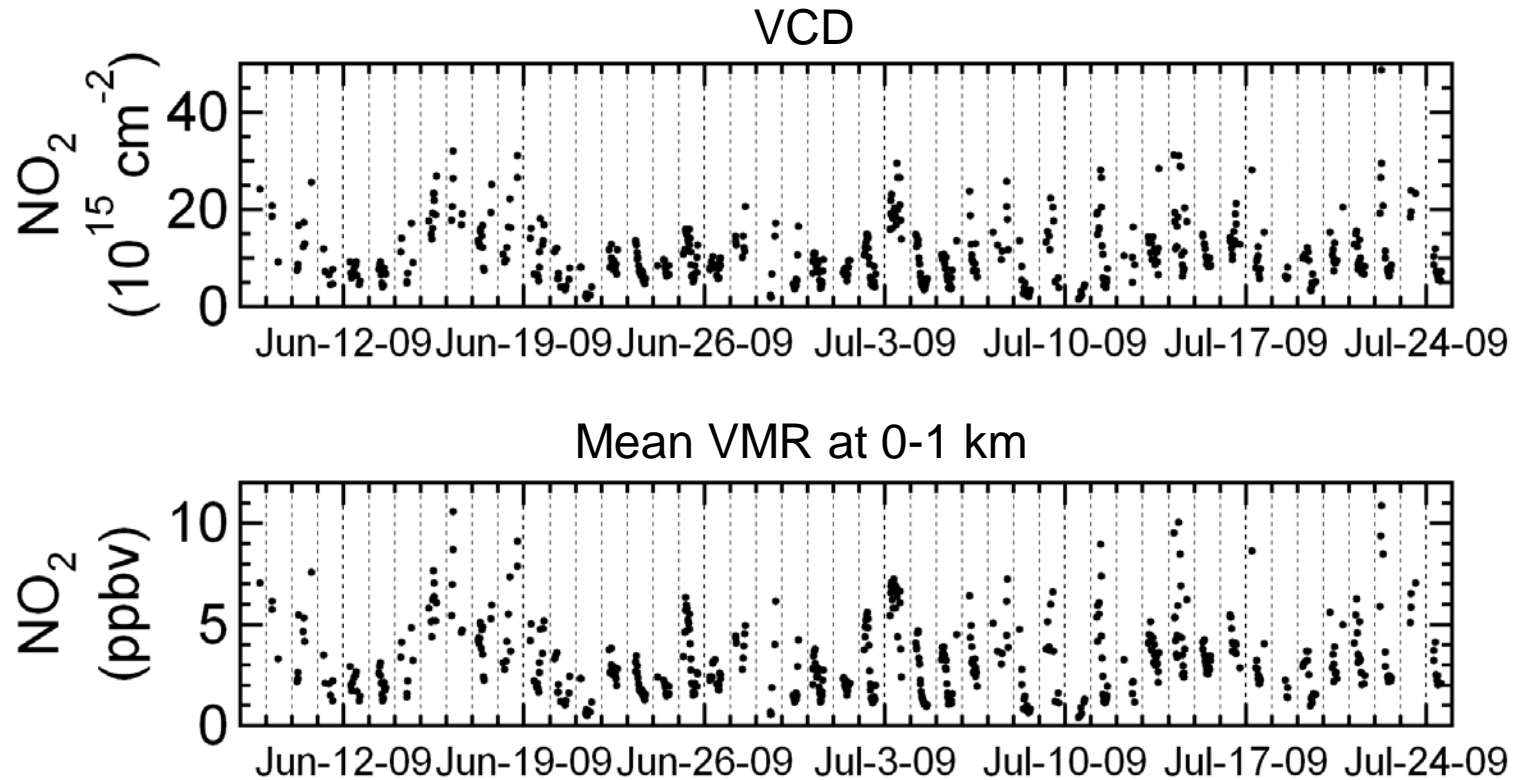


Preliminary results on JAMSTEC NO₂ retrievals

Hitoshi Irie
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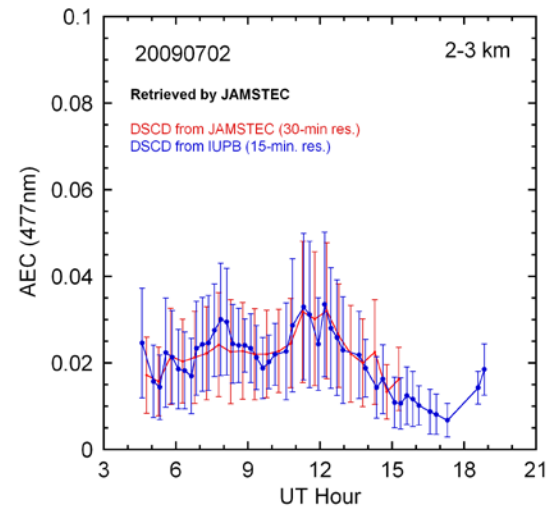
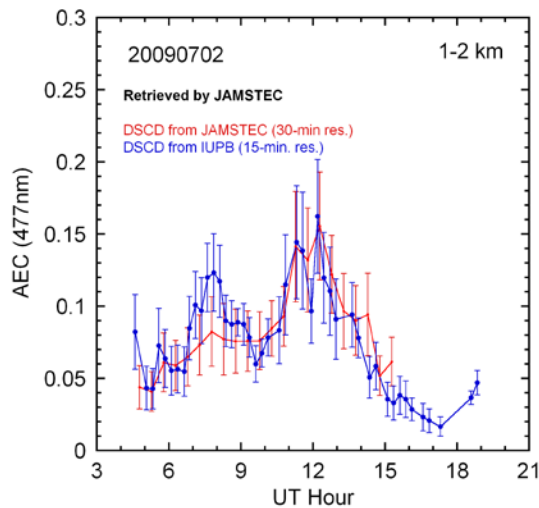
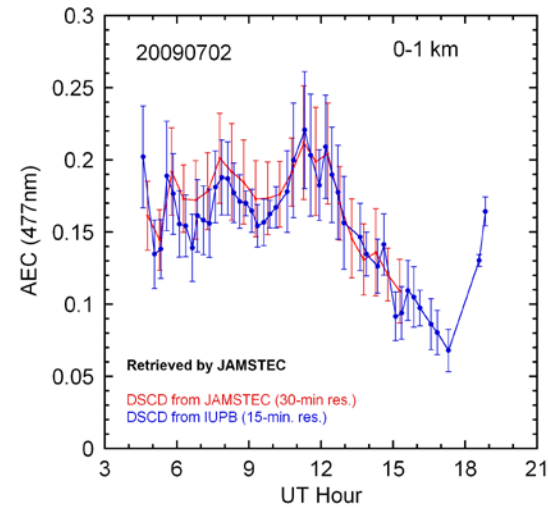
