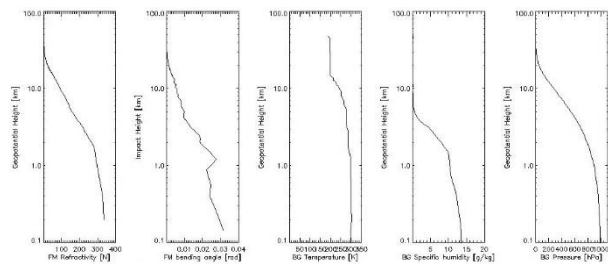


Statement of Work

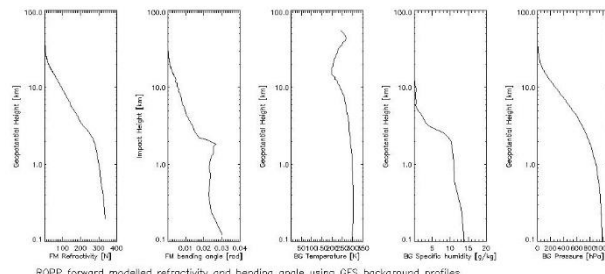
- Developing a dry temperature algorithm for FSI system
 - The algorithm has been integrated into FSI system
- Developed a procedures to transform GFS forecast to ROPP forward model background
- Developed a procedures to transform RAOB to ROPP forward model background
- Compared bending angle and refractivity of ROPP forward model output with col-located RAOB, GFS, and ECMWF as input



ROPP forward modelled refractivity and bending angle using RAOB background profiles
Data available from <http://www.noaa.org>

Calls ropp_fm_bgra_1d. Produced on: Fri Jan 31 10:24:28 2020

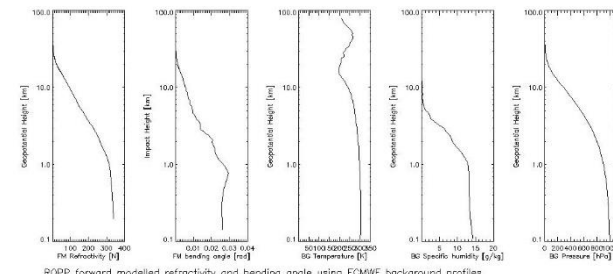
RAOB



ROPP forward modelled refractivity and bending angle using GFS background profiles
Data available from <http://www.noaa.org>

Calls ropp_fm_bgra_1d. Produced on: Fri Jan 31 10:33:19 2020

GFS



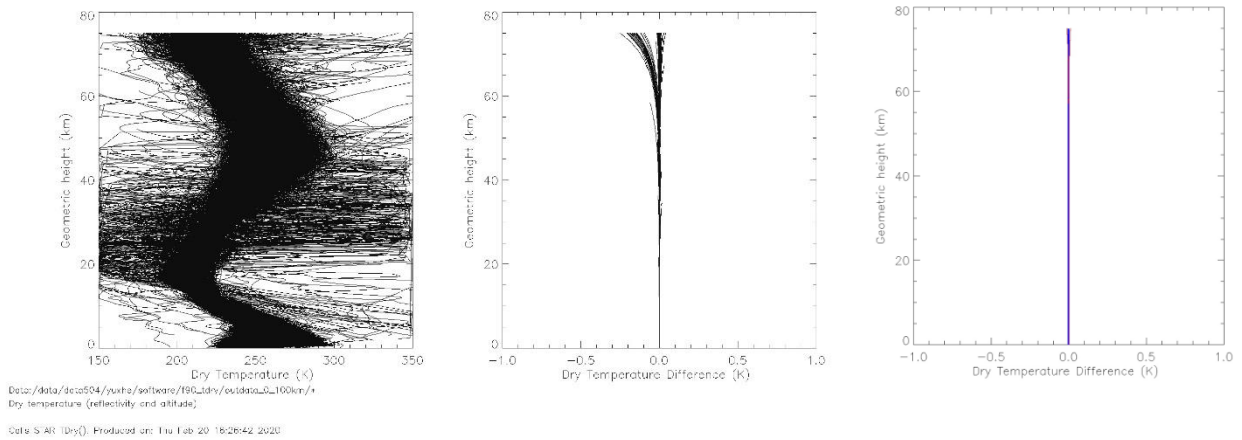
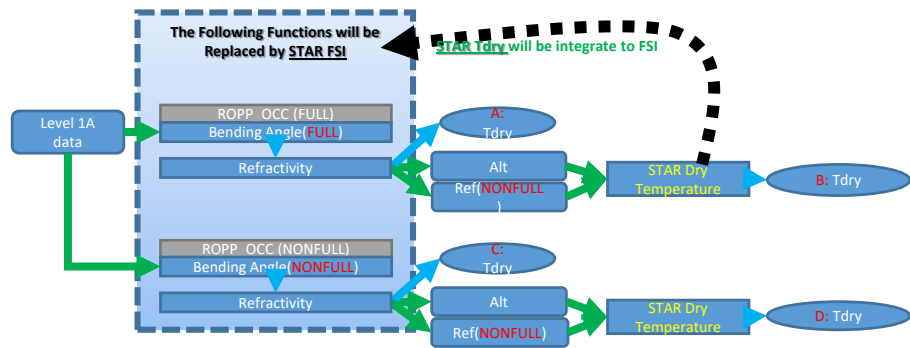
ROPP forward modelled refractivity and bending angle using ECMWF background profiles
Data available from <http://www.romsaf.org>

