L1B Gain Oscillation

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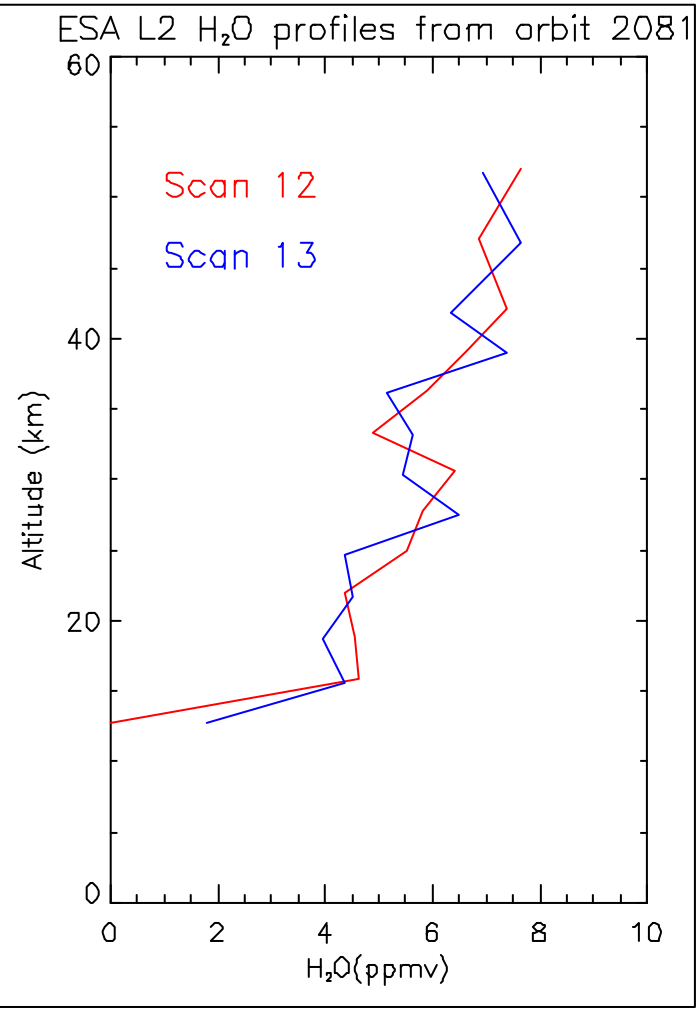

- Oscillations are present in the L2 profiles.
- The oscillations are anti-correlated between adjacent scans.
- Origin of oscillations was traced back L1B radiances, and was attributed to th treatment of the non-linearity correction

L1B Gain Oscillation

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- New set of L1B data provided for Orbit 2081 in January, with new treatment of the non-linearity correction.

- Checked for systematic pattern in L1B radiances in bands A and AB

- Used the Oxford retrieval code (OPTIMO) to look at the effect on retrieved profiles.

(Retrievals from OPTIMO are more prone to oscillations than the ESA Level 2 product)

