noaa and ccast relative FOV response

*** preliminary draft ***

H. E. Motteler, L. L. Strow

UMBC Atmospheric Spectroscopy Lab
Joint Center for Earth Systems Technology

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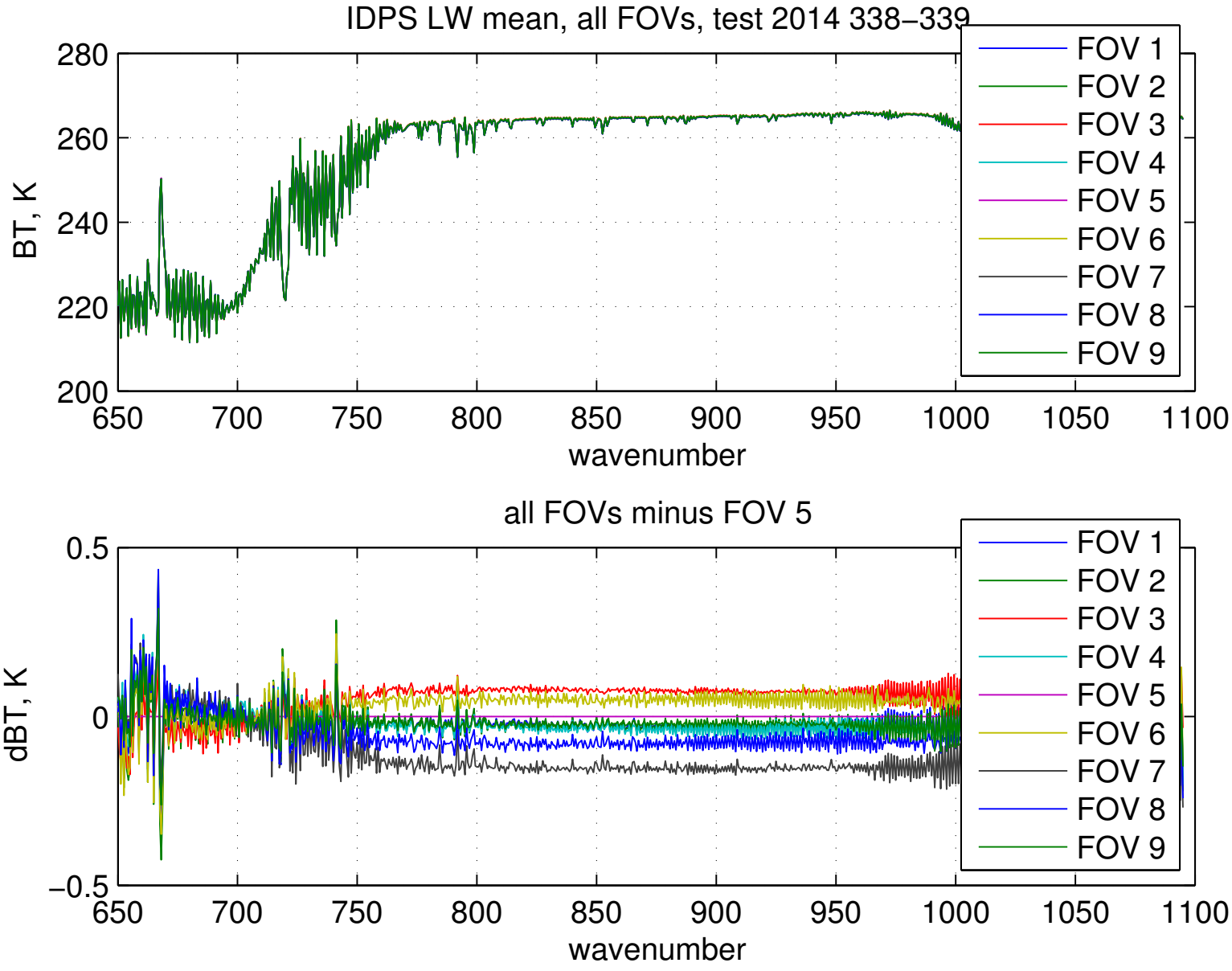
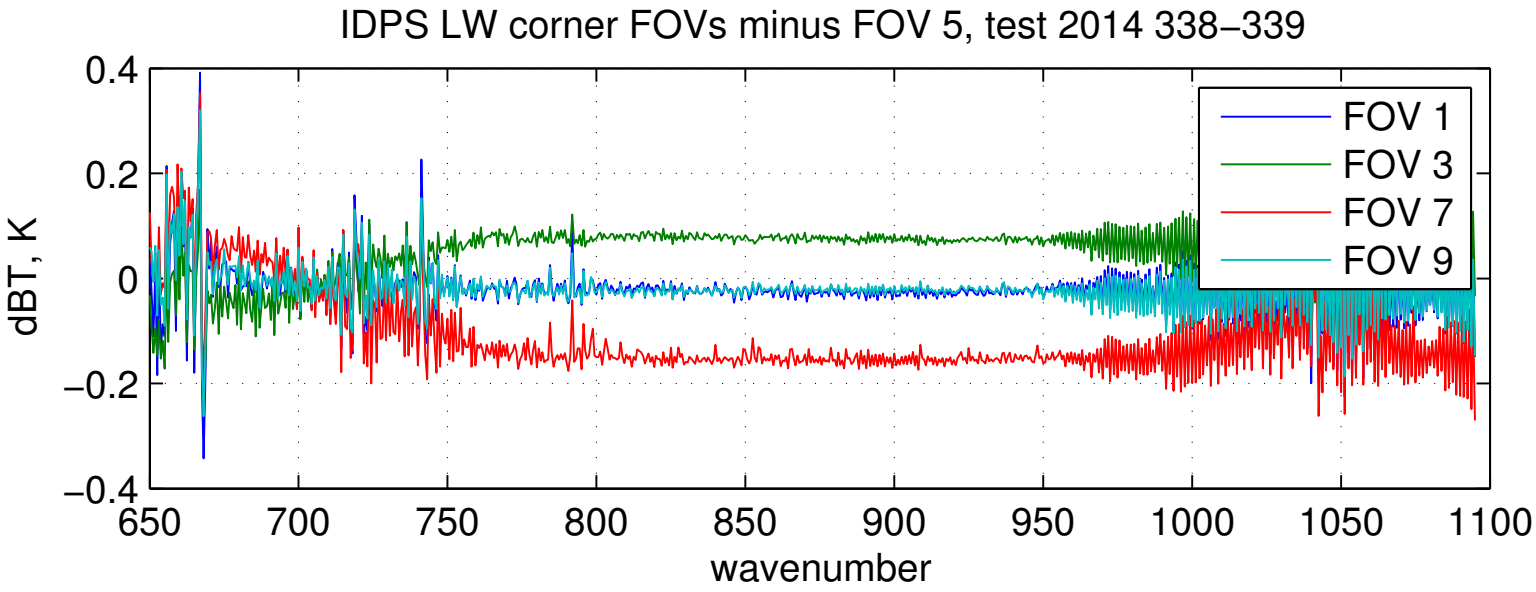
test methods

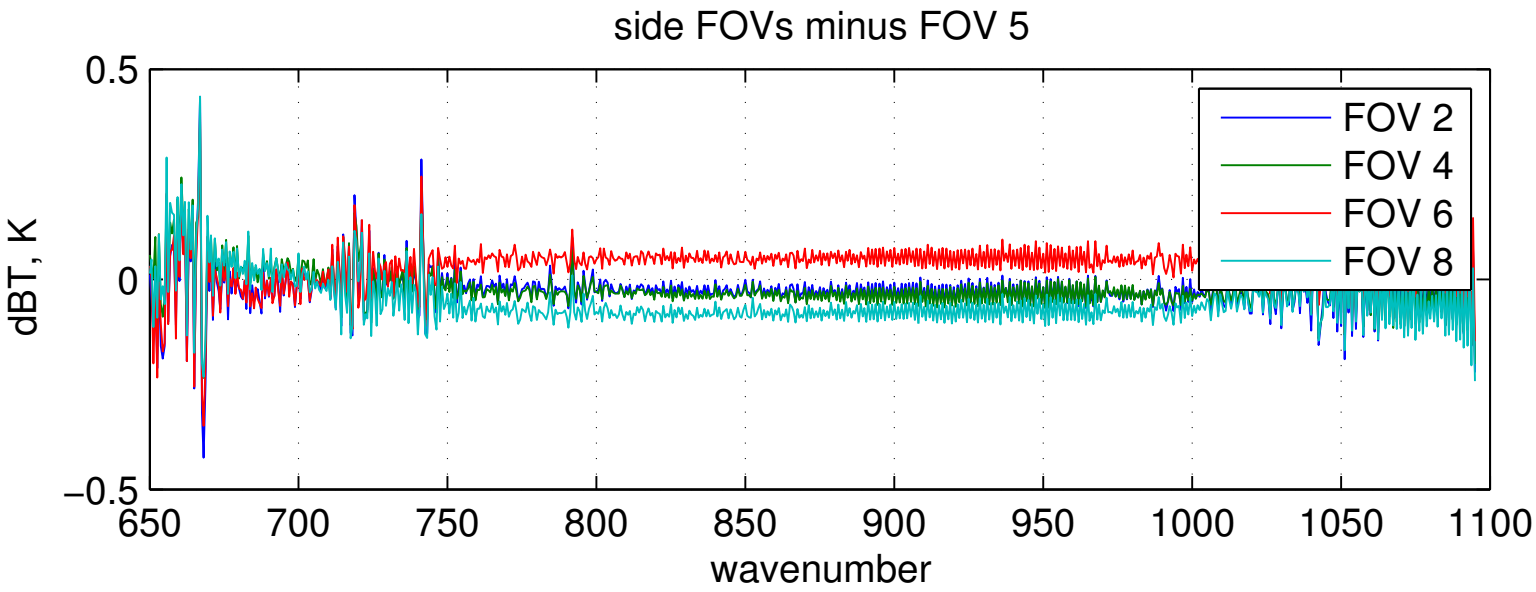
- we start with ccast and noaa high res obs for 4–5 Dec 2014
- tests were done both with all available obs and with all obs where no LW channel was greater than 320K. There were 15036 ccast obs, and 15022 after dropping obs with hot channels. There were 9094 NOAA obs, none with hot channels
- We take the average and standard deviation of this data for FOR 15 and 16 independently for each FOV, and compare these values with the values for FOV 5
- the intent is to show variation among FOVs, as might arise from varying nonlinearity or artifacts of the self-apodization correction
- these basic consistency stats immediately showed problems with the new LW data

