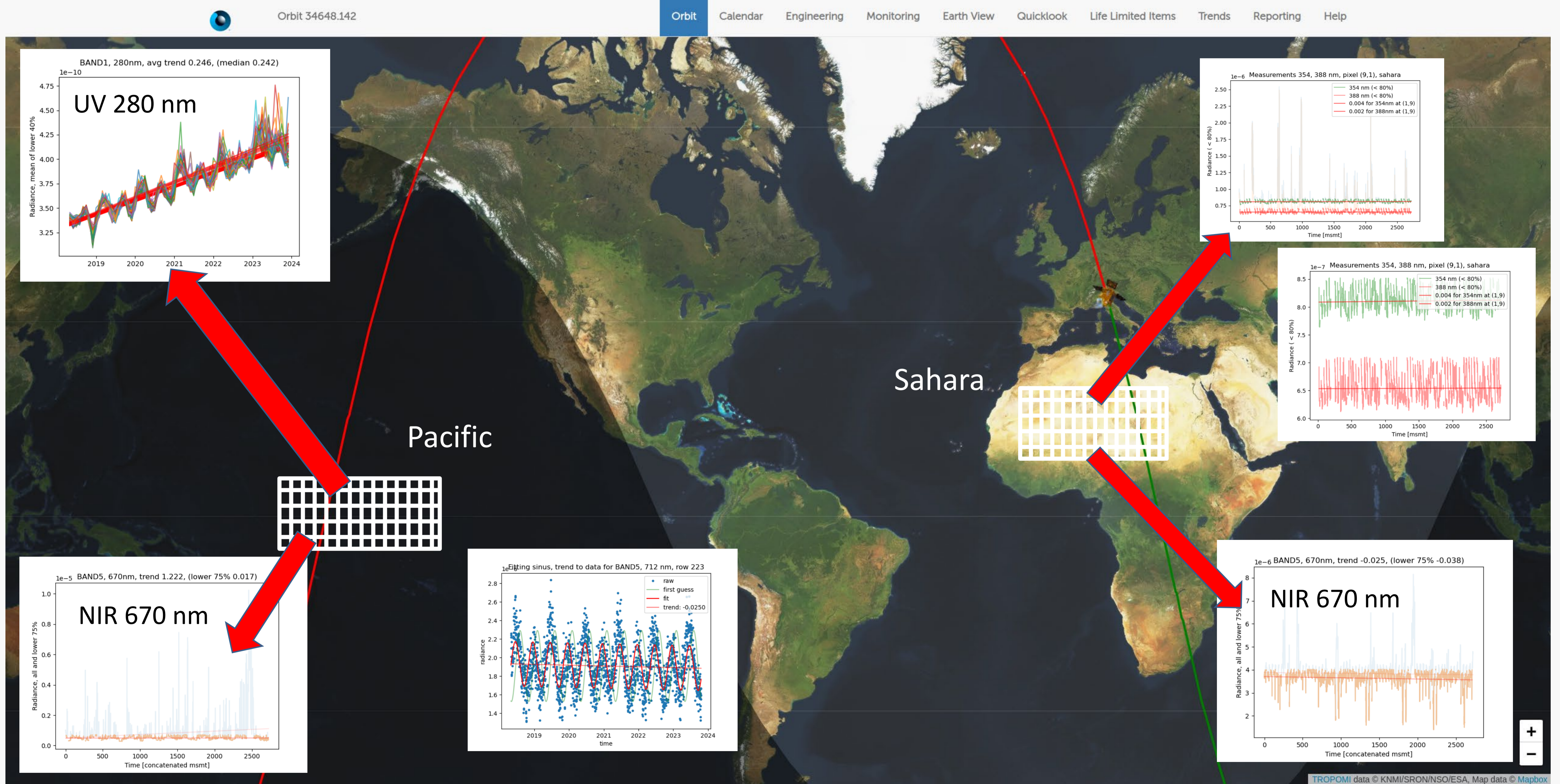
- From irradiance degradation is found
- Different sources independently corrected
- Divided in
 - Diffuser
 - Folding mirror
 - Spectrometer
- talk: **6.1.3 E. Loots**
- However, **AER_AI (L2 aerosol index)** shows trend: poster **P4.4 D.C. Stein-Zweers**