Gain oscillations in L1B

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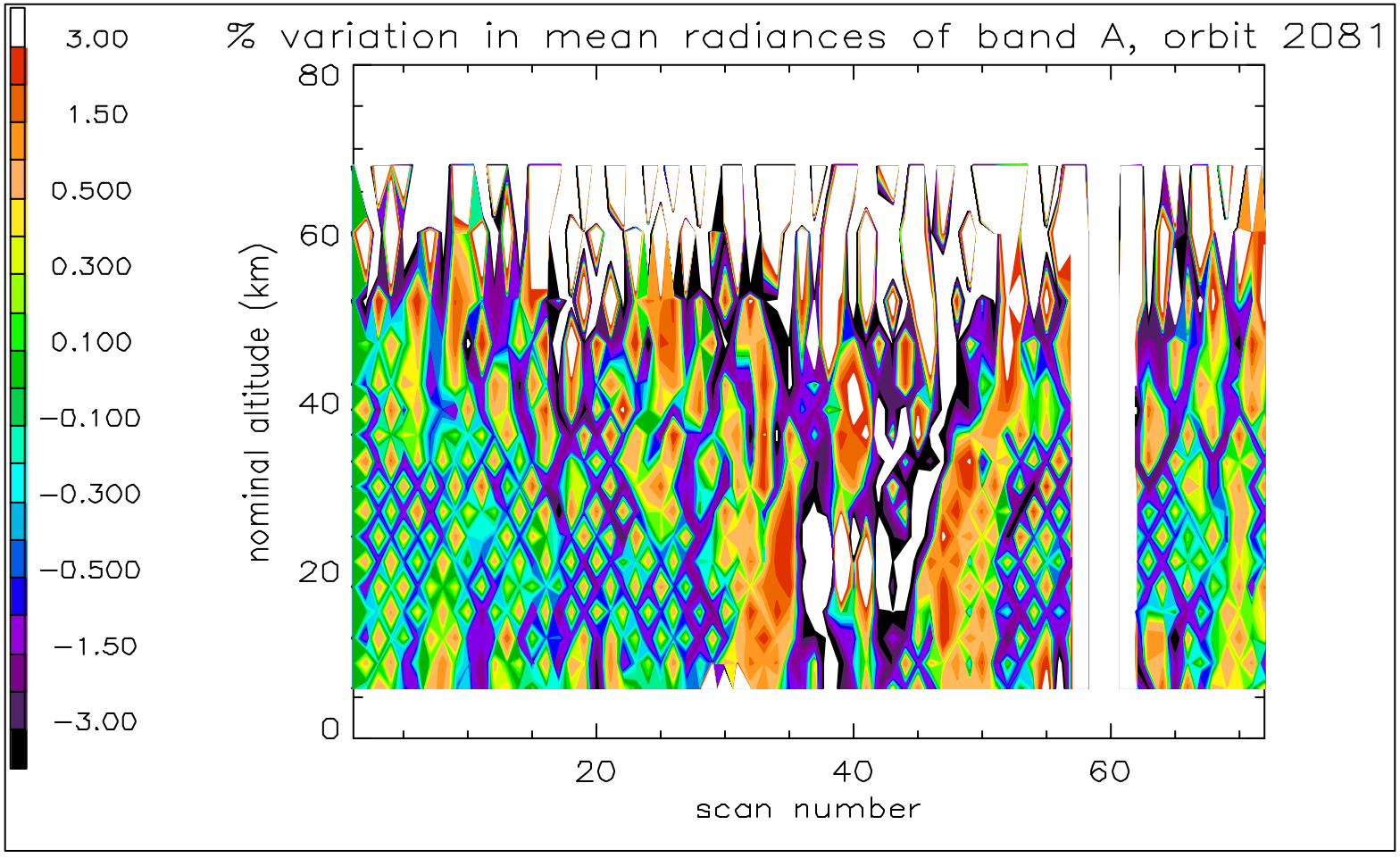

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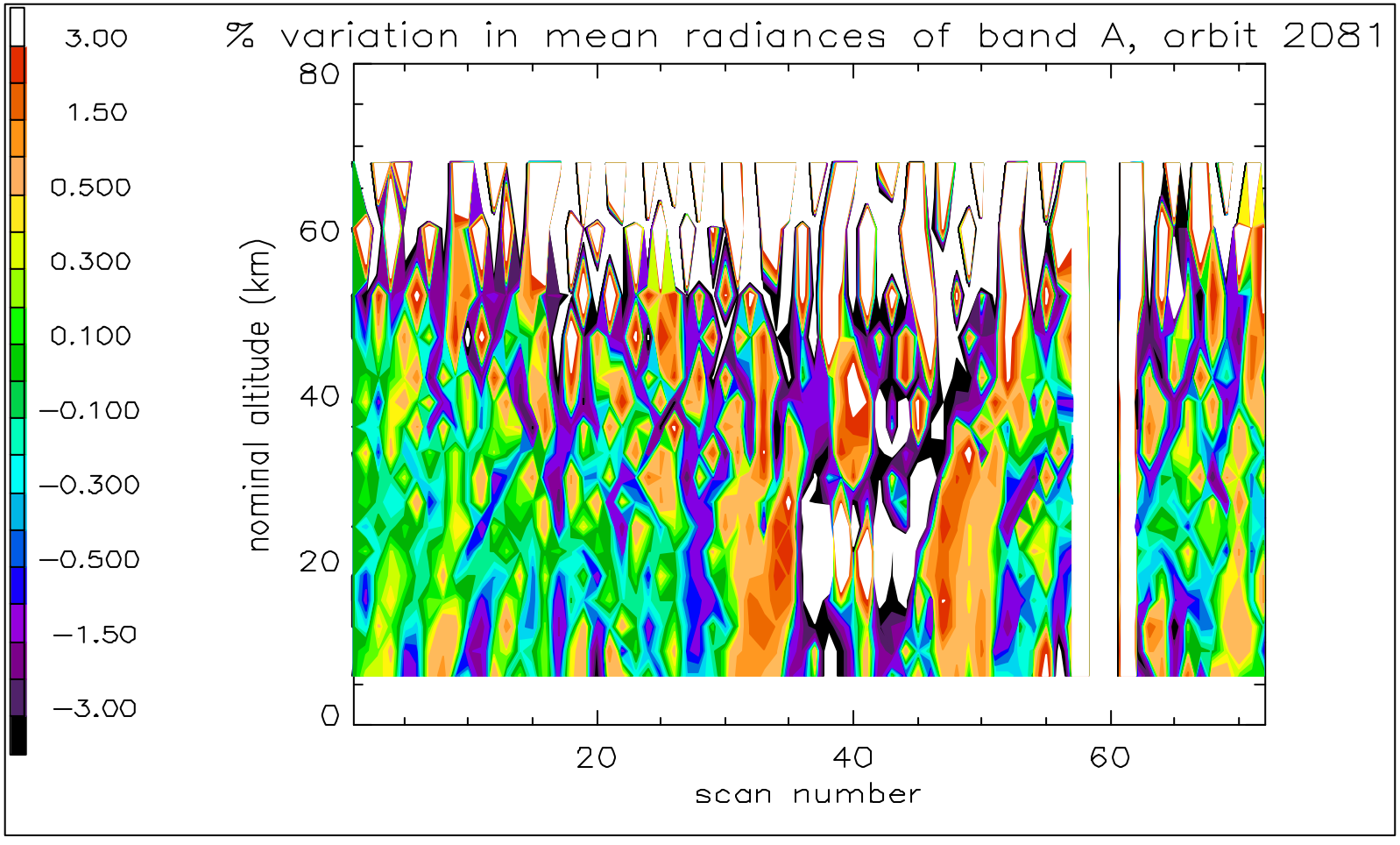