noaa LW avg all obs

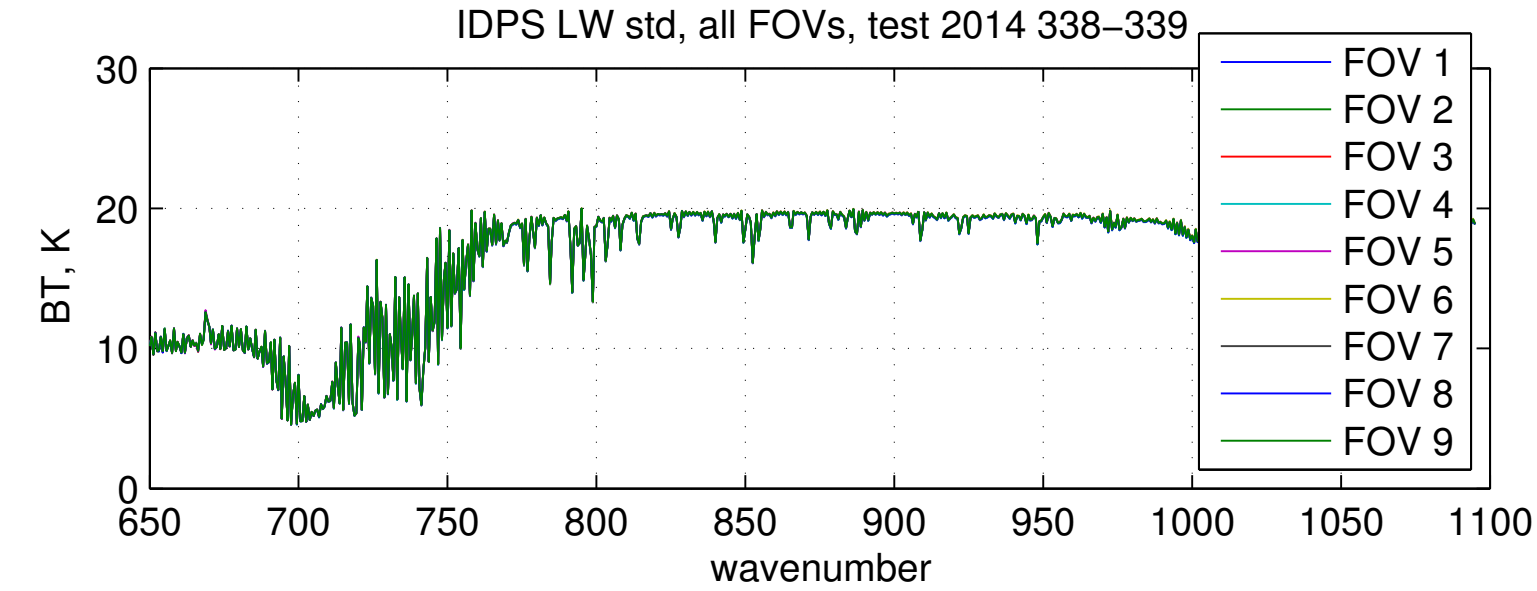


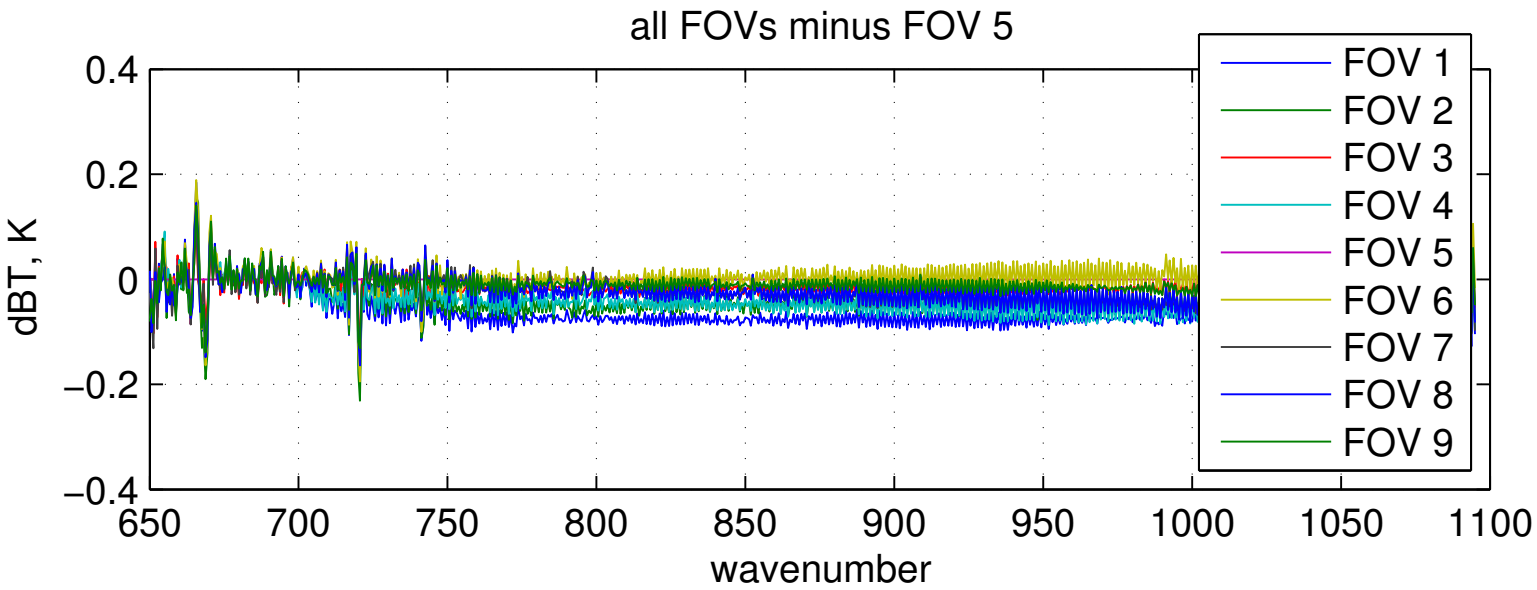
noaa LW dif all obs



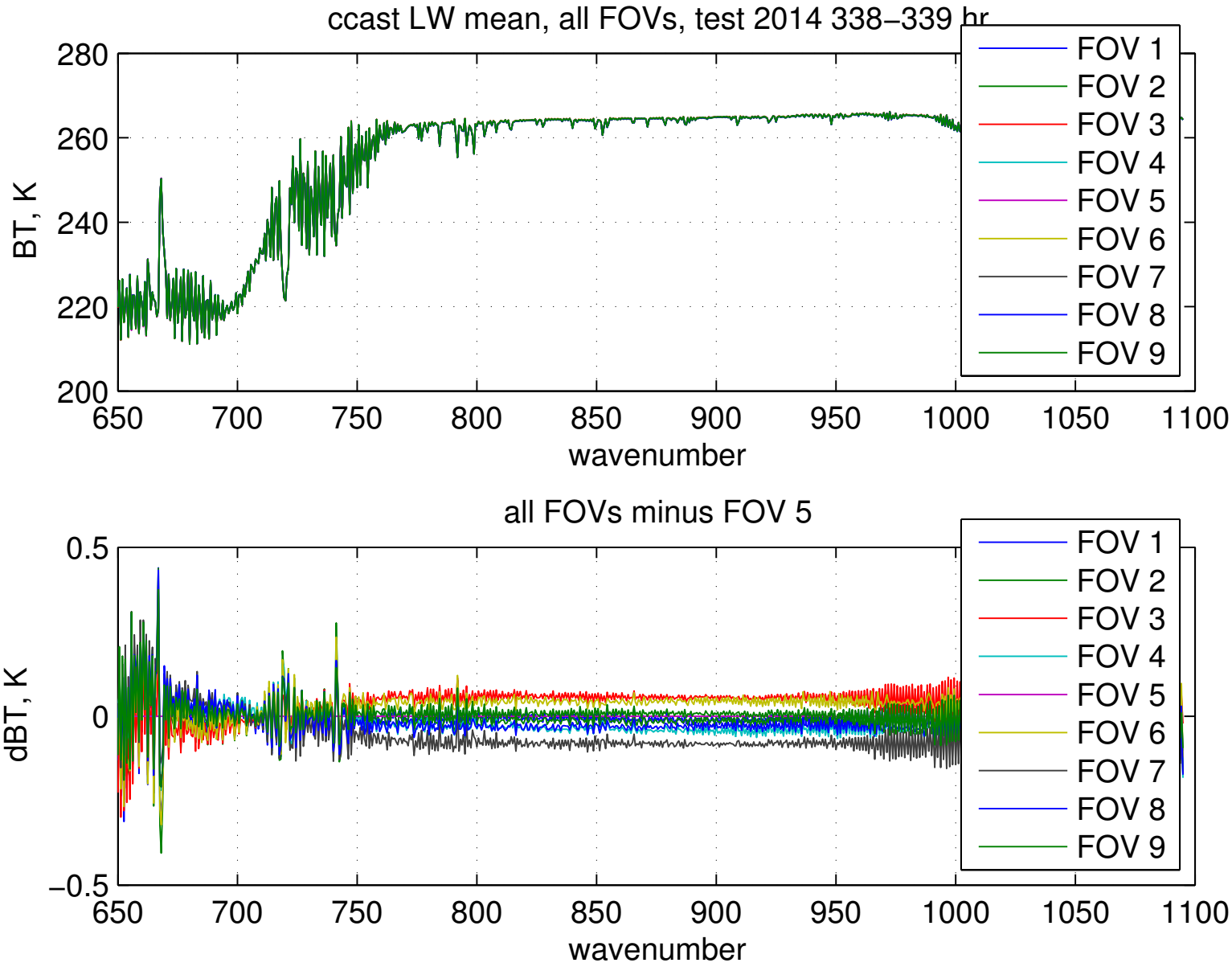


noaa LW std all obs





ccast LW avg obs $<$ 320K



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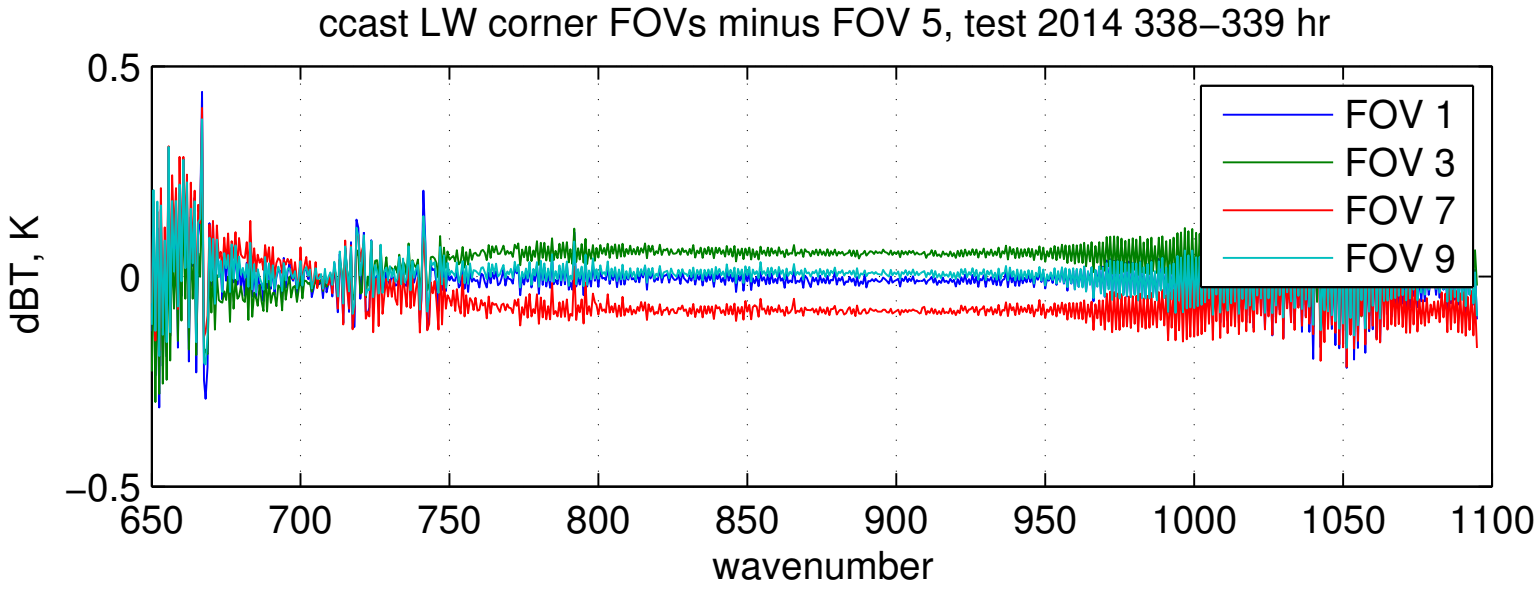

