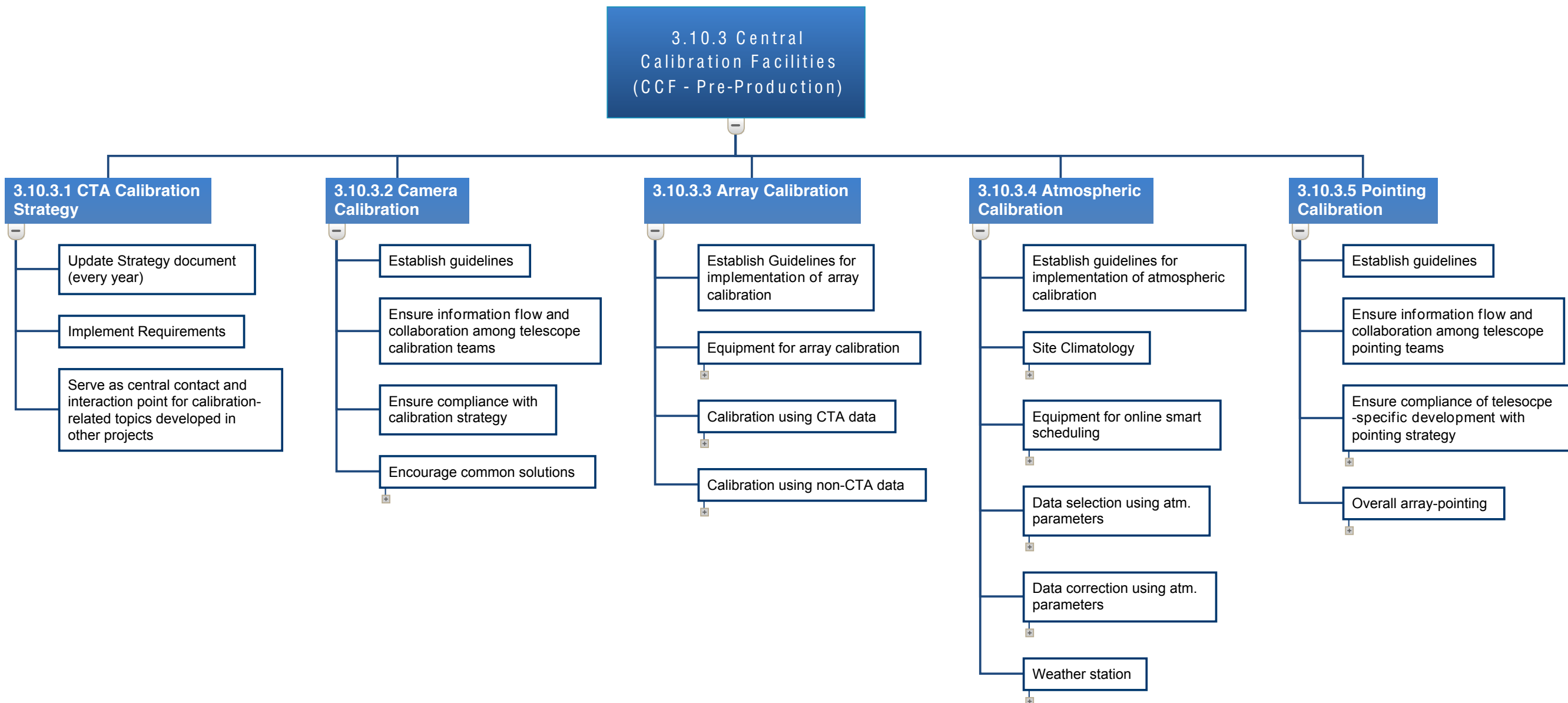


# Introduction to CCF-Atmo