OPTIMO retrieved temperature

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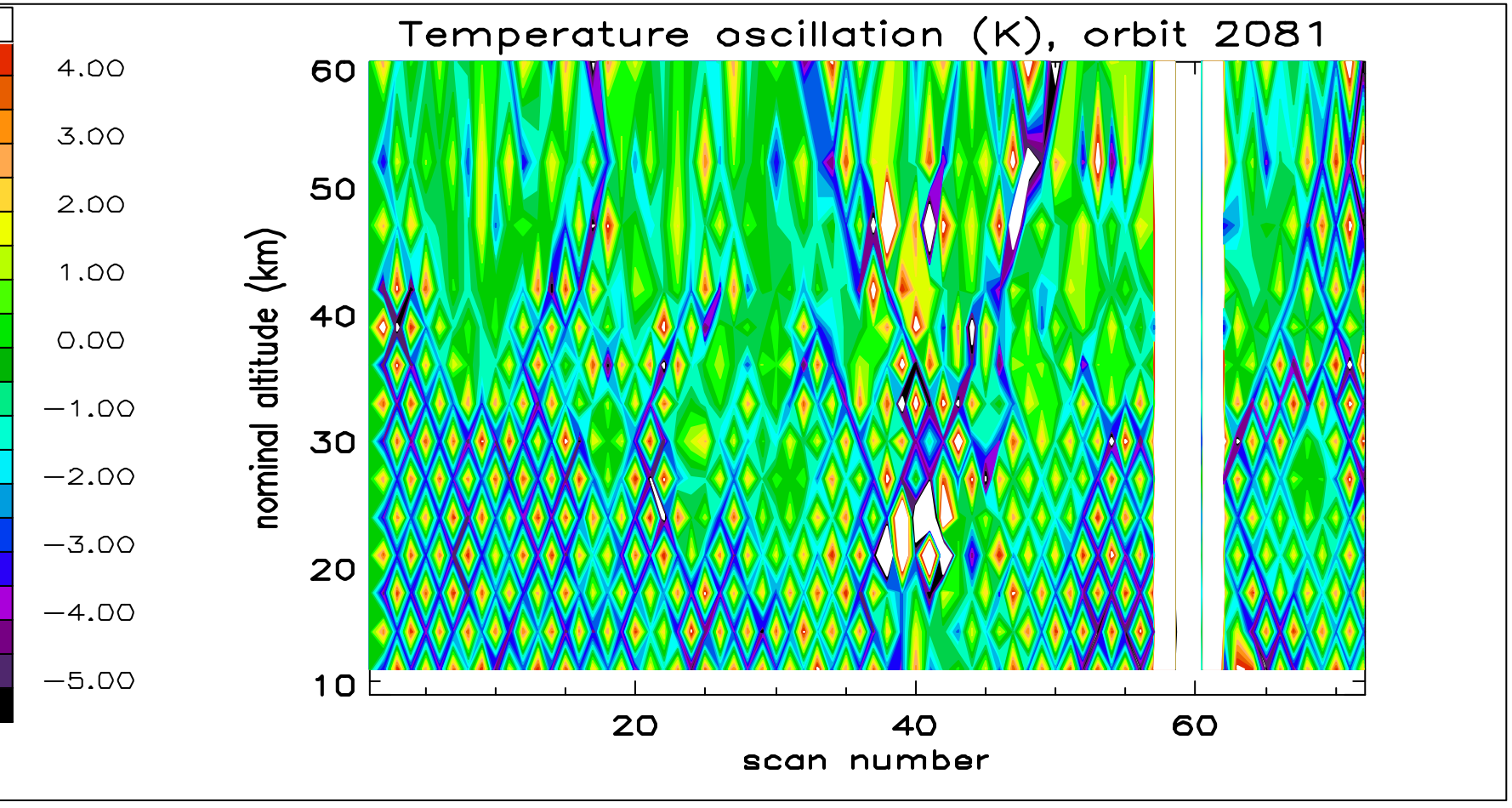