Calls ropp_fm_bgra_1d. Produced on: Fri Jan 31 10:40:00 2020

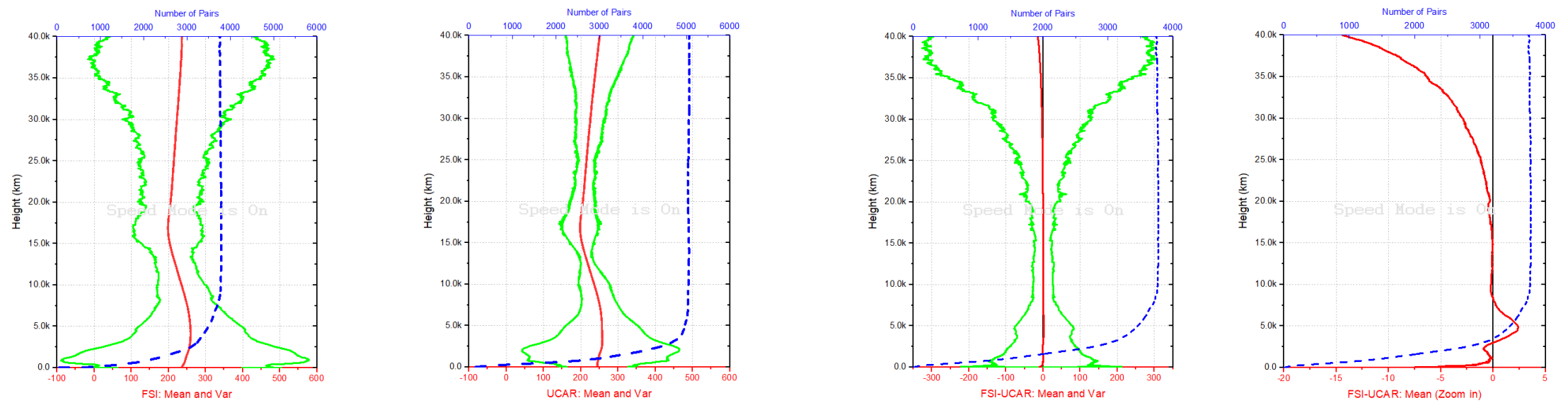
ECMWF

Current Work: Developing a dry temperature algorithm

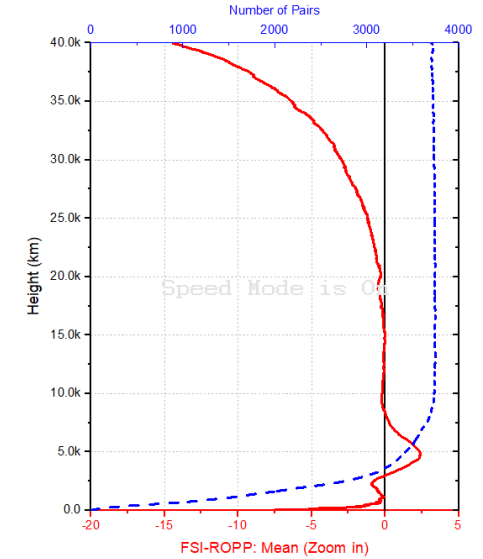
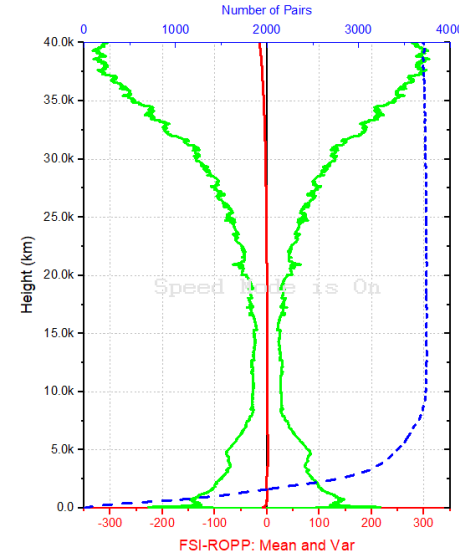
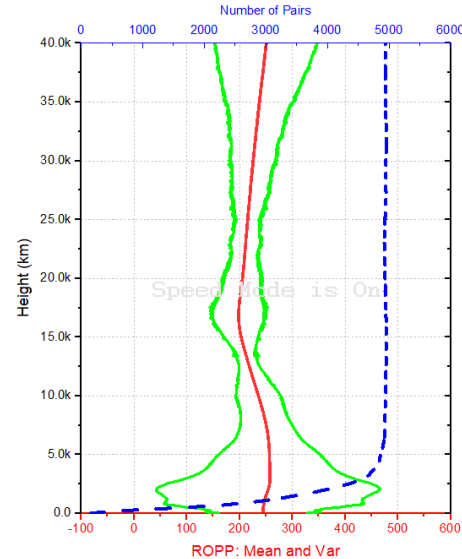
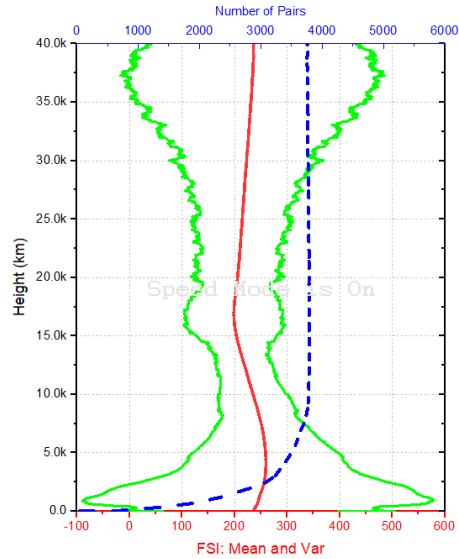
- Developed a dry temperature and dry press algorithm and tested



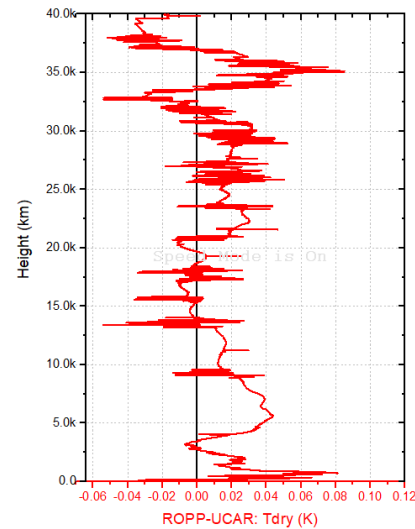
- Integrated the algorithm into FSI system and compared with UCAR's products



- Further compared with ROPP's products



- The difference of ROPP with UCAR



- The bending angle and refractivity needs to be further improved
- Possible paper is about how to improve STAR FSI system