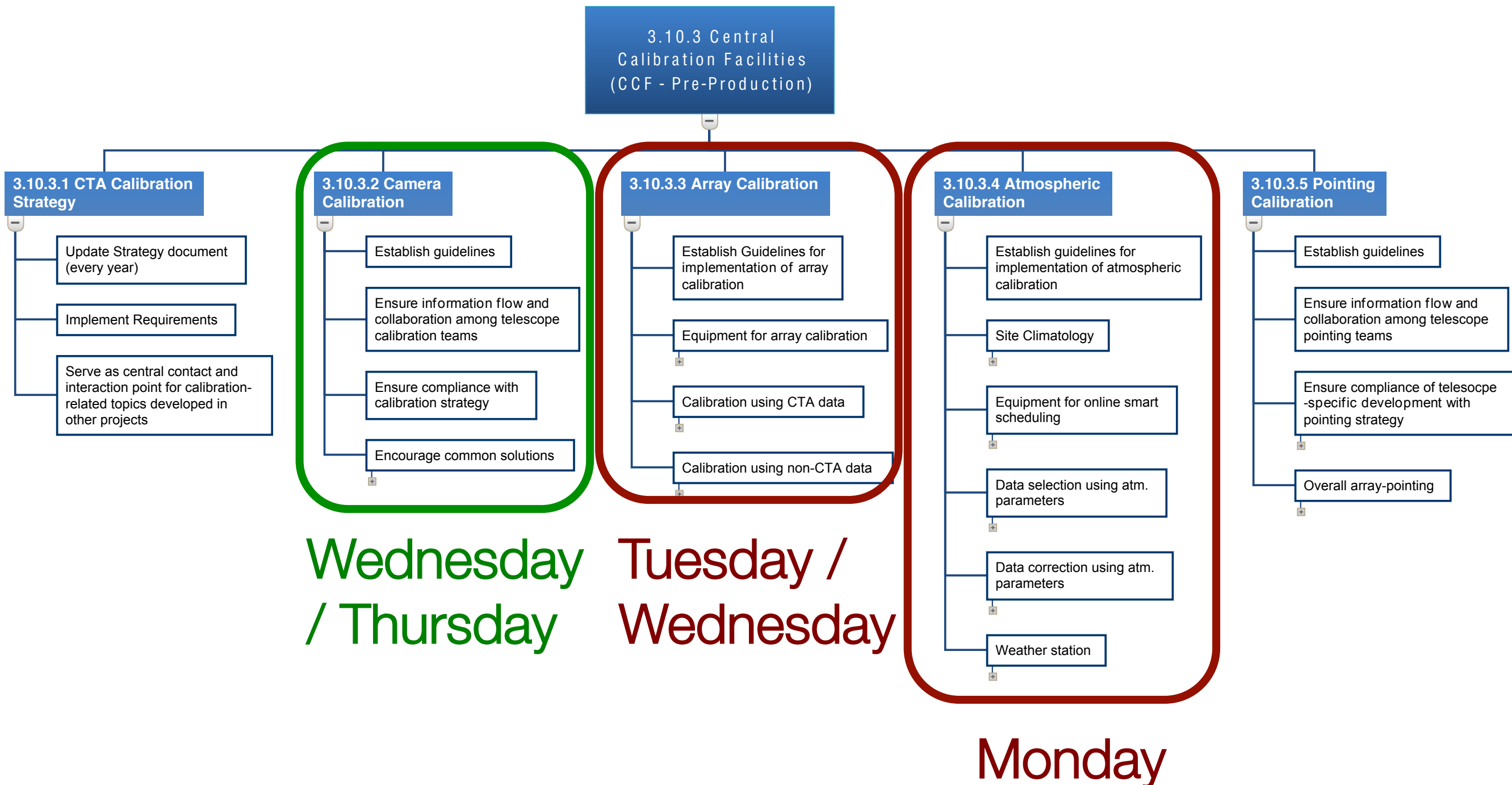


Markus Gaug  
*[markus.gaug@uab.cat](mailto:markus.gaug@uab.cat)*