OPTIMO retrieved temperature

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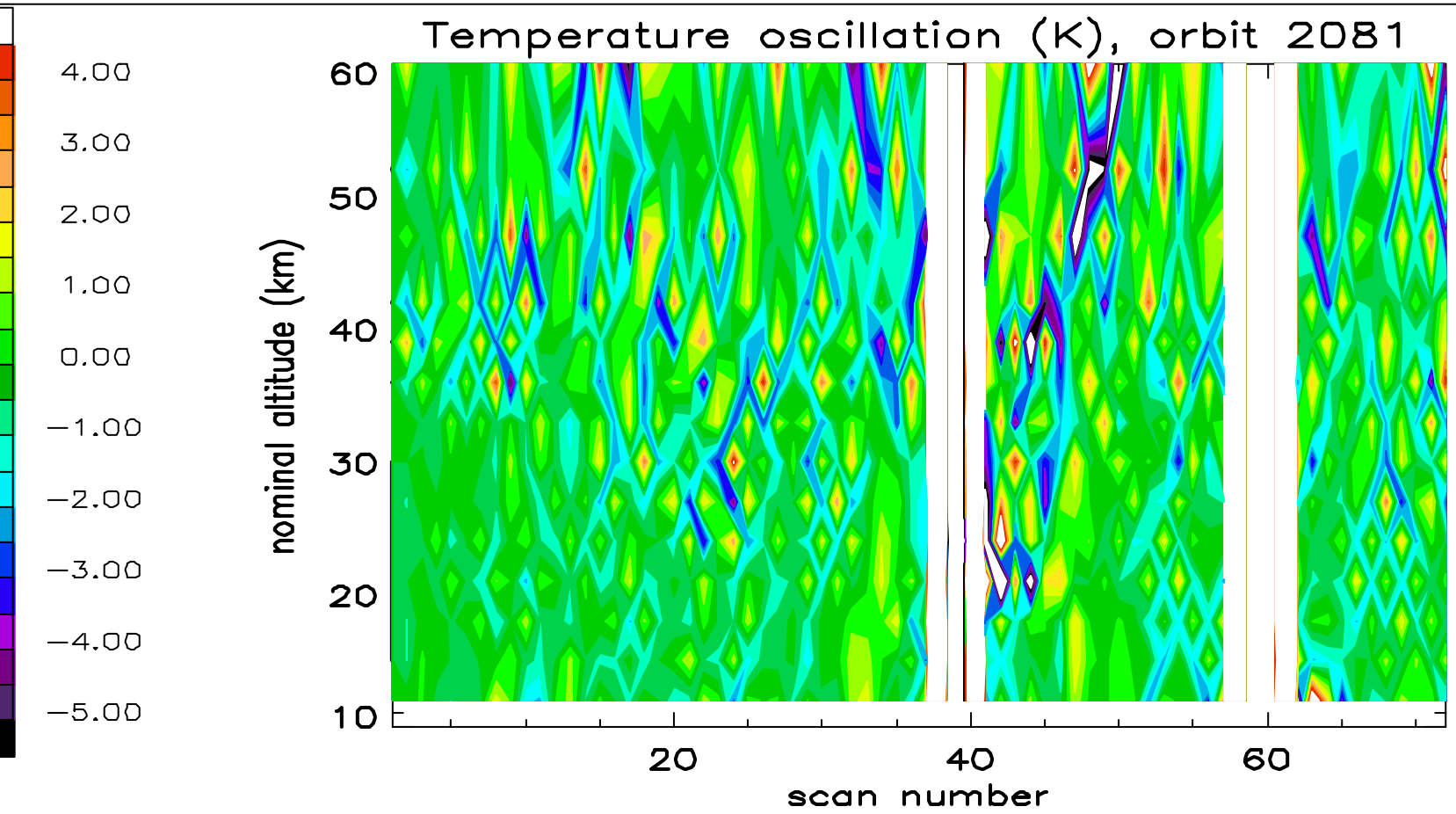