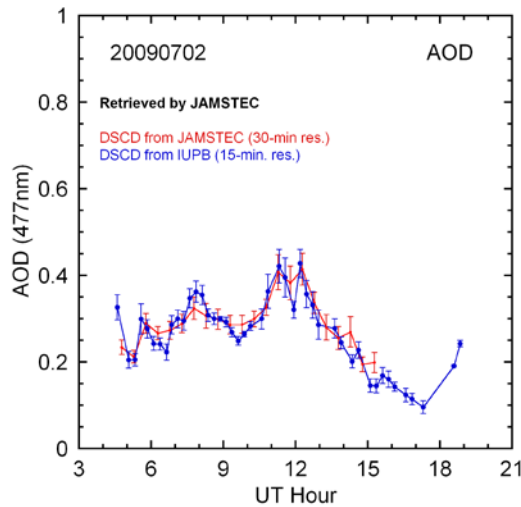
Time series of JAMTEC NO₂ data



How to retrieve NO₂ profiles/columns using DSCDs from IUPB

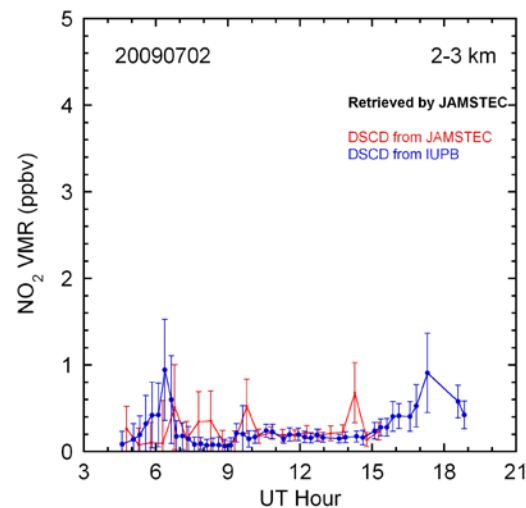
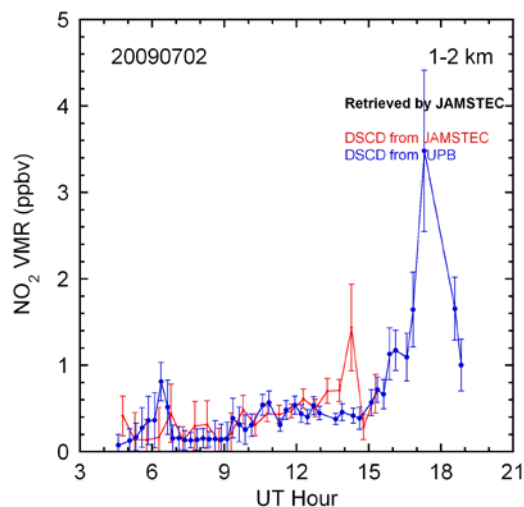
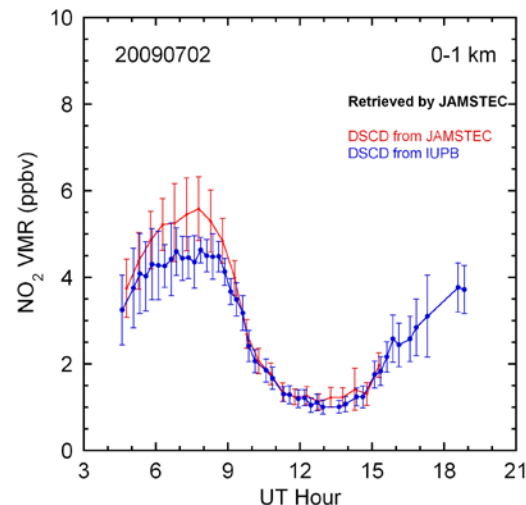