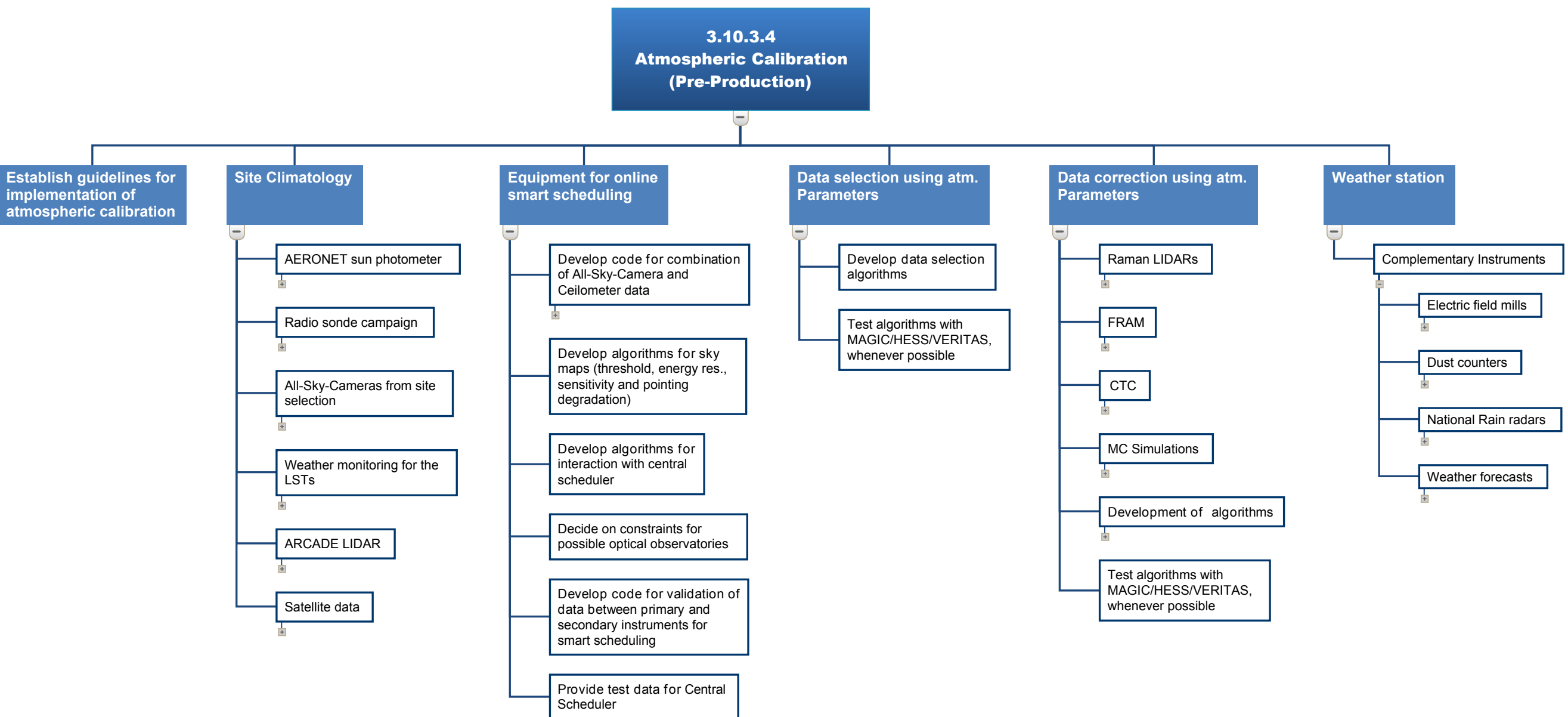
# General WBS (from COM-TDR)