OPTIMO retrieved H_2O

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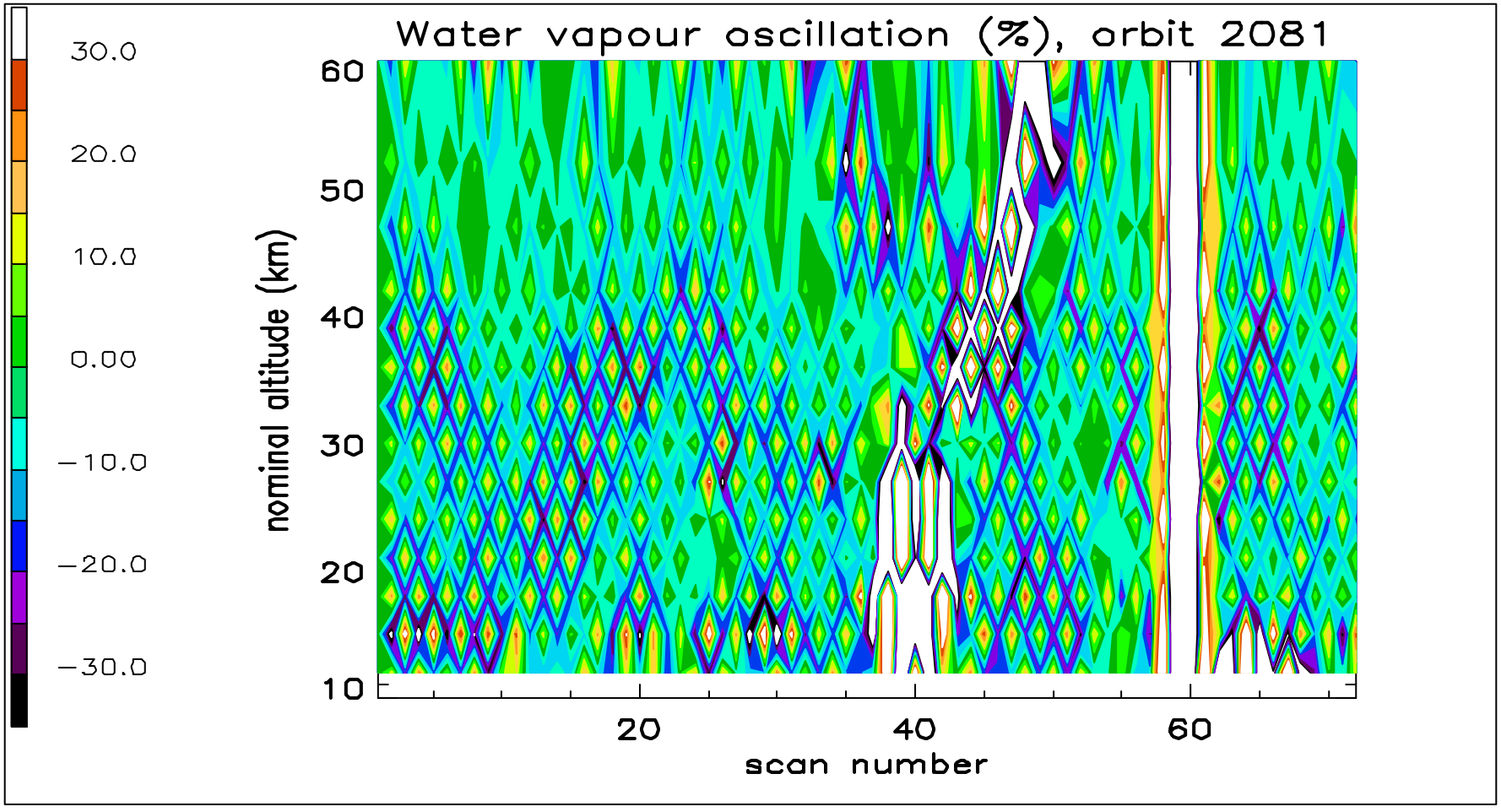