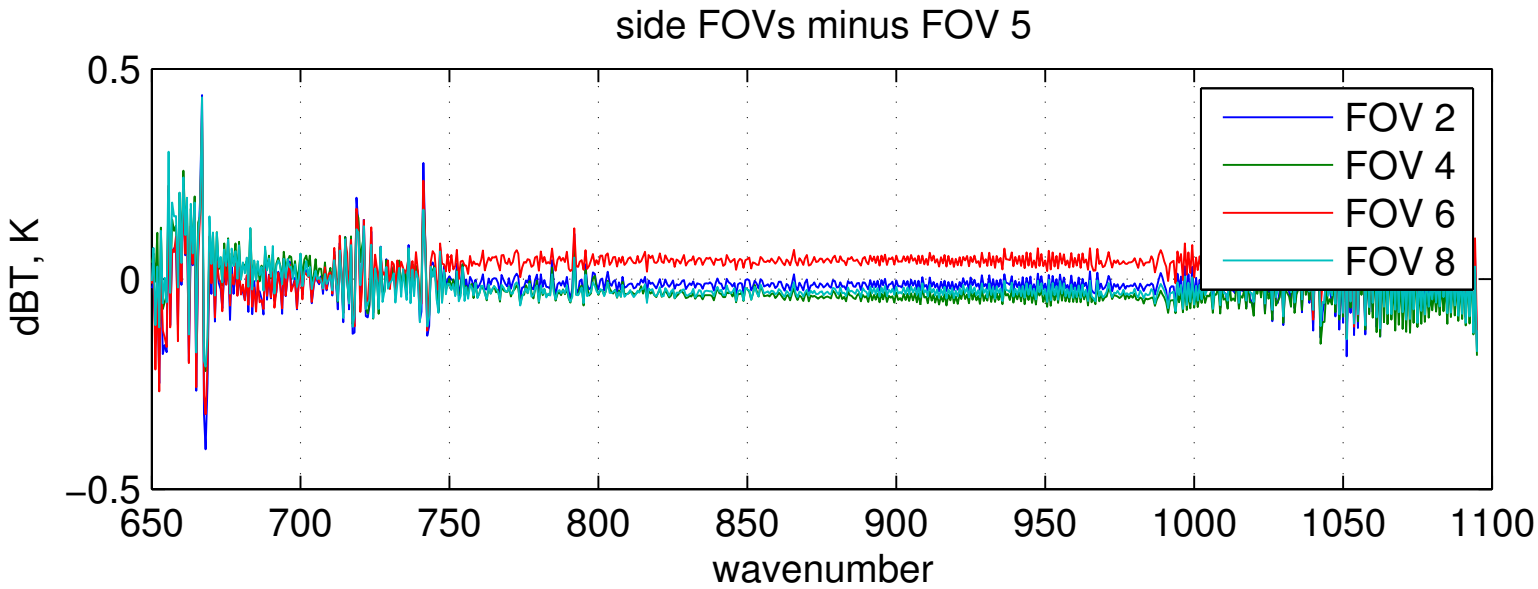

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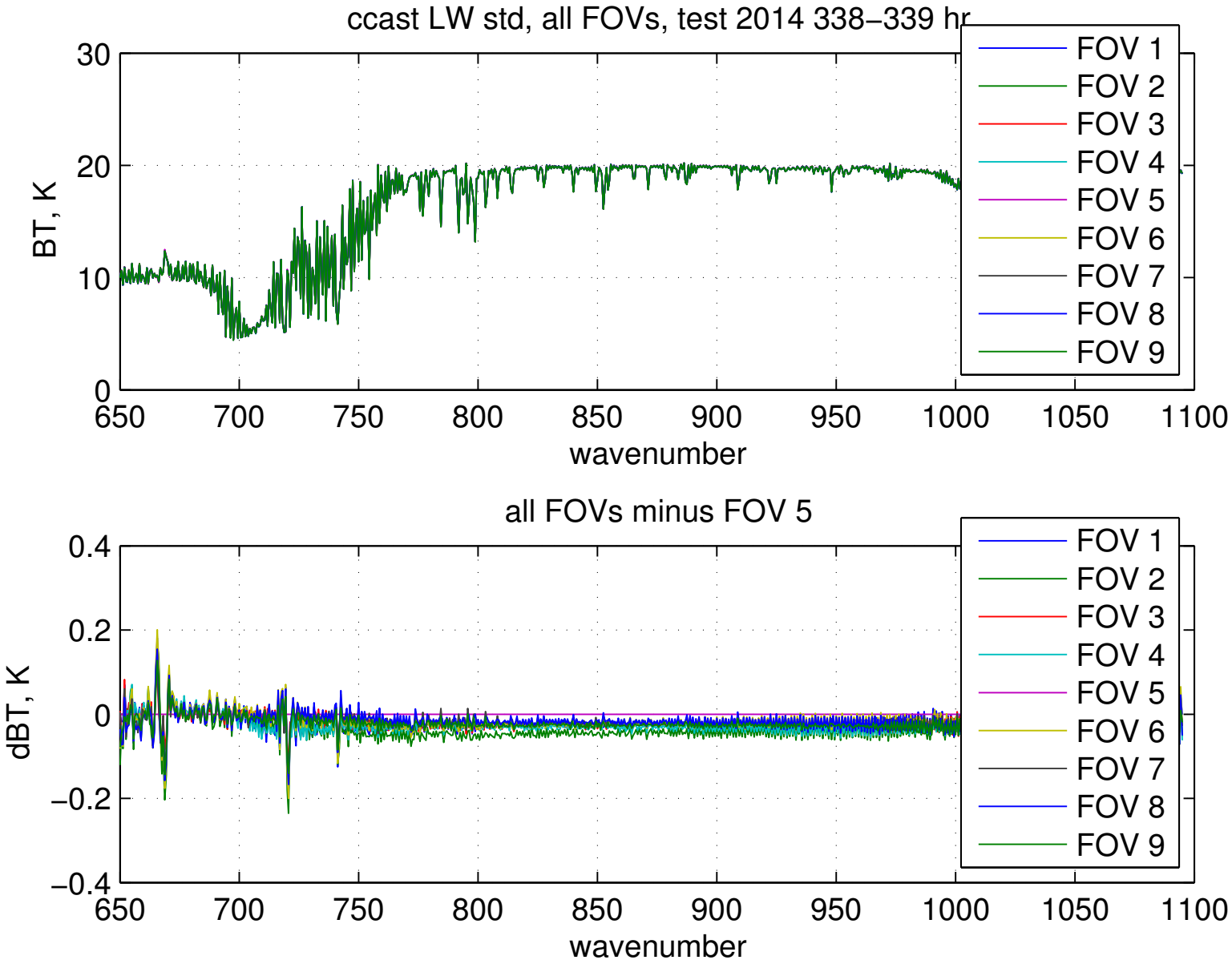
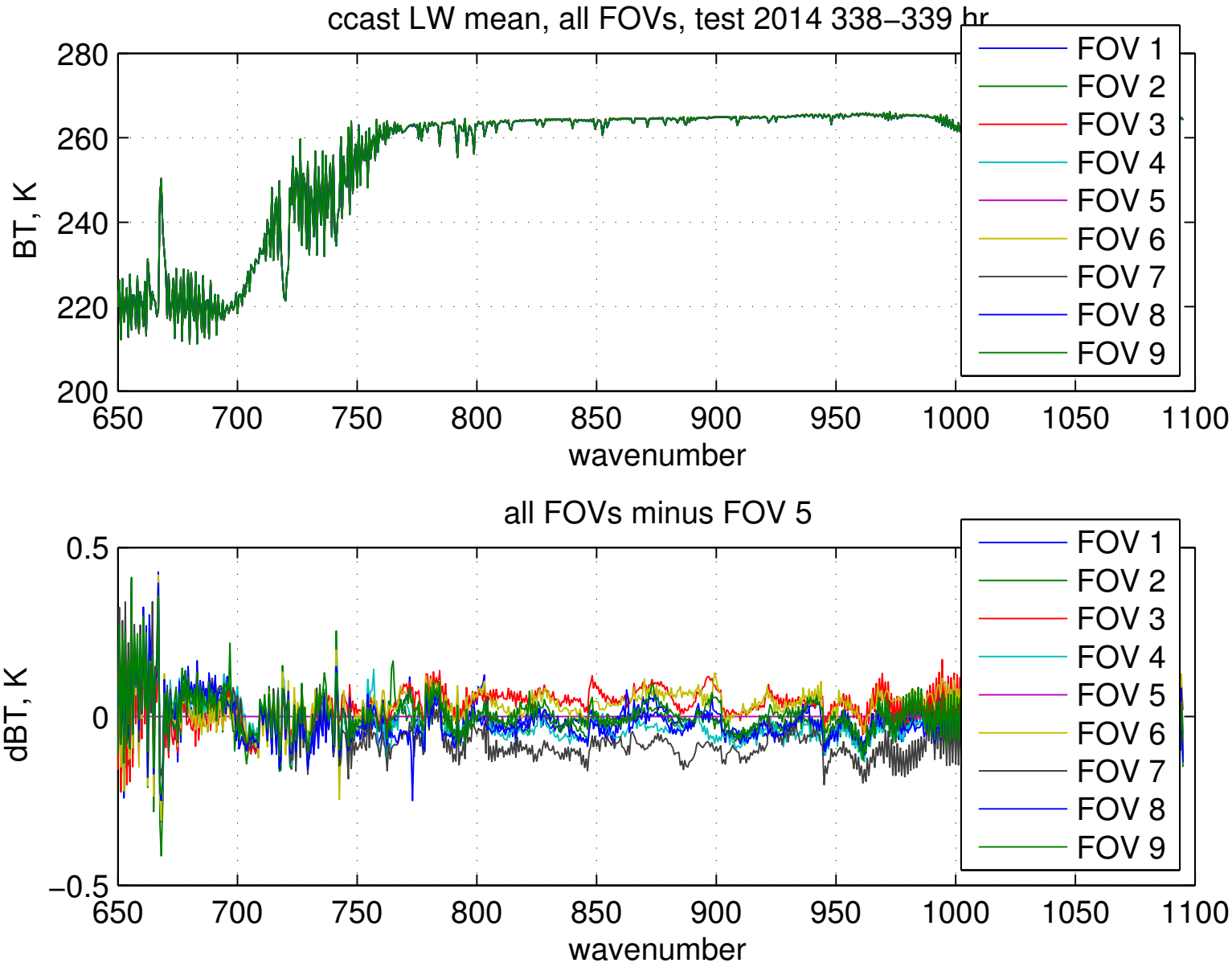


ccast LW avg all obs



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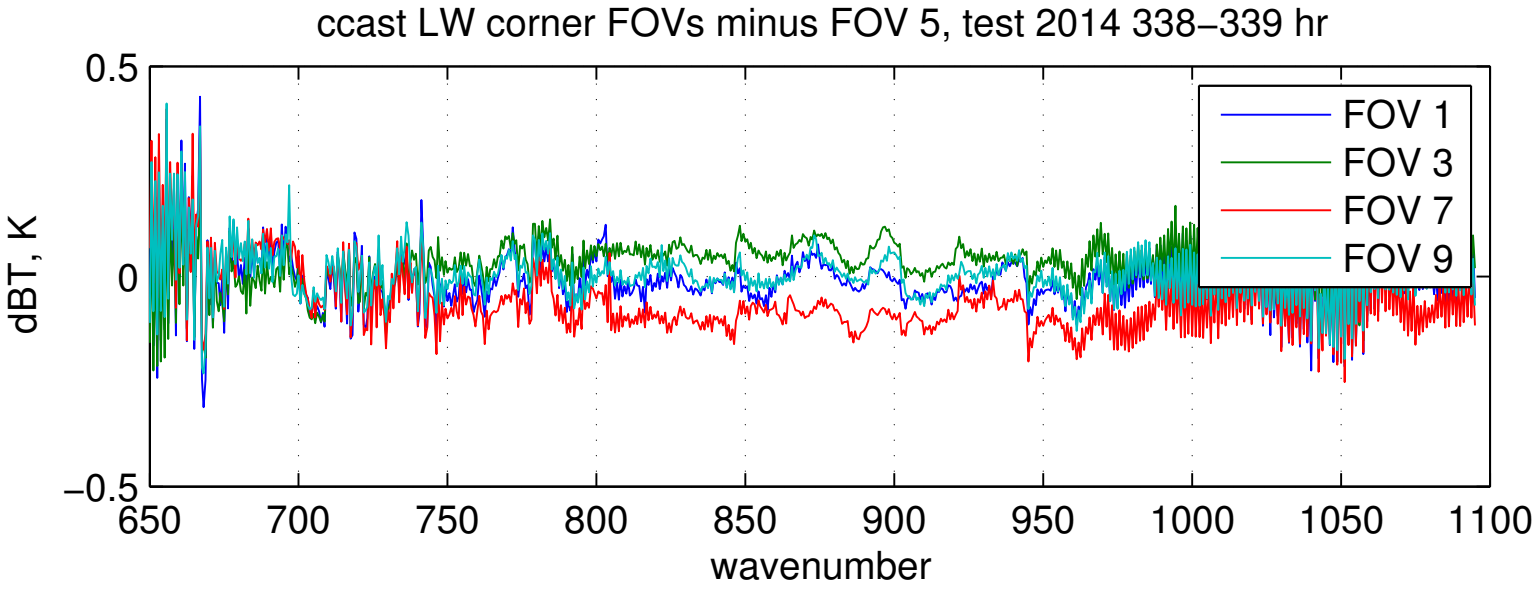