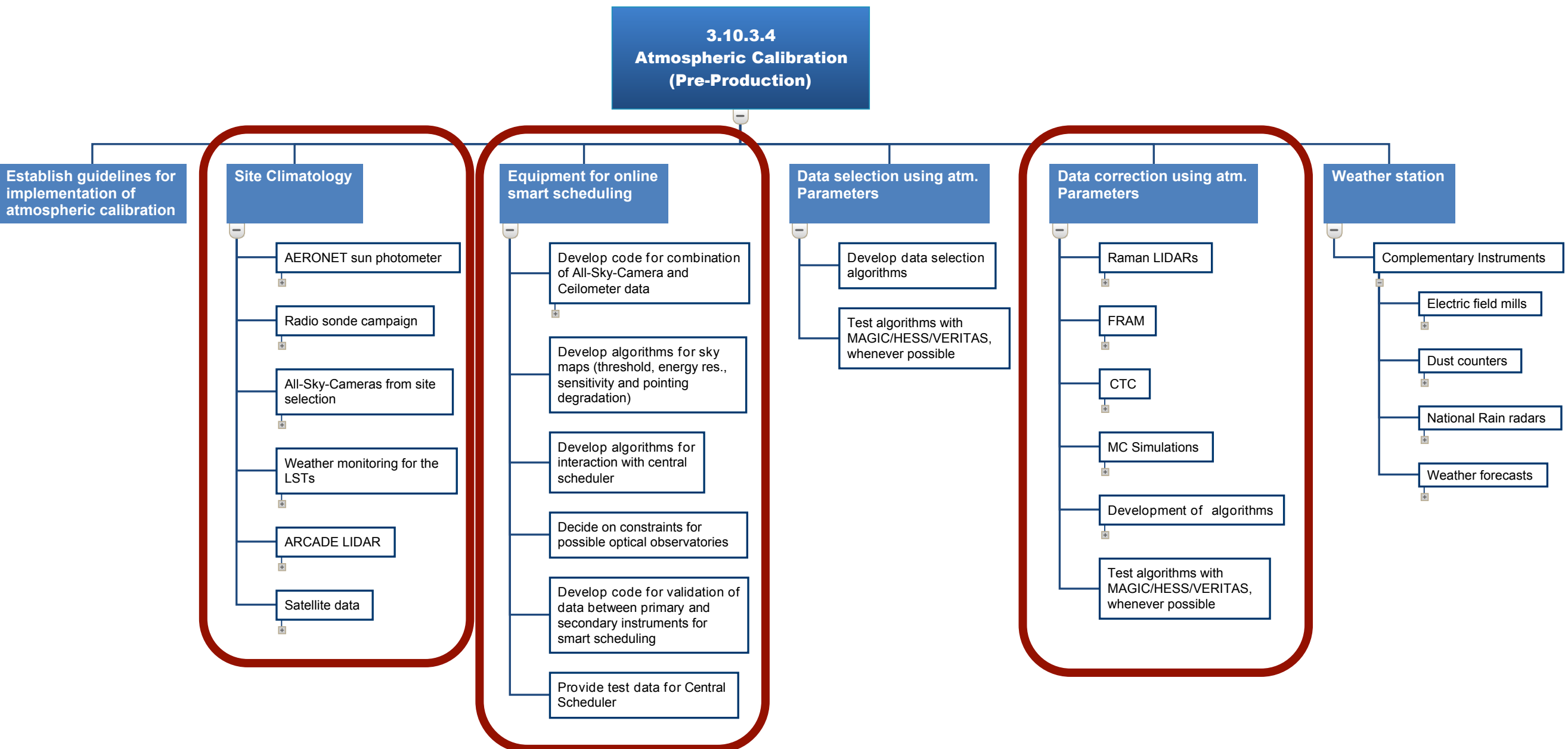
# General WBS (from COM-TDR)