OPTIMO retrieved H_2O

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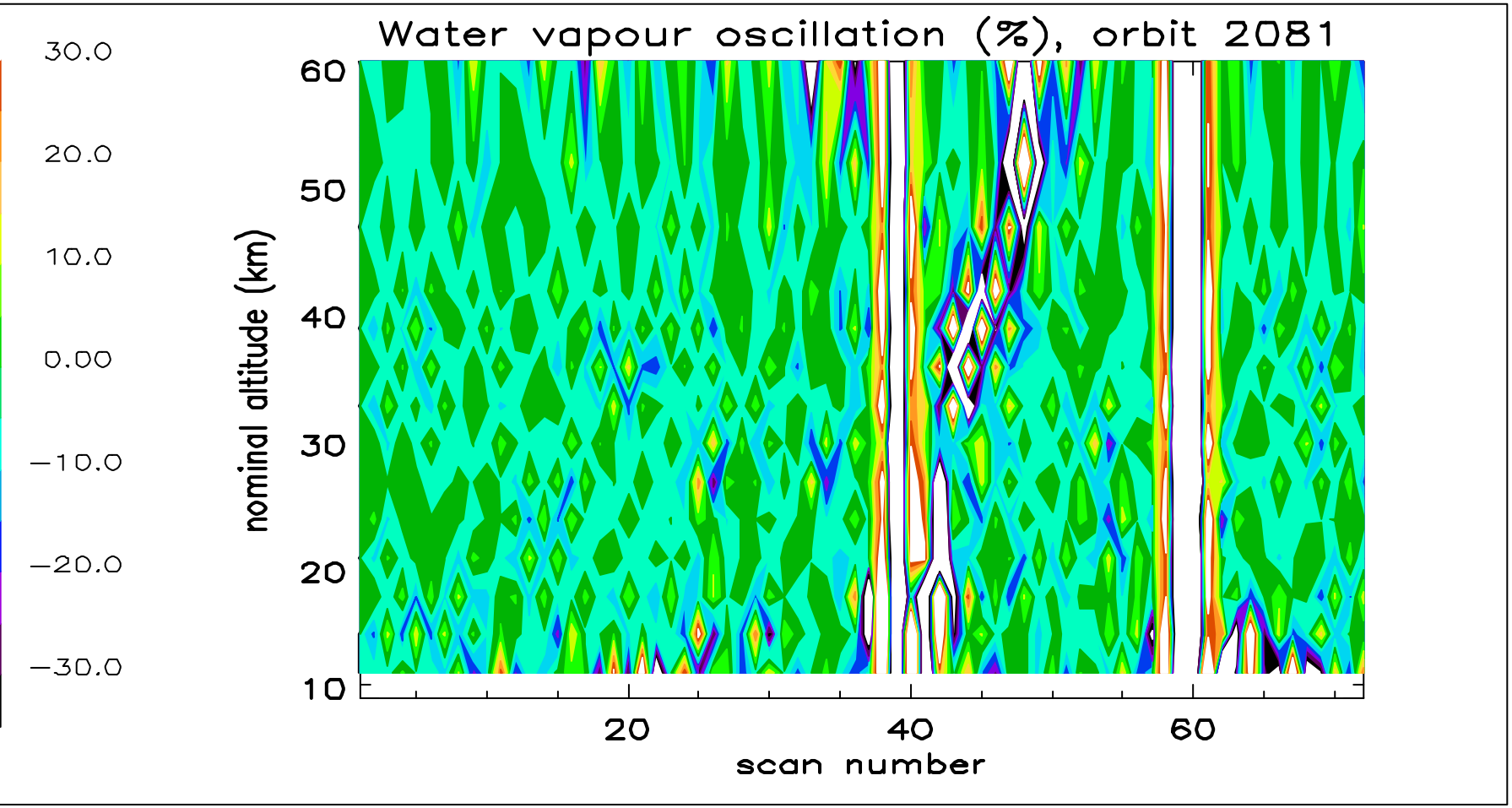

Conclusions & further work

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- The Level 1B data for Orbit 2081 supplied in January shows an improvement.
- However, some effect was still visible.
- Manfred Birk has done some further work on the non-linearity correction. The tests shown here could be done again for a new version of the orbit.