

Multiple MP-3000 Cryogenic Calibration Comparison

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Sent: Tuesday, January 20, 2015 4:40 AM

To: Stick Ware

Subject: AW: WG: J-CAL Lindenberg experiment

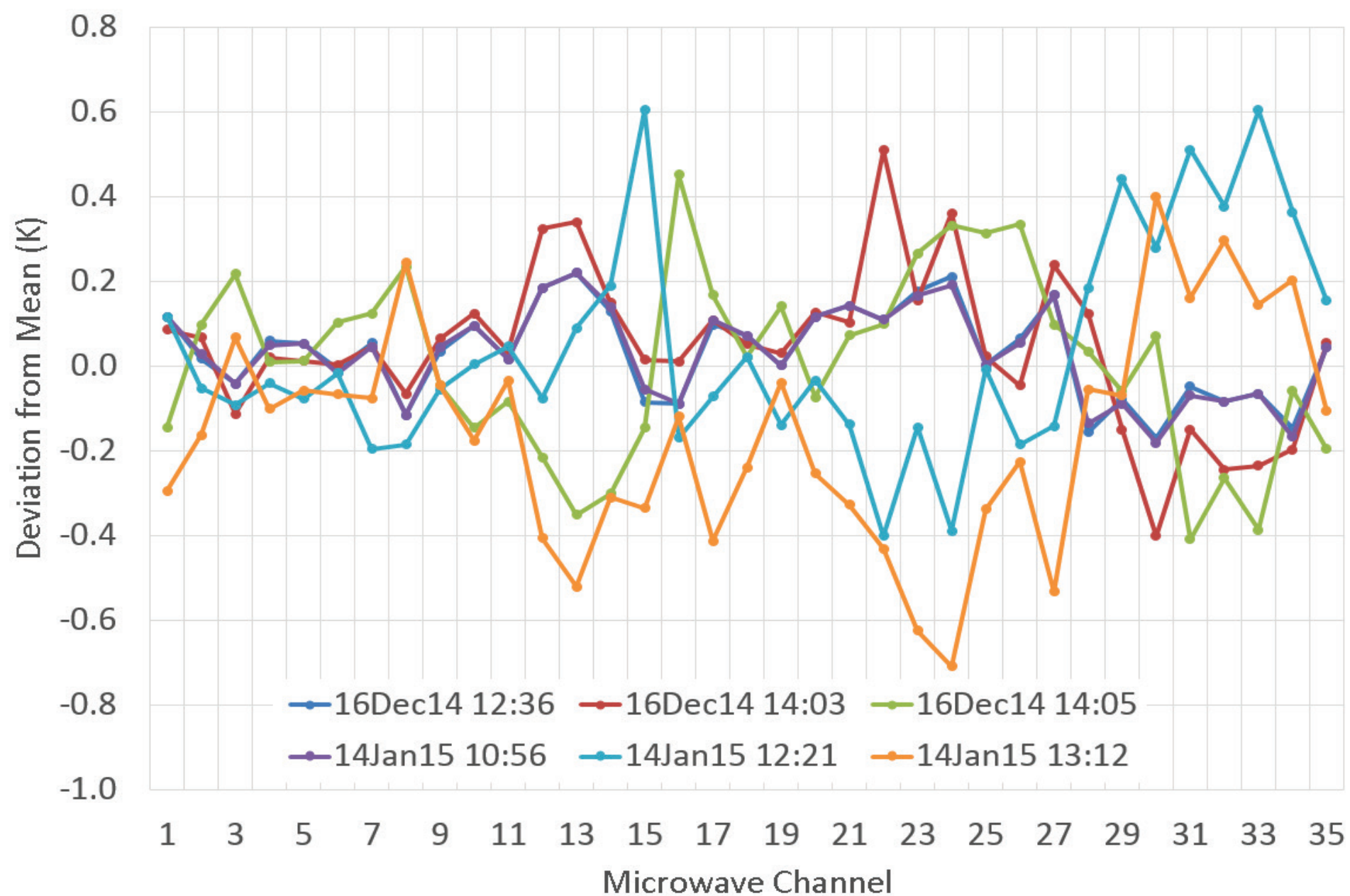
Hello Stick:

We performed indoor calibrations on two different days with three calibration cycles each. Thereby two different liquid nitrogen targets were used. The results look quite similar, especially the first calibration on both days match perfectly.