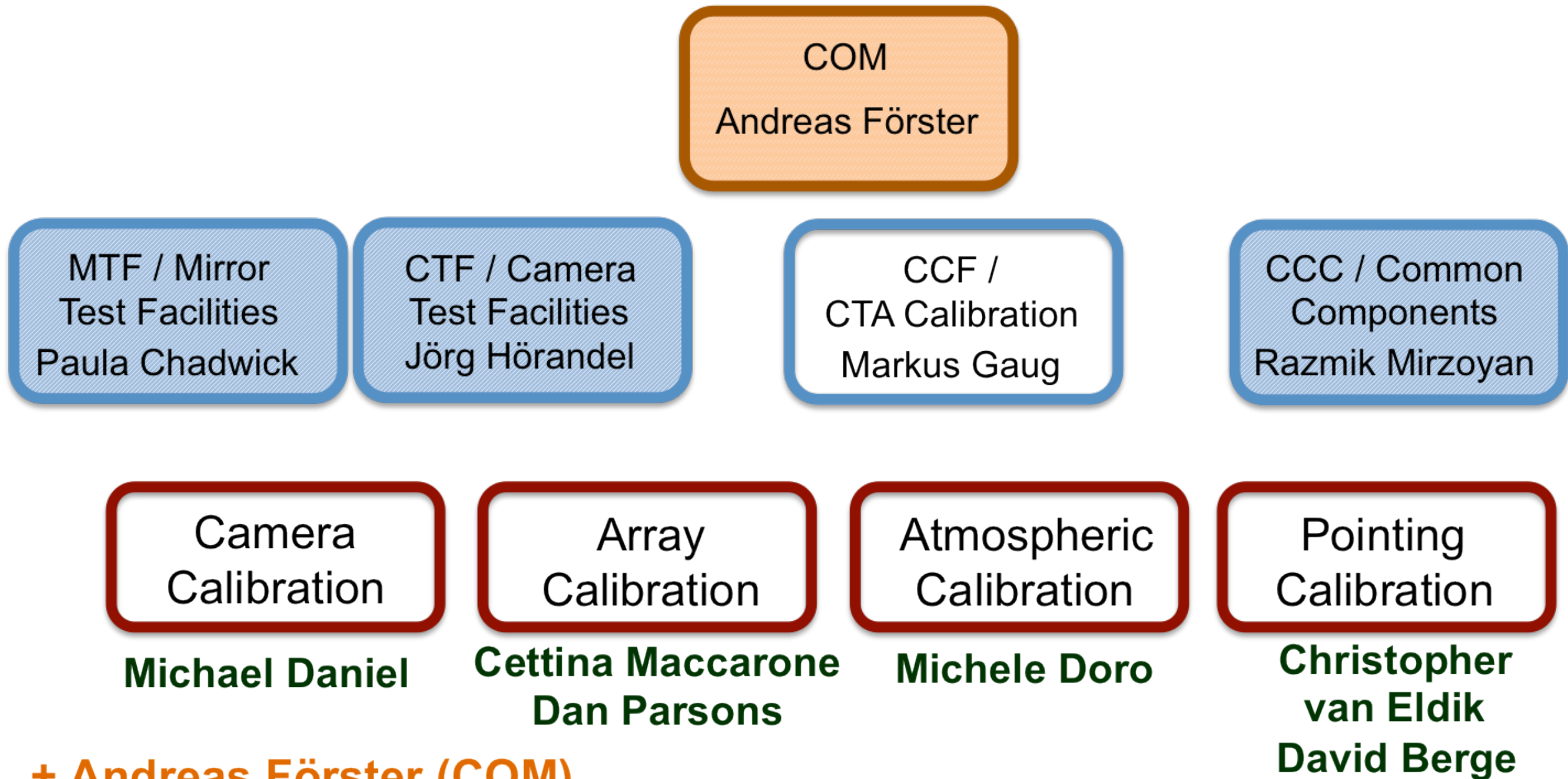
# General WBS (from COM-TDR)