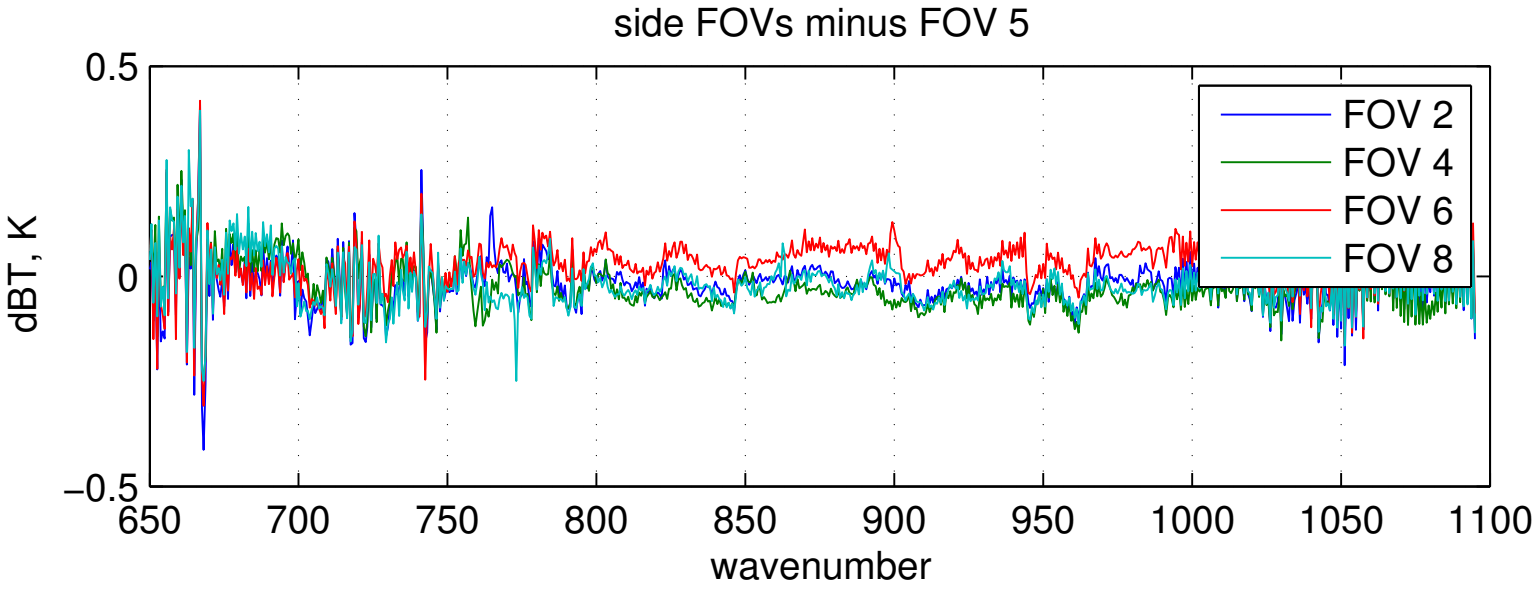

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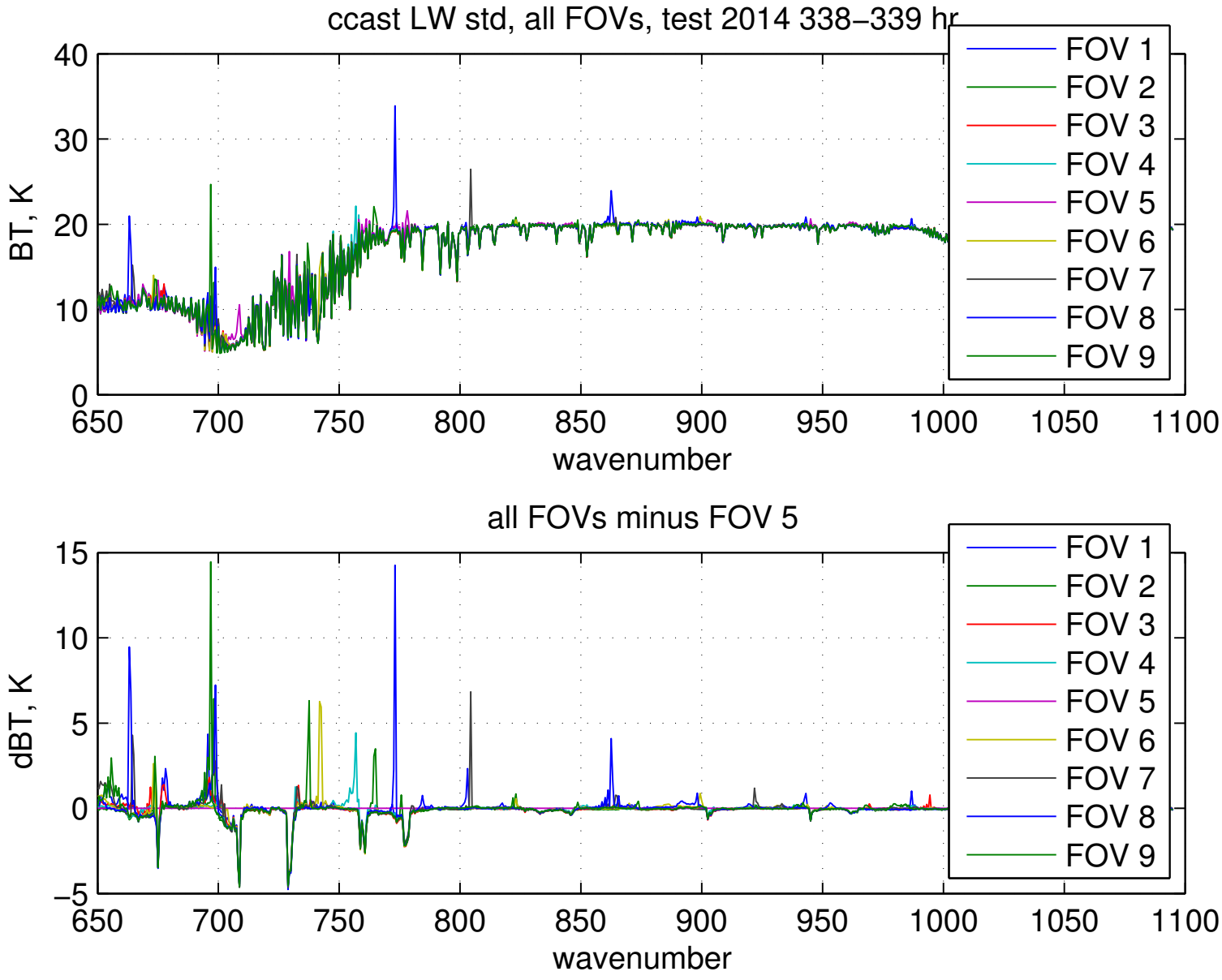
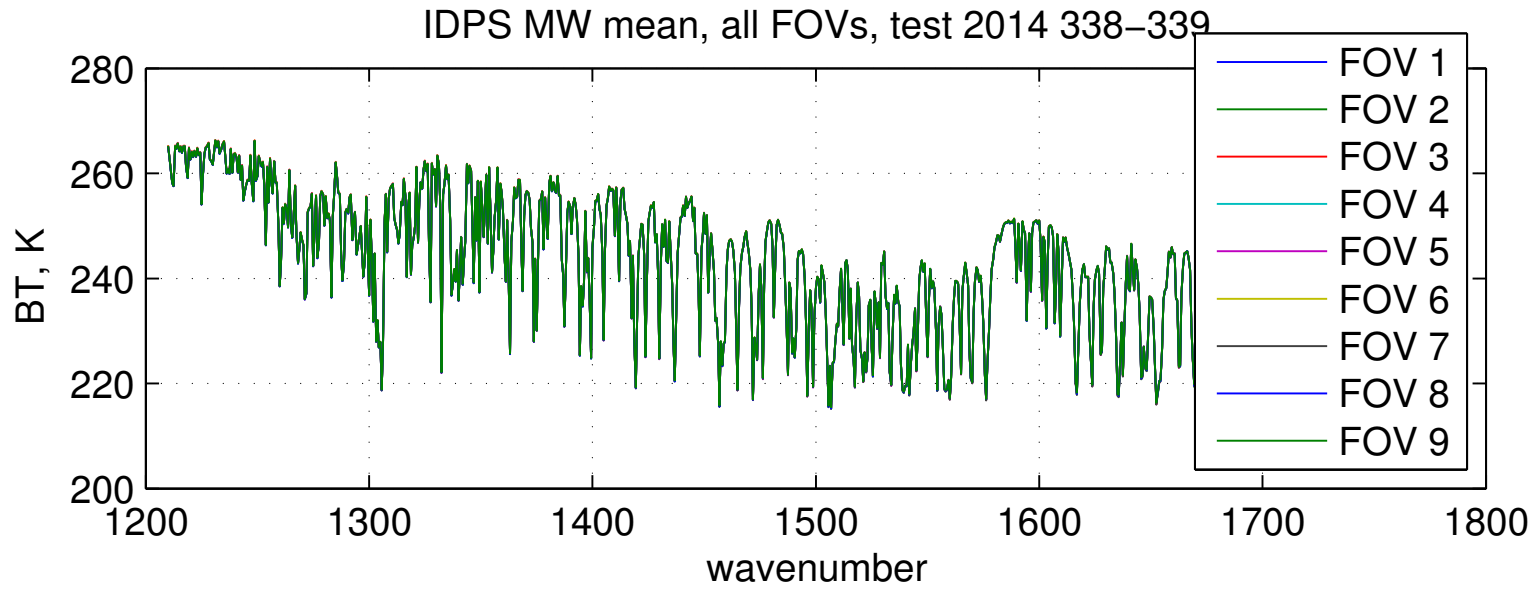
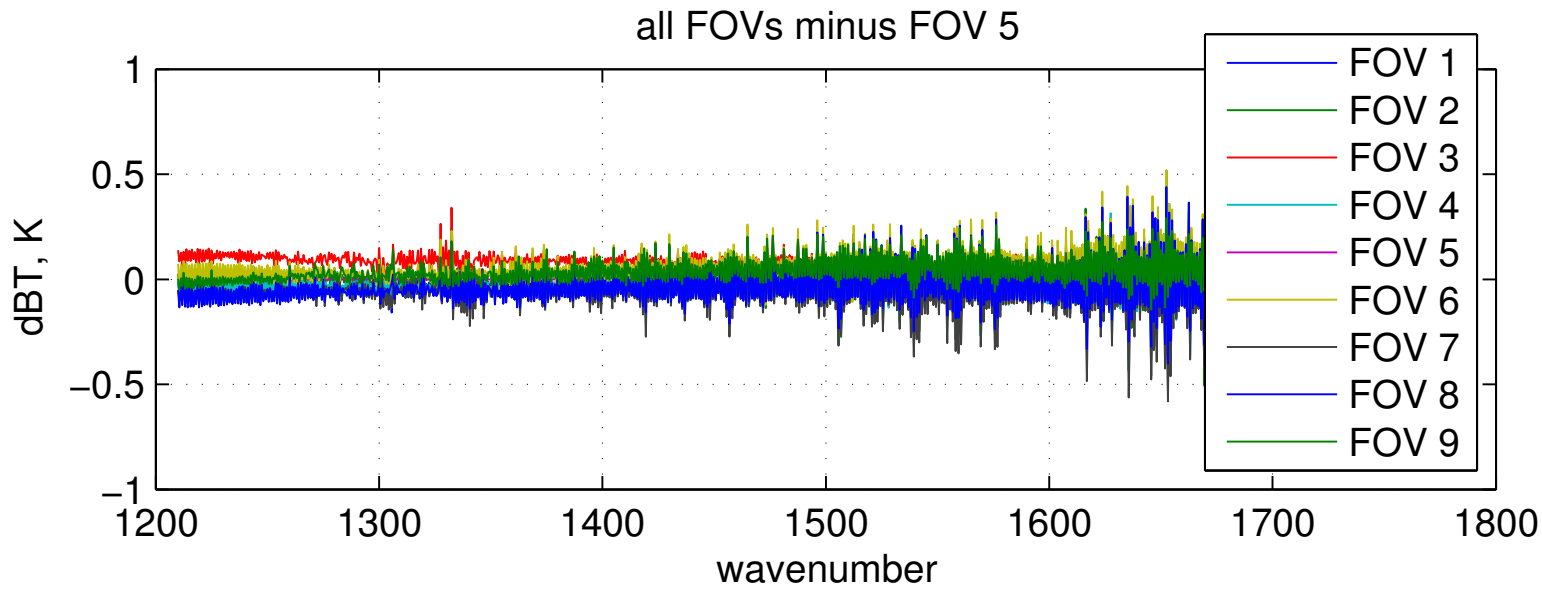
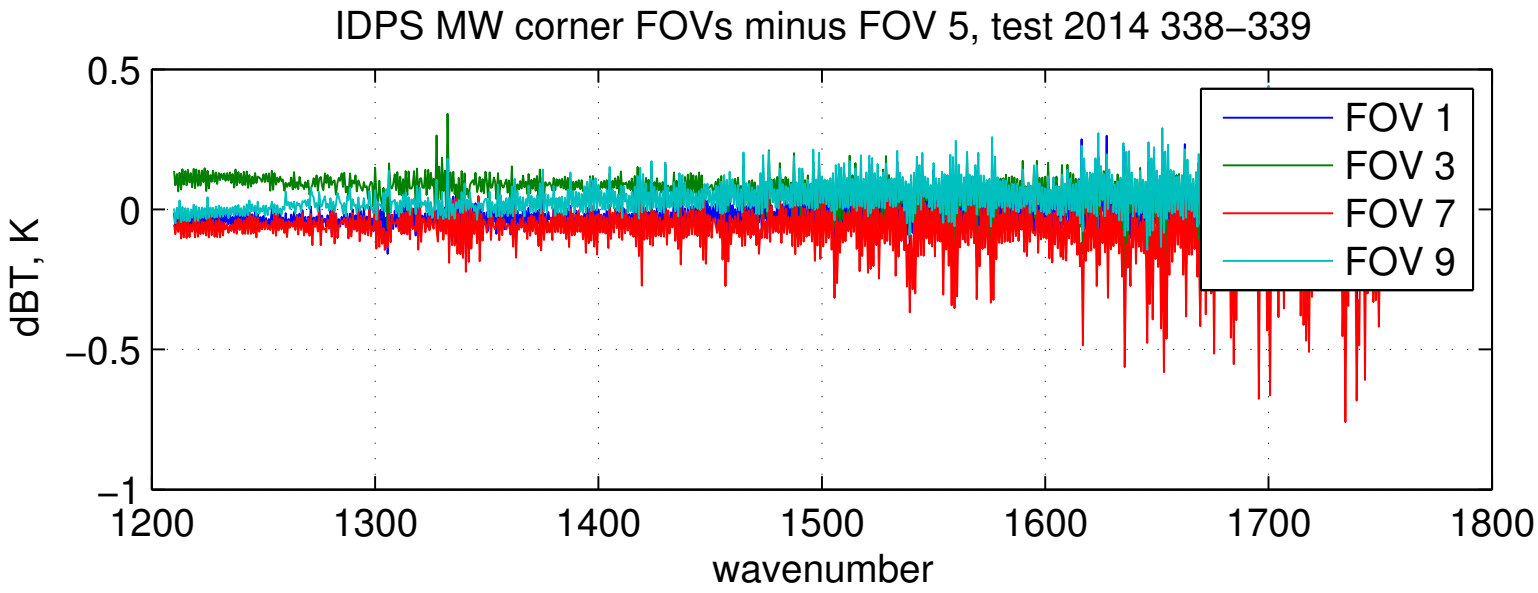