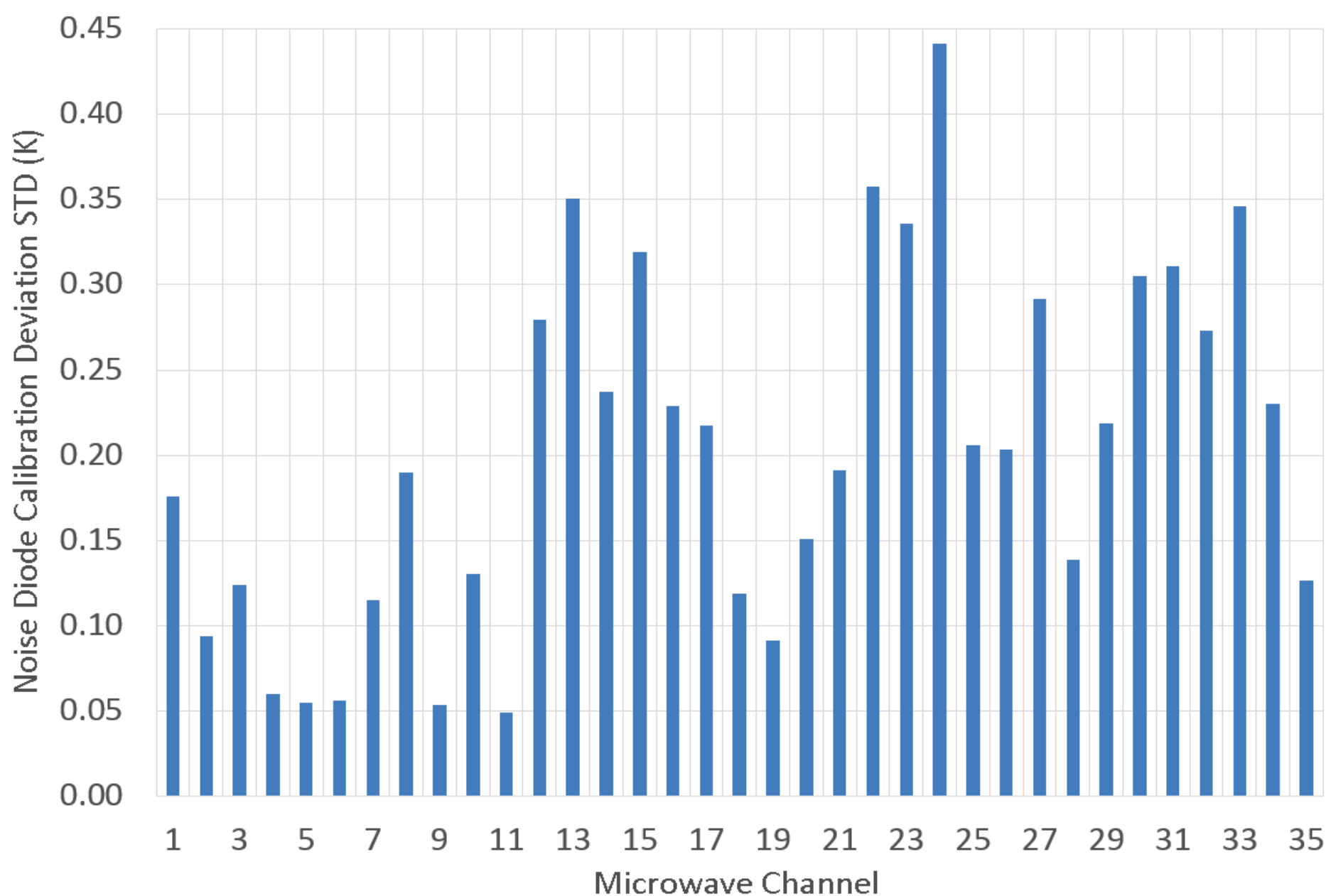
I attached a figure illustrating the results. Deviations of ND temperature versus mean value of all 6 calibrations carried out in Lindenberg are displayed.

Best regards,

Jürgen



Deviation from mean of six consecutive MP-3039A calibrations at Lindenberg using two different targets; all channels within specification ($<0.5\text{K}$).



Standard deviation of six separate MP-3039A calibrations using two different targets; all channels within specification (<0.5 K)

Summary

- Multiple MP-3000 calibrations with different cryogenic targets were conducted by the German Weather Service
- All 35 microwave channels including 21 K-band (22-30 GHz) and 14 V-band (51-59 GHz) channels calibrated and compared
- Six consecutive calibrations agree for all channels within specification (0.5 K)