# General WBS (from COM-TDR)

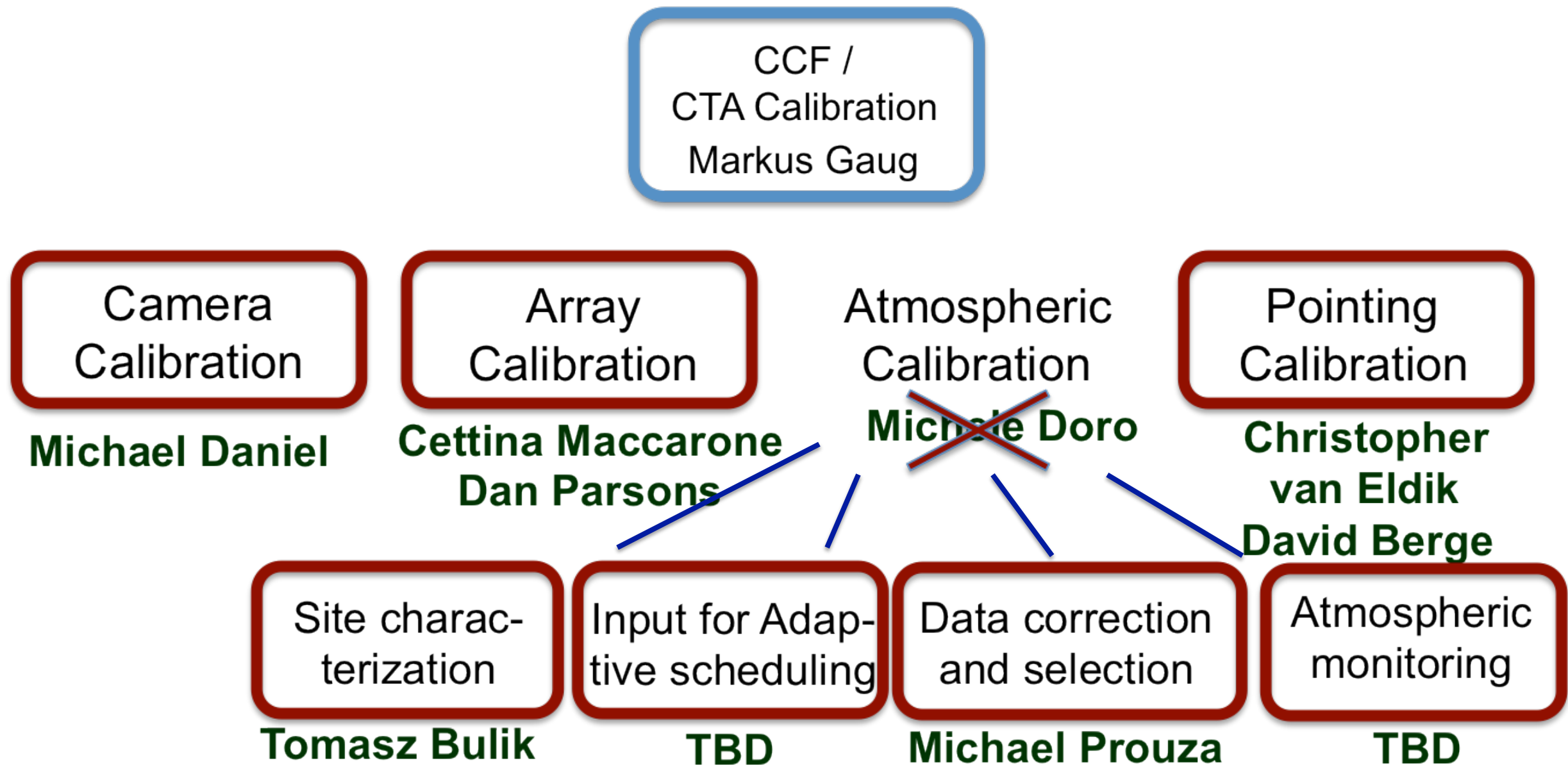


# CCF management-structure (until 2015)



- + **Andreas Förster (COM)**
- + **Raquel de los Reyes (DATA)**
- + **Delegates from Telescopes**