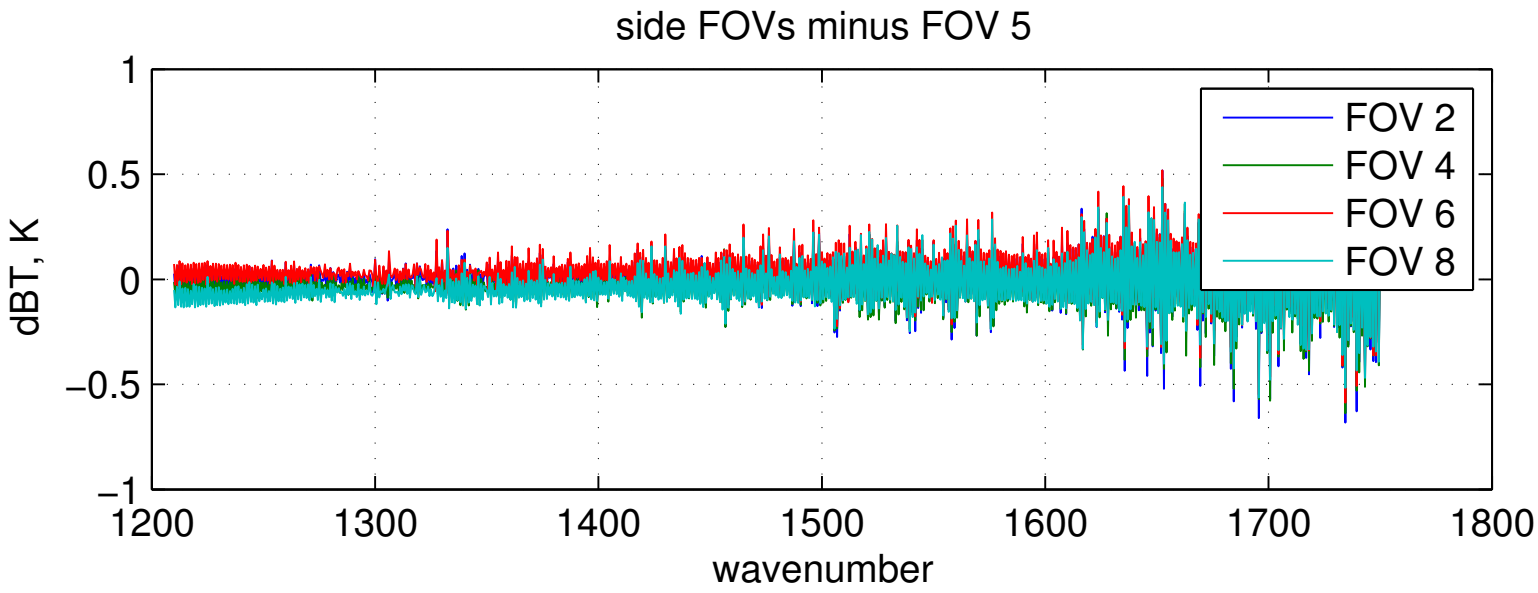
noaa MW avg all obs



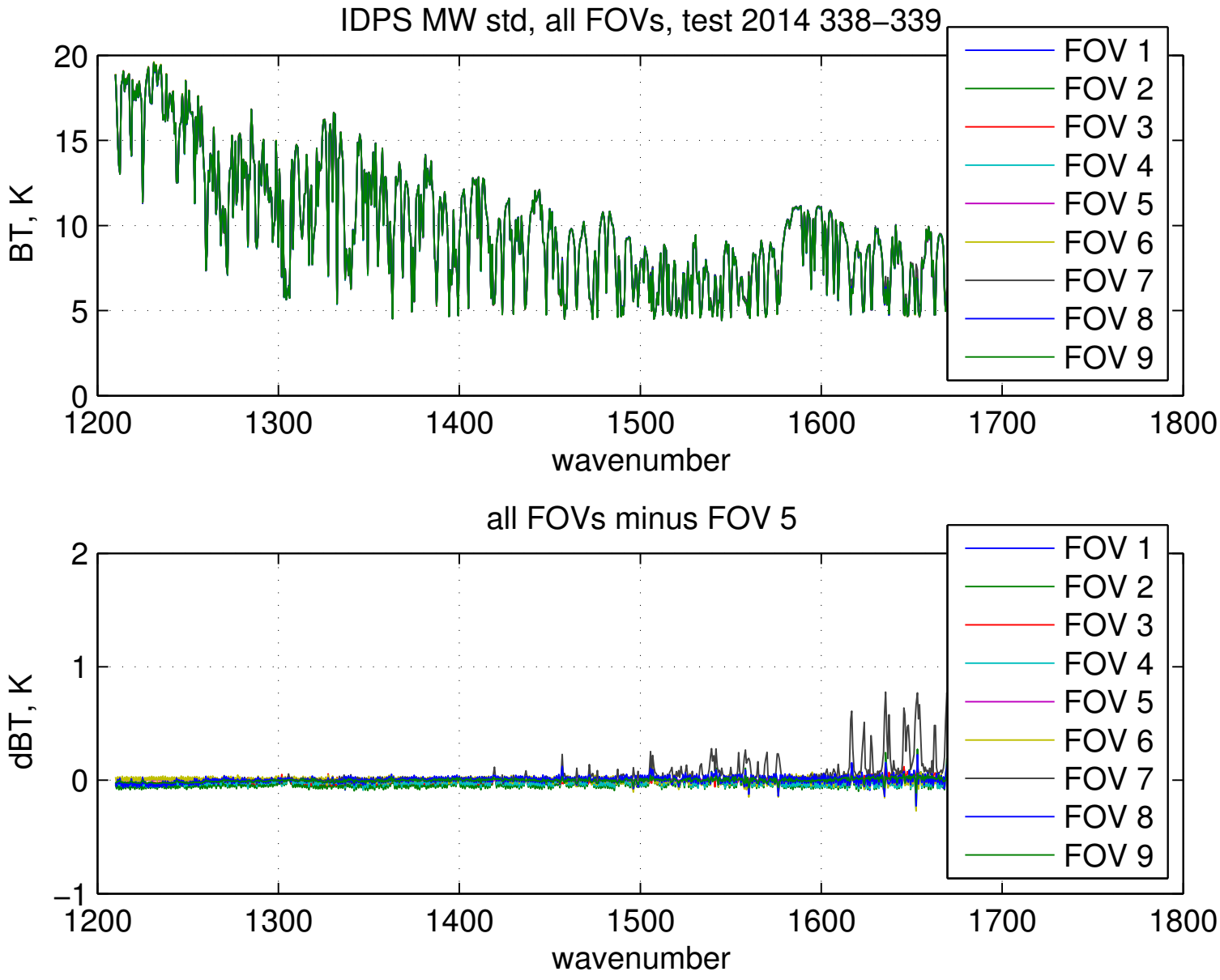


noaa MW dif all obs





noaa MW std all obs



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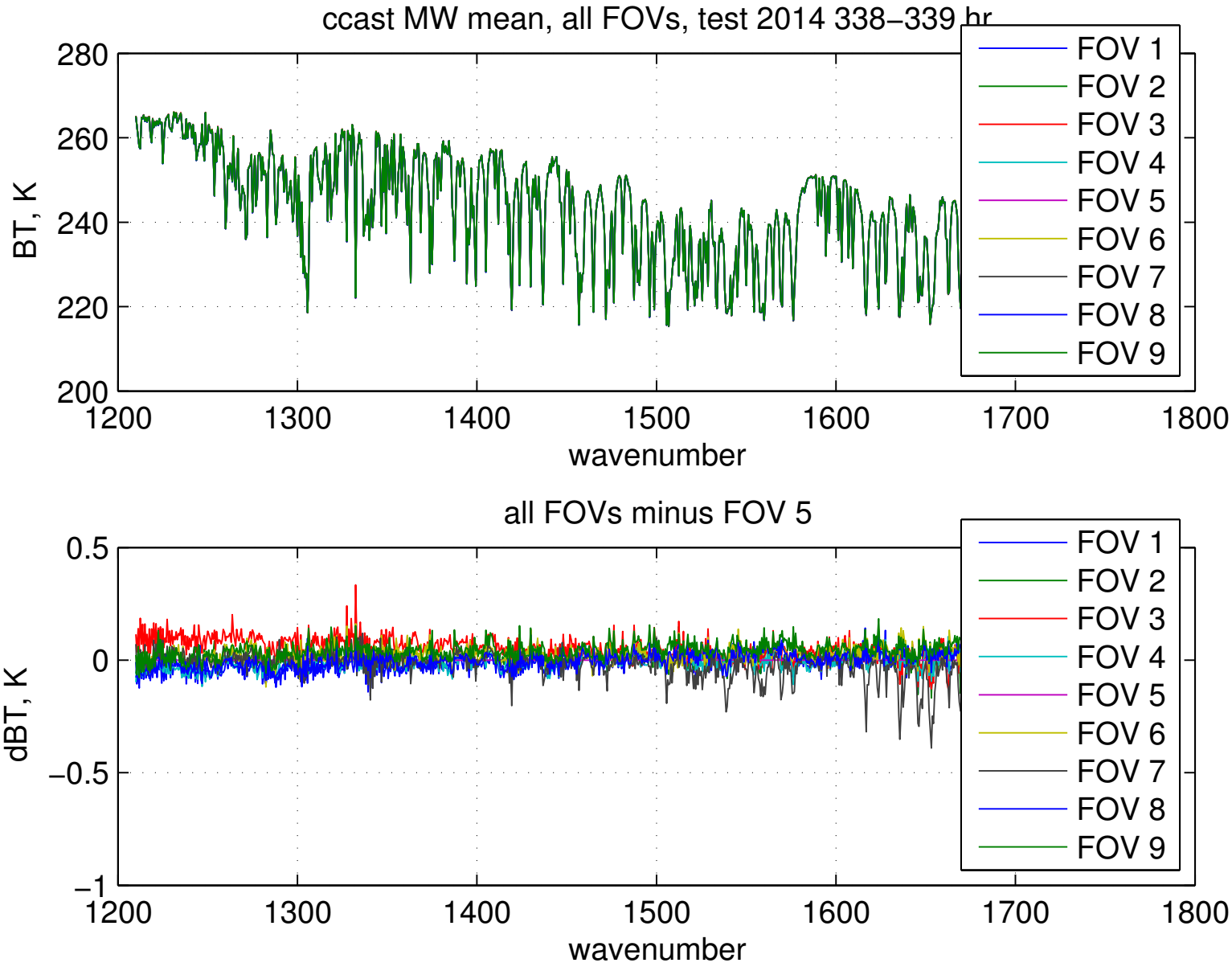

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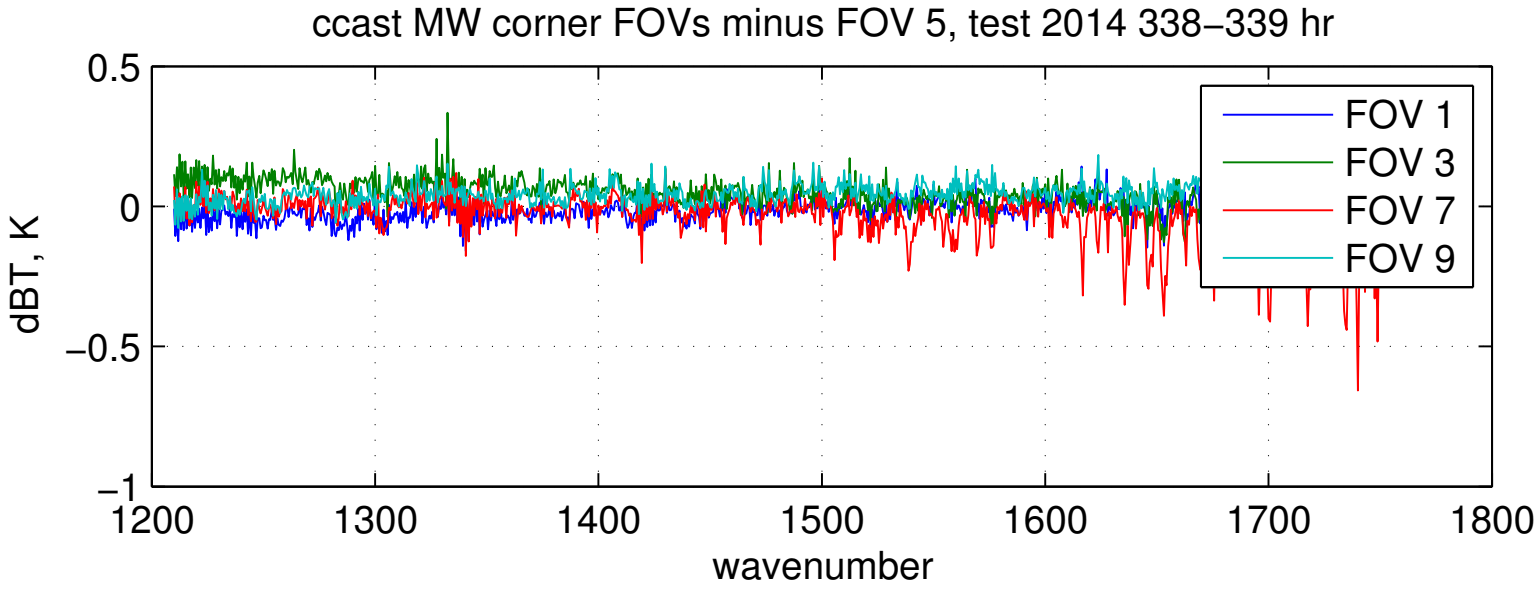