Degradation/trend sources:

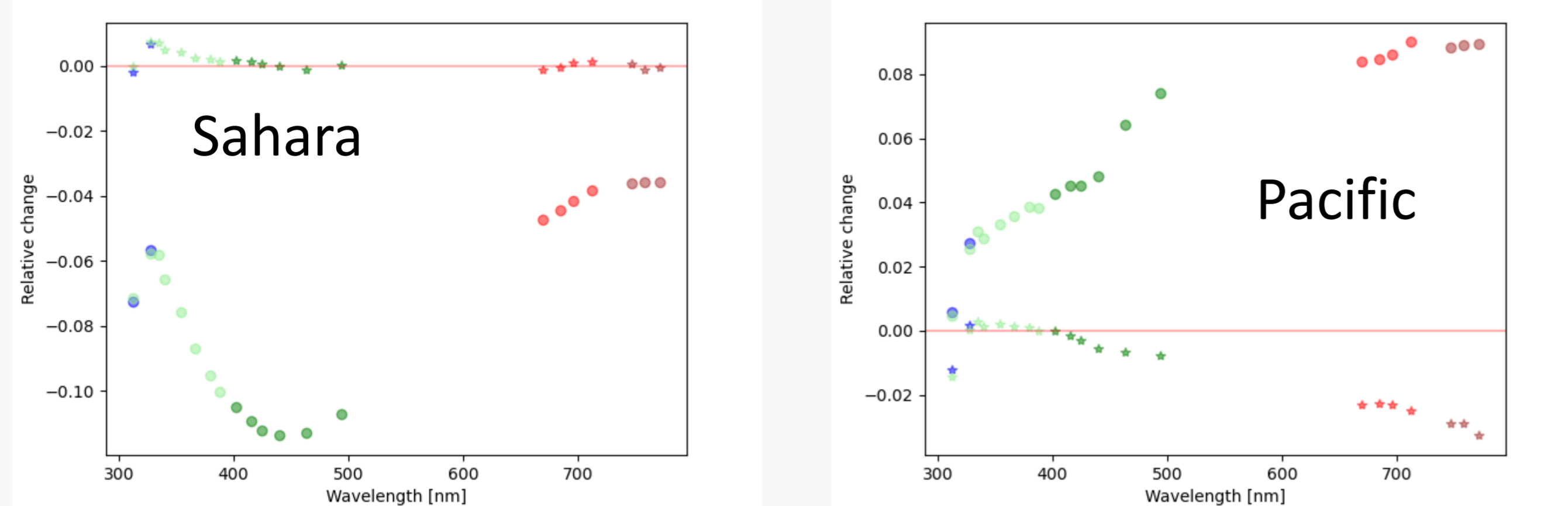
- Along optical path through instrument:
 - ✓ (Diffuser: irradiance)
 - ✓ Folding mirror
 - ✓ Spectrometer
 - ✓ Straylight (partially corrected)
- ✓ Solar variability (not corrected for)
- Question: Is radiance channel stable?
- Method:
 - Pure L1 radiance (monitor data)
 - Take one swath angle (detector row)
 - Look in small homogeneous area (2°x2°)
 - Region 15x5 "ensemble" over land (**Sahara**) and sea (**Pacific**)
 - "Cloud" filter: take lower 75%

Results:



Trend as function of wavelength

- Median trend of ensemble of 75 pixels per region
- When filtered for low values, no clear signal
- Unfiltered trends do not seem to be random



Conclusion

- UV 280 nm straylight issue
- Sahara**: no (significant) trends for ensemble of pixels
- Pacific**: apparent trend with longer wavelength
- Analysis does not seem to indicate overcorrection by current degradation calibration key data
- High radiance values seem to constitute non-random trends