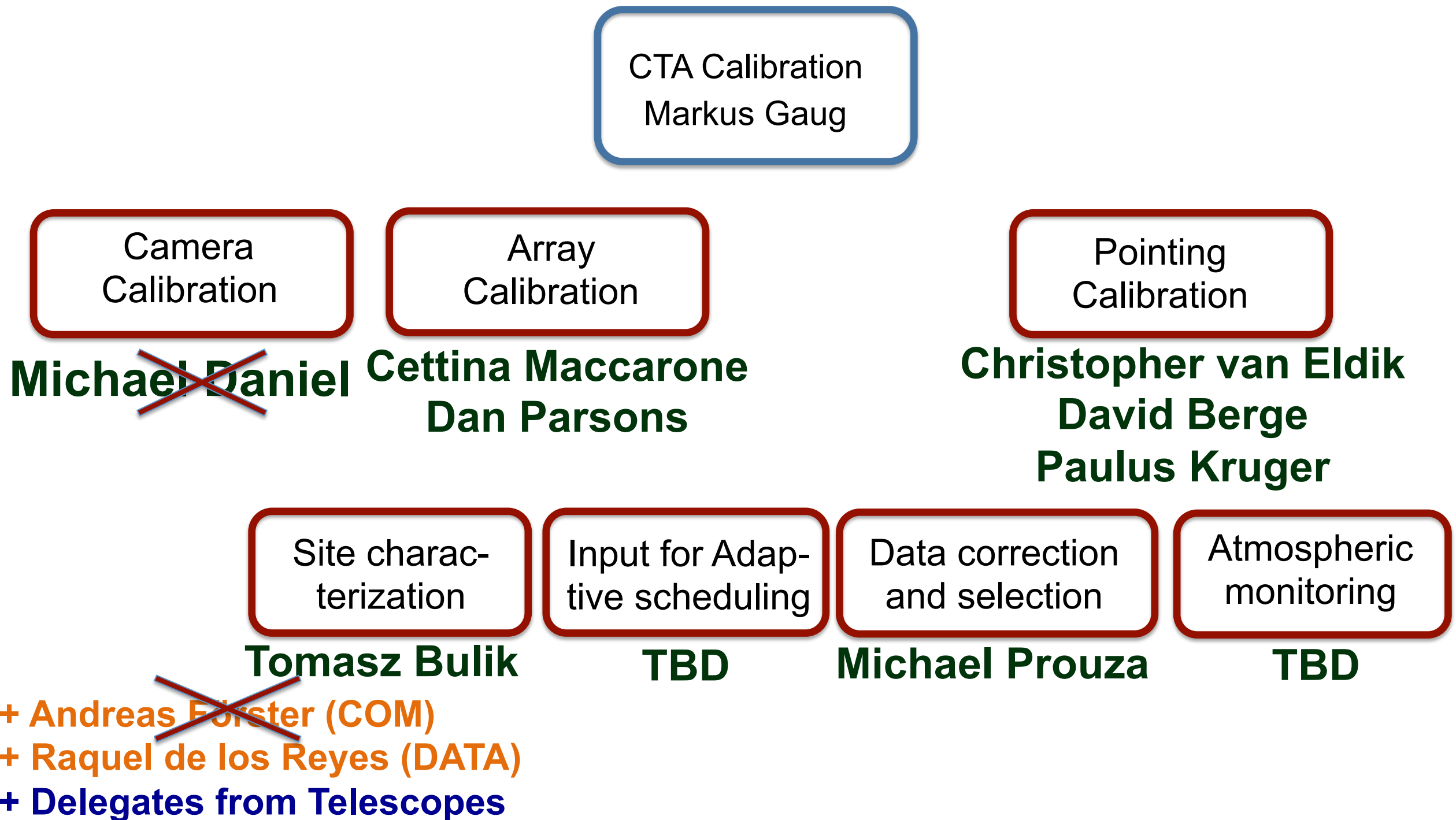
# CCF management-structure (now)



- + **Andreas Förster (COM)**
- + **Raquel de los Reyes (DATA)**
- + **Delegates from Telescopes**



# CCF management-structure (future)





# CCF management

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Coordination is big effort, and most of us have other important responsibilities and are therefore over-loaded!