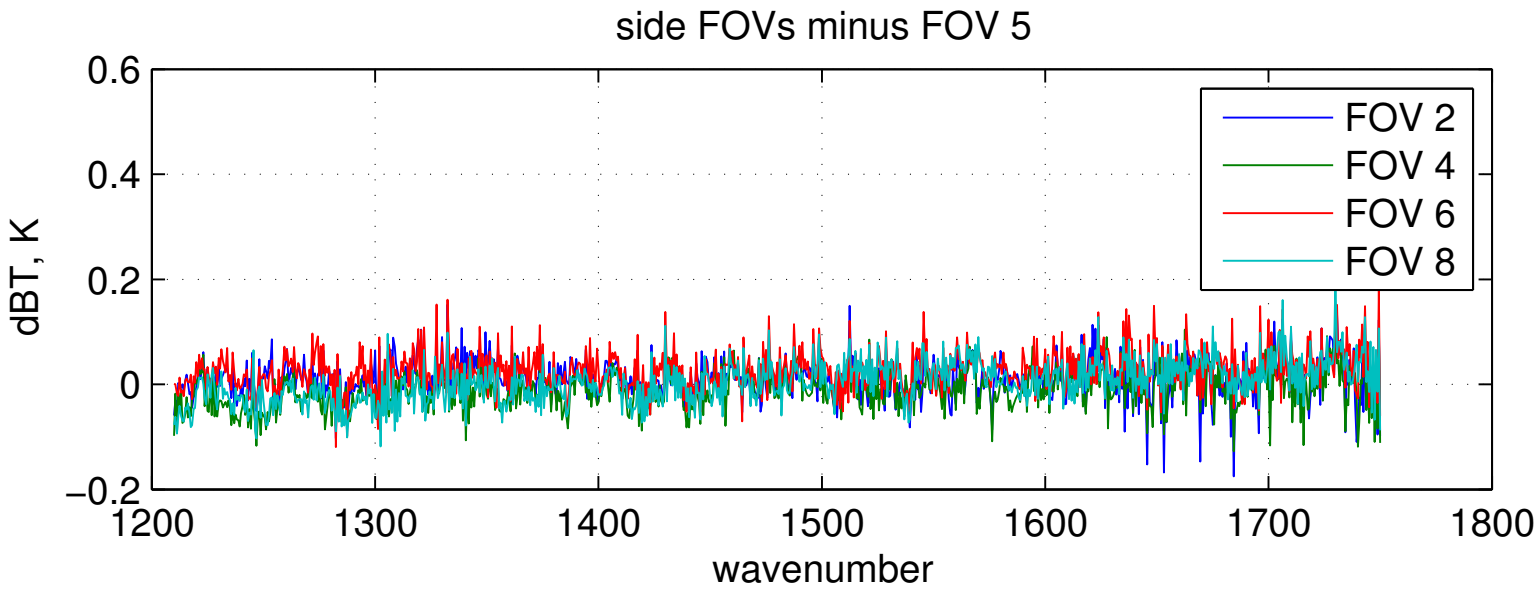

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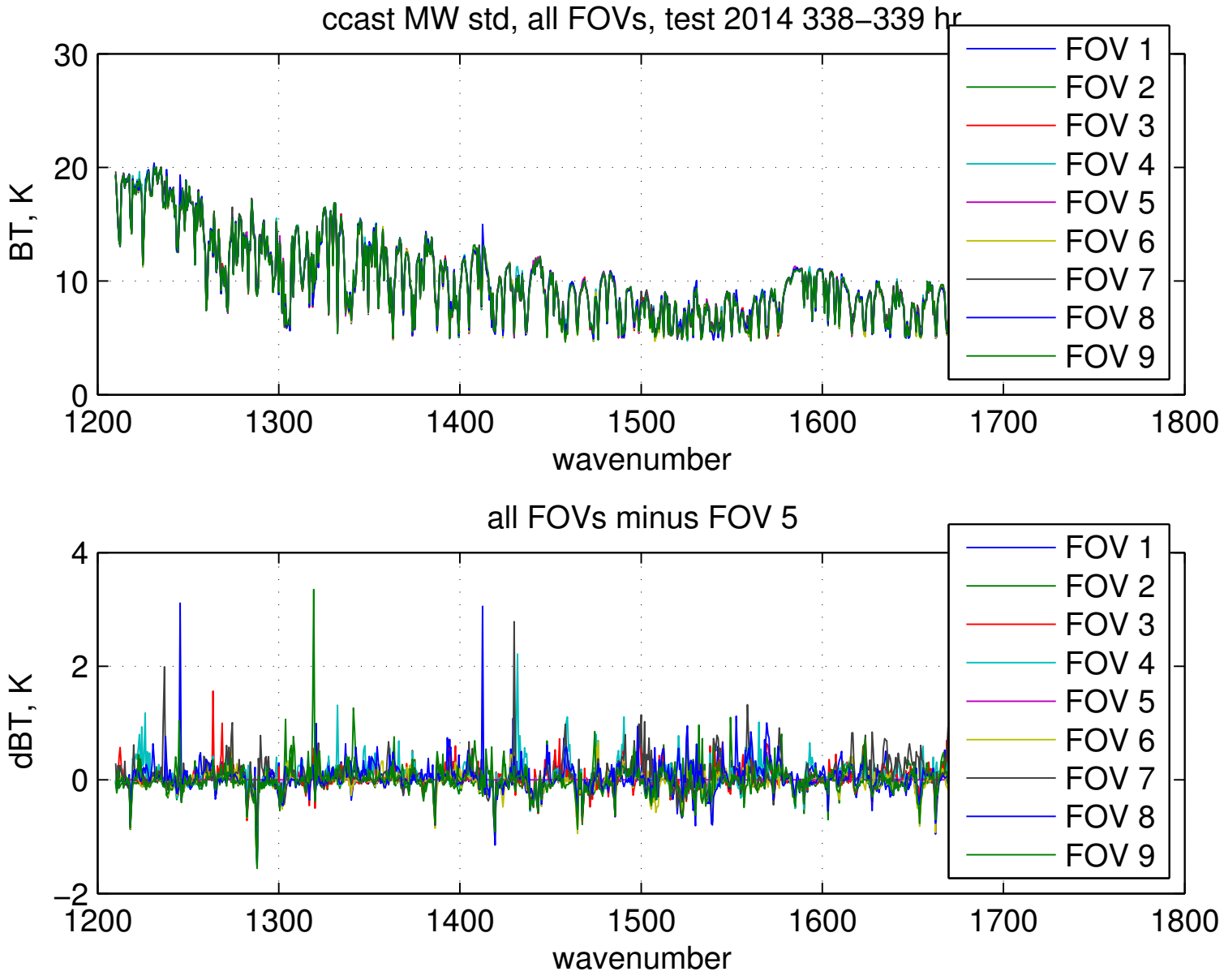
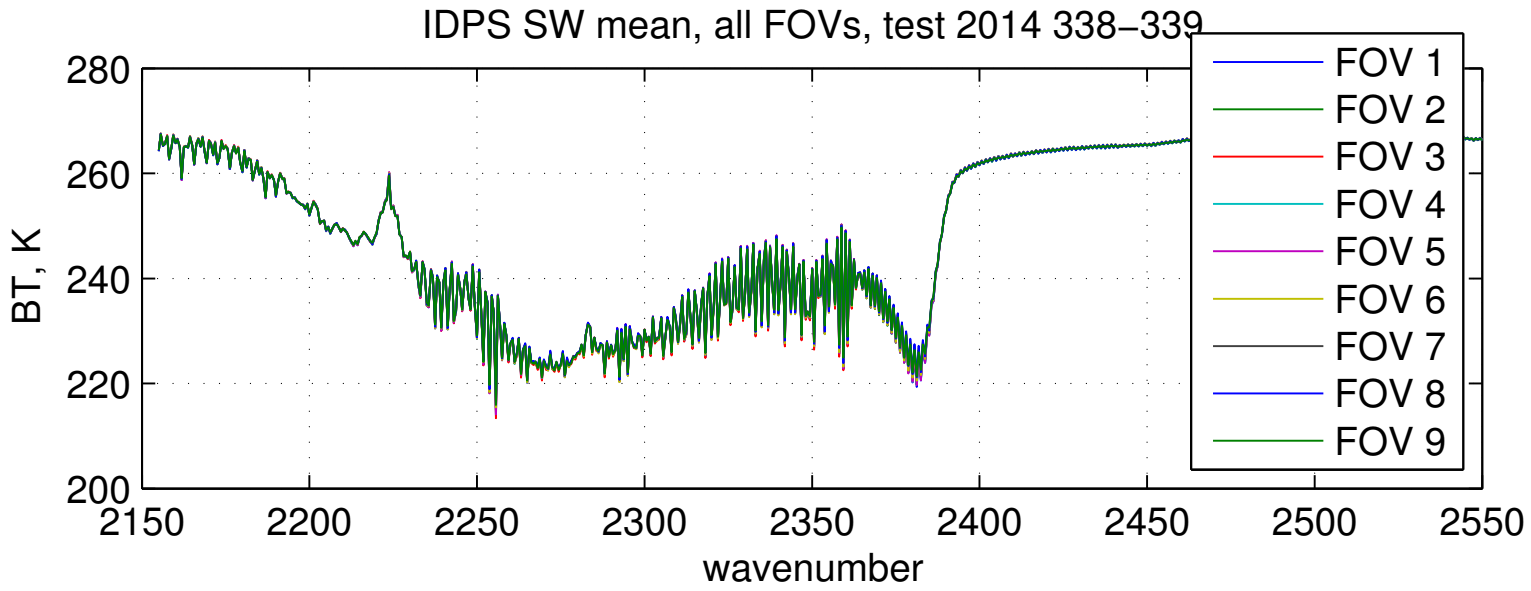
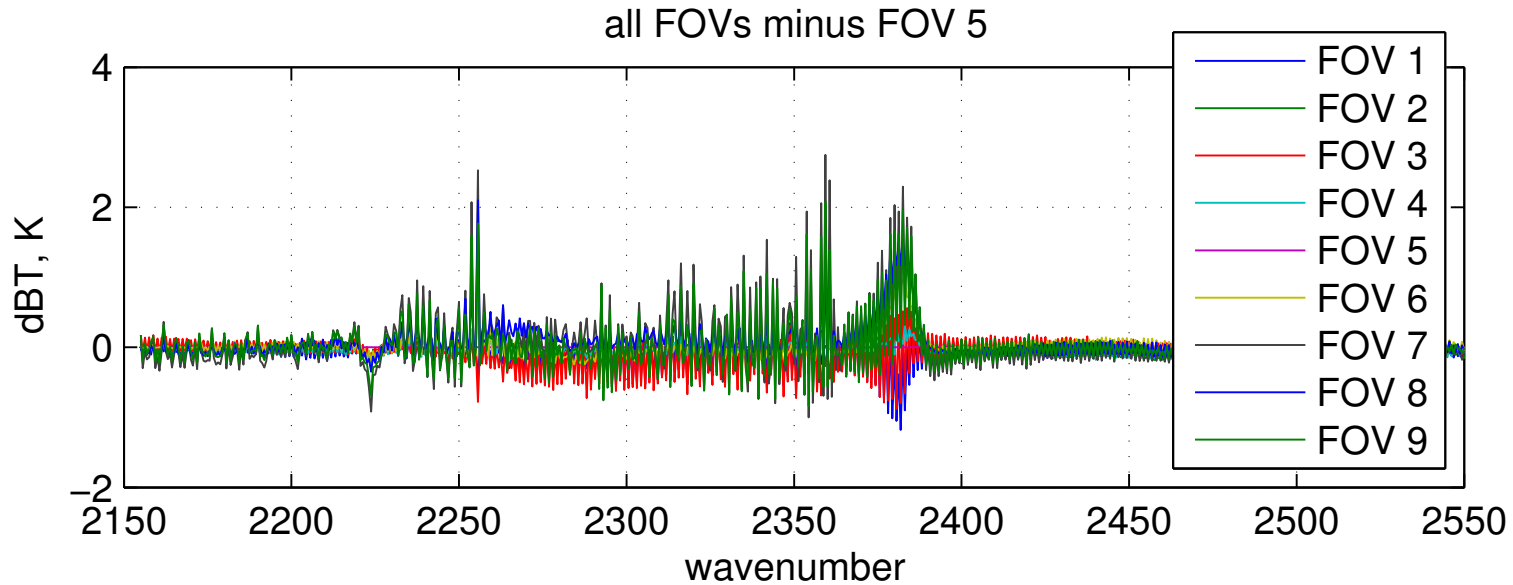
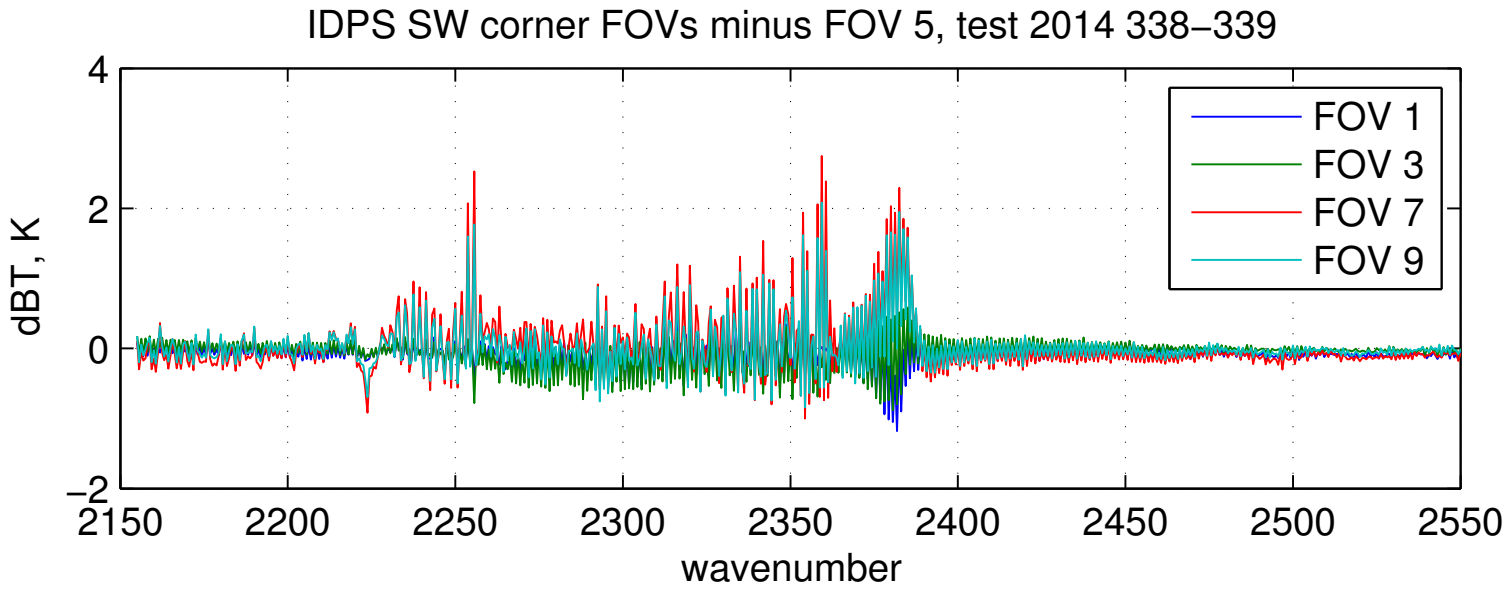


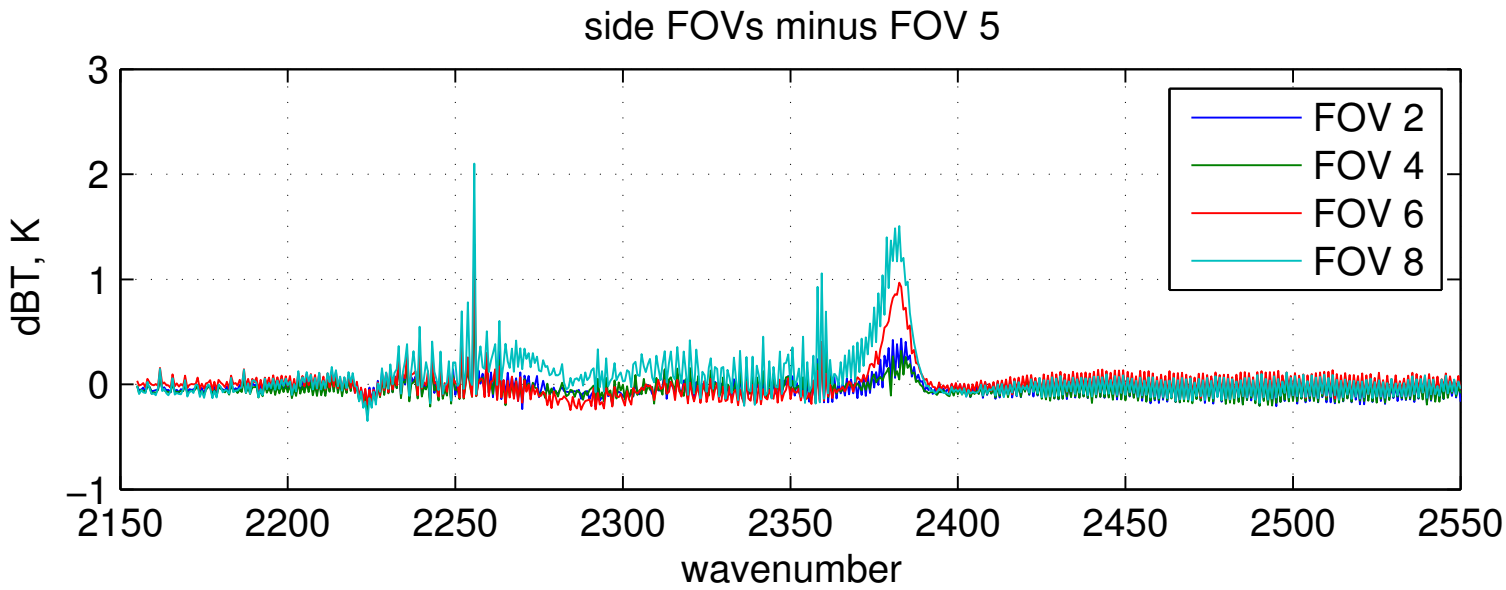
noaa SW avg all obs





noaa SW dif all obs





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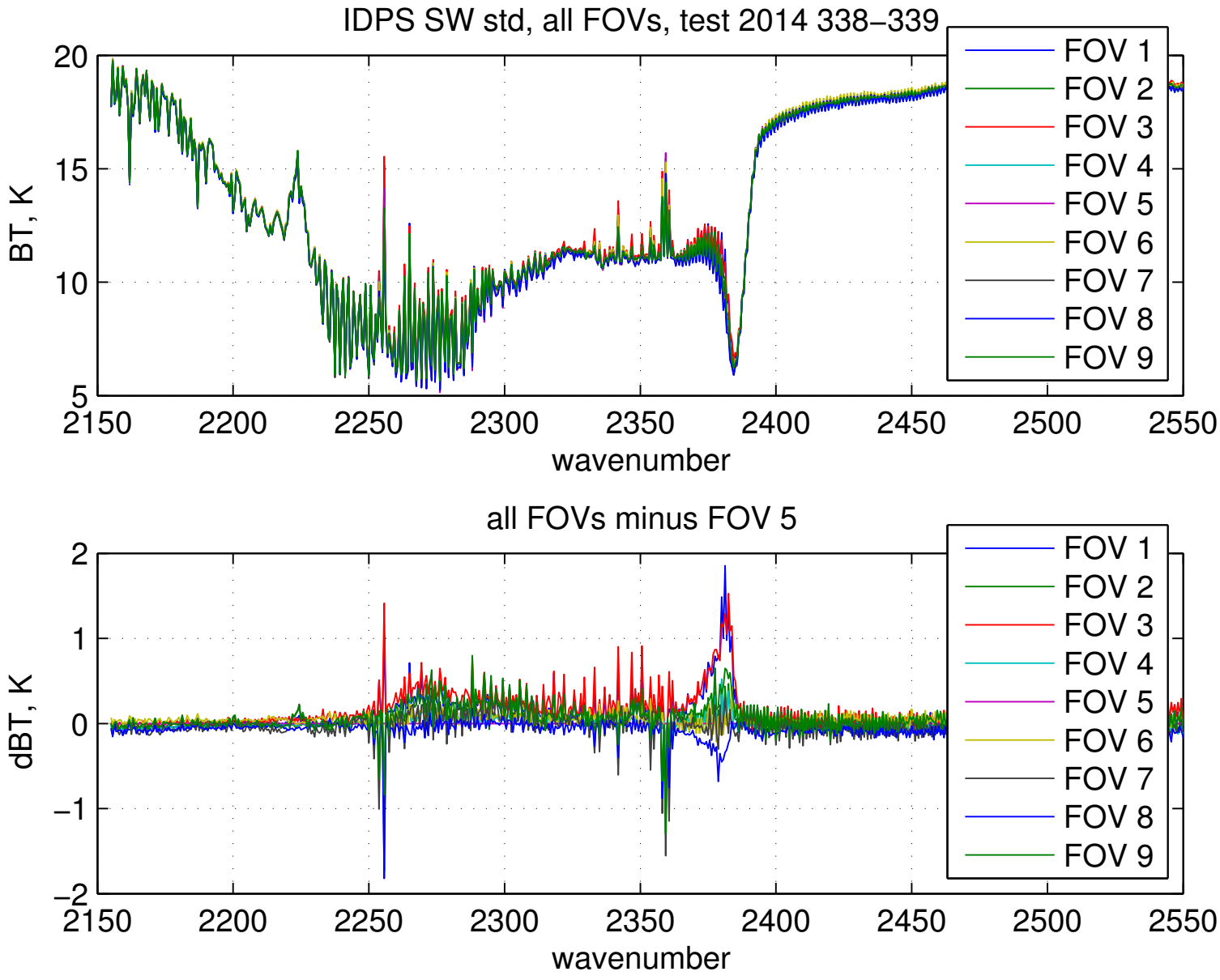

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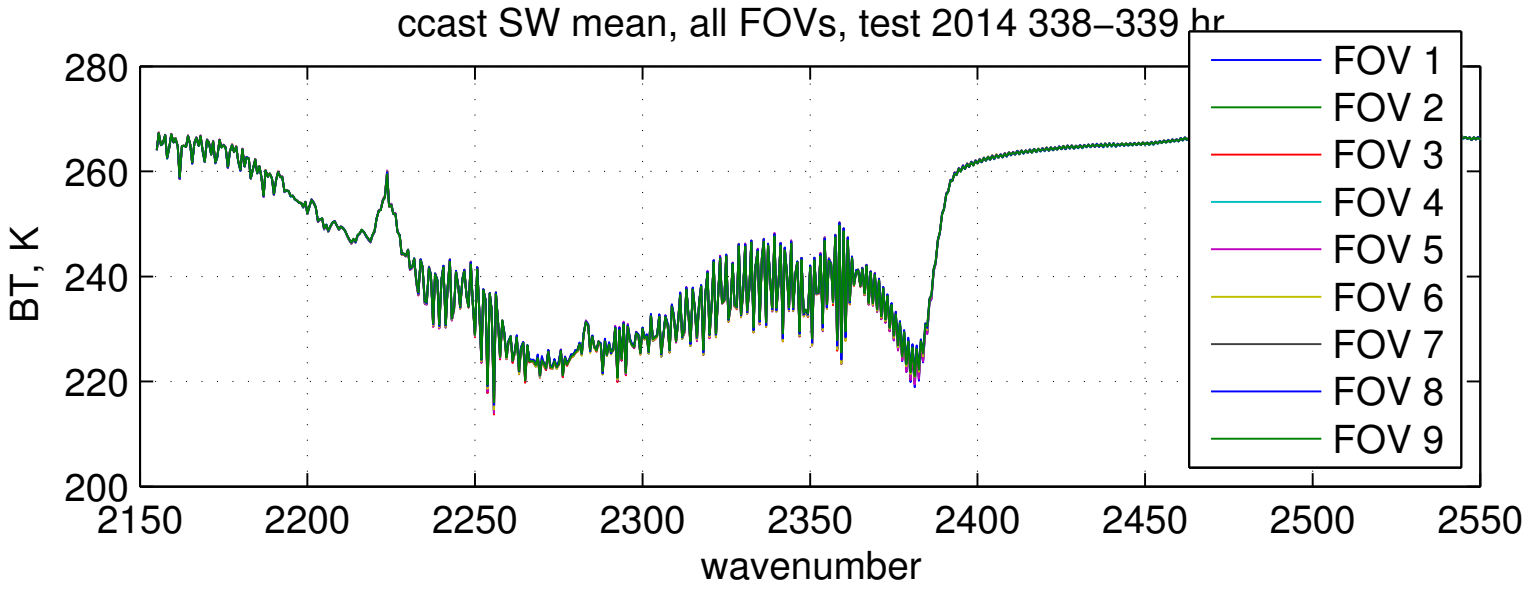