# Some words about the TDR



## Common Technology Evaluation, Testing and Calibration Technical Design Report

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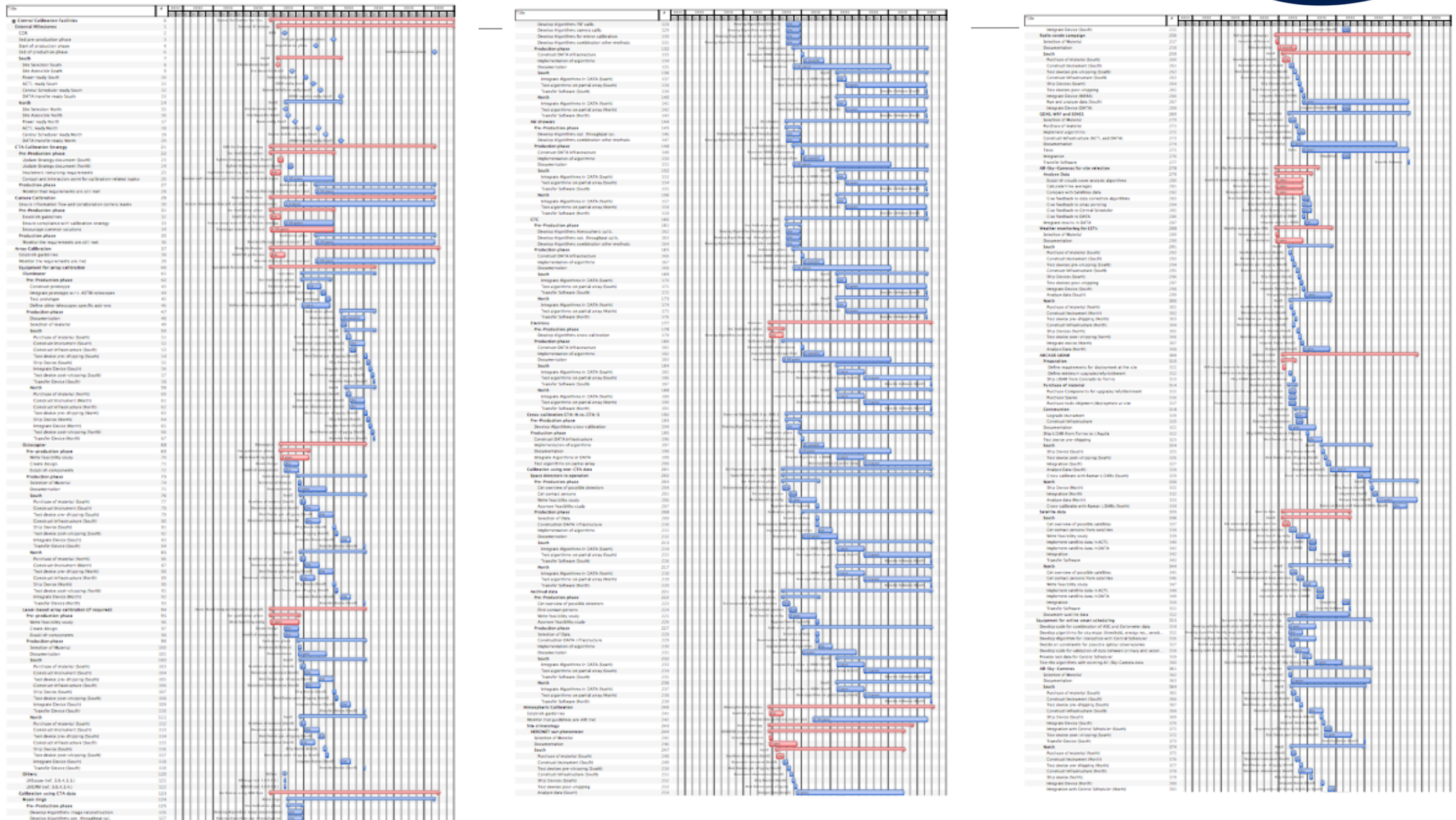
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CCF is part of the COM-TDR (only CCF part contains 130 pages)





# Our current schedule...



670 entries in the CCF schedule

# About the TDR

---



- Was a tremendous effort to have the TDR ready for May 2015
- Some parts are already outdated!
- PO will start a new iteration beginning next year (March?)
- Several parts need to be completely re-written (e.g. those concerning the sites, which are now selected).

Thank you for the effort to contribute writing

...

But be prepared for a new effort





# Calibration Requirements

---



CTA has much higher restrictions on allowed systematic uncertainties than current Cherenkov Telescope Experiments

**10% on energy scale** (*SCI-170*)

currently ~15% under good observation conditions

**5'' (3'' goal) per axis on source localization** (*SCI-100*)

~20''-30'' routinely achieved

CTA has strong requirements on the effective duty cycle

**100% of feasible operational time** available for observations  
(*SCI-120*)

currently 20-30% of taken data are not fully exploited



# The need for an online adaptive scheduler

---



**100% of feasible operational time** available for observations (SCI-120)  
currently 20-30% of taken data are not fully exploited

- An important lesson learnt from current IACTs is that **data** taken under conditions, which do **not permit** a **useful analysis** of the respective physics case, should be **actively avoided** instead of passively “suffered”.
- This requires **all-sky monitoring** and **assessment of cloud/aerosol thickness and heights**, in order to:
  - observe those parts of sky which are clear
  - prioritize those science programs which are not precluded by current conditions (e.g. due to energy threshold, pointing requirements, etc.)
- All-Sky monitoring requires either passive devices or active devices working at wavelengths which do not disturb the CTA telescopes

# The need for an online adaptive scheduler

---



**100% of feasible operational time** available for observations  
(*SCI-120*)

currently 20-30% of taken data are not fully exploited

The data from All-Sky-Camera and Ceilometer need to be converted into maps that the Central Scheduler can use:

- actual and foreseen energy thresholds,
- energy resolution,
- sensitivity degradation.
- pointing degradation