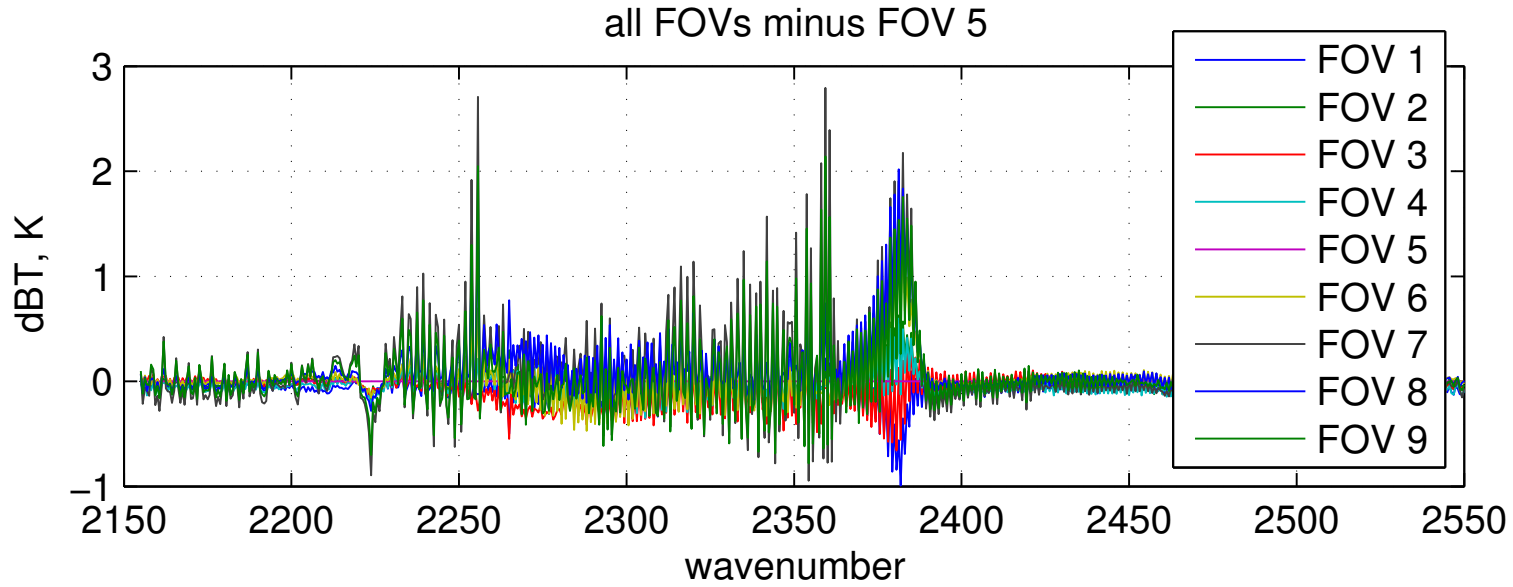

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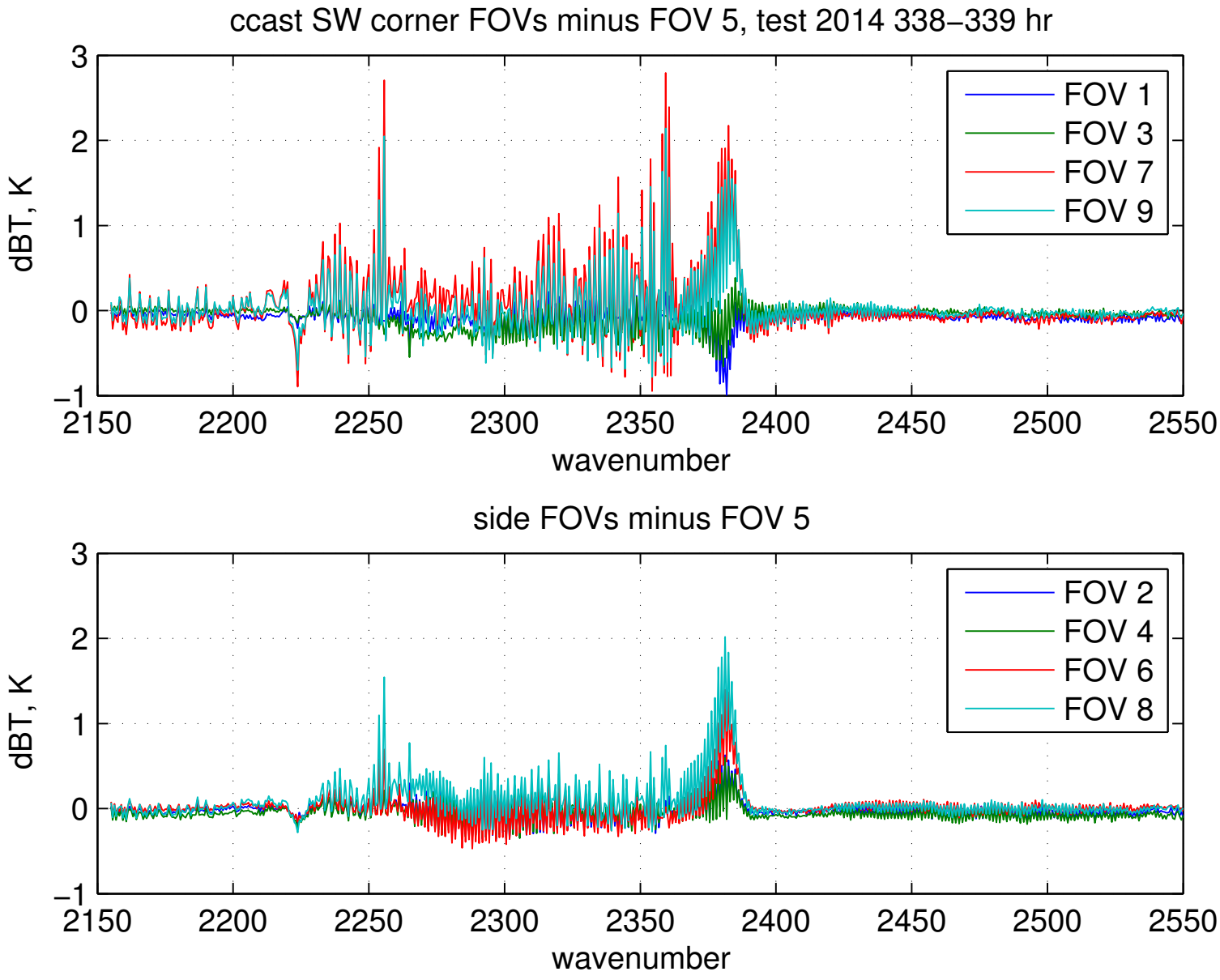

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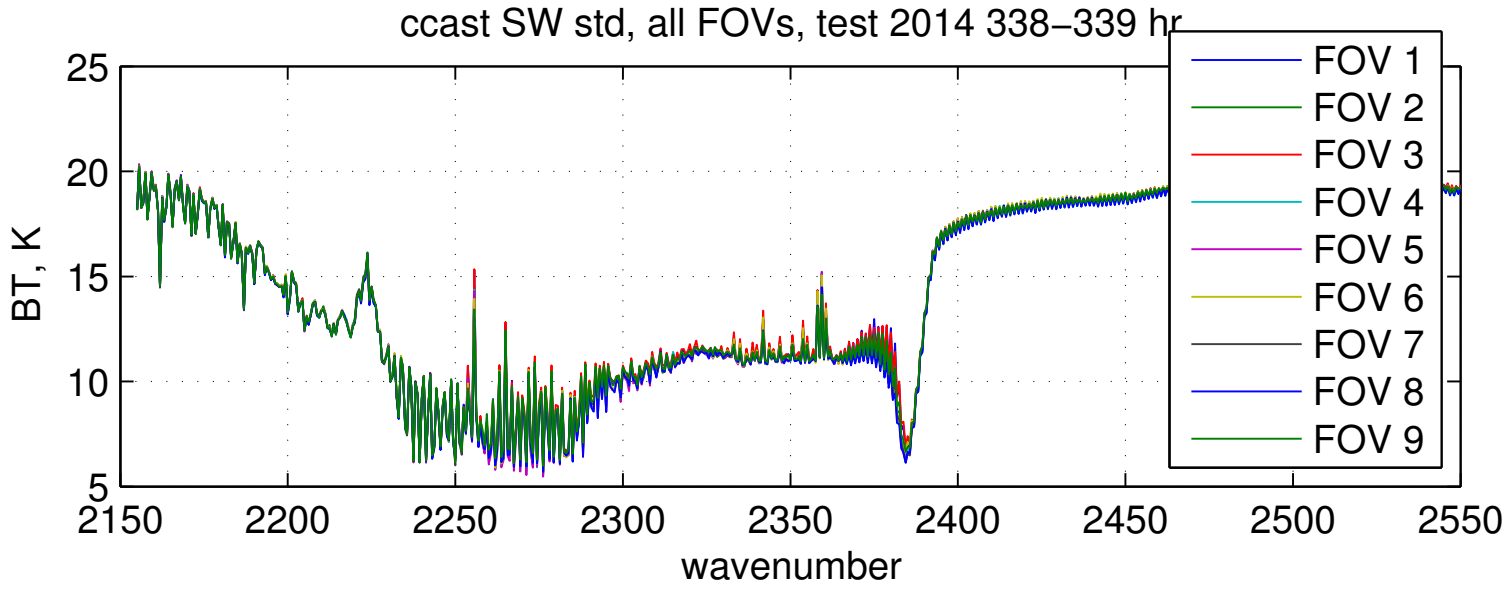

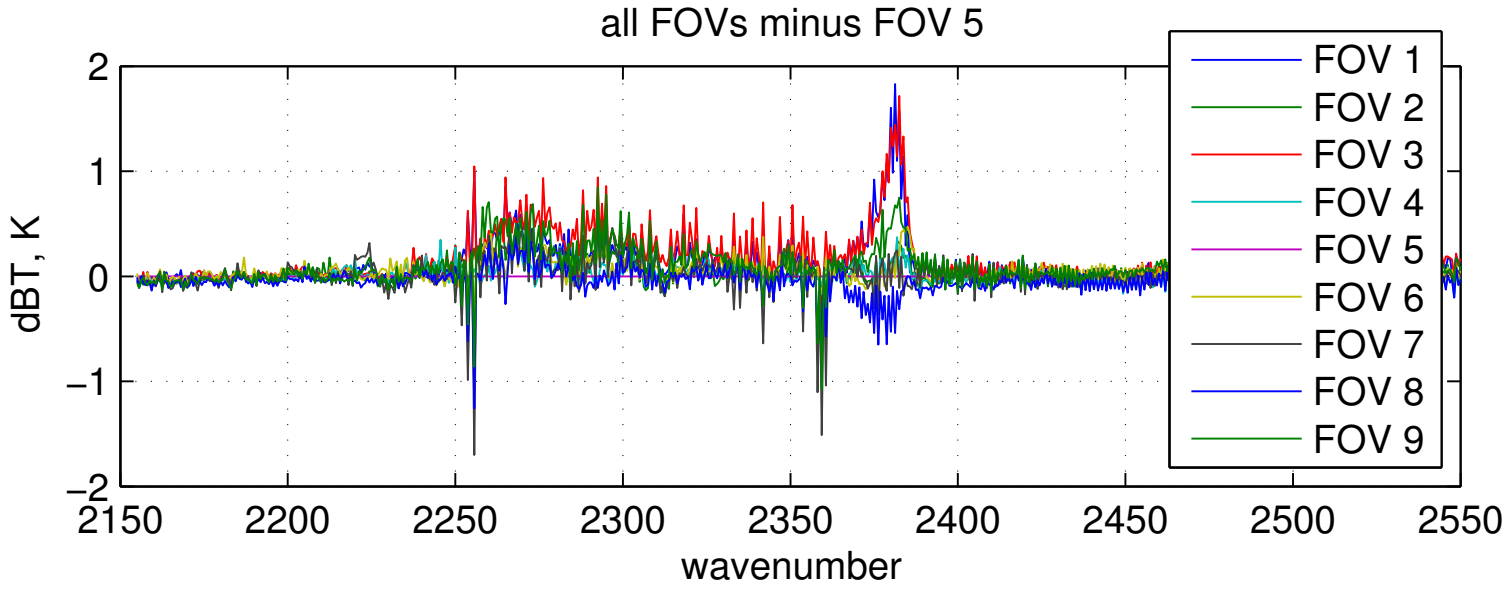

notes and conclusions

- this is just a preliminary draft
- noaa and ccast results were generally similar
- results must be interpreted with caution because the ccast data set was half again the size of the noaa set
- nonlinearity correction was done with UW a2 values
- the calibration equations we used are as shown in earlier presentations
- to do
  - show noaa vs ccast double differences
  - use the same sets for these comparisons
  - ccast needs better L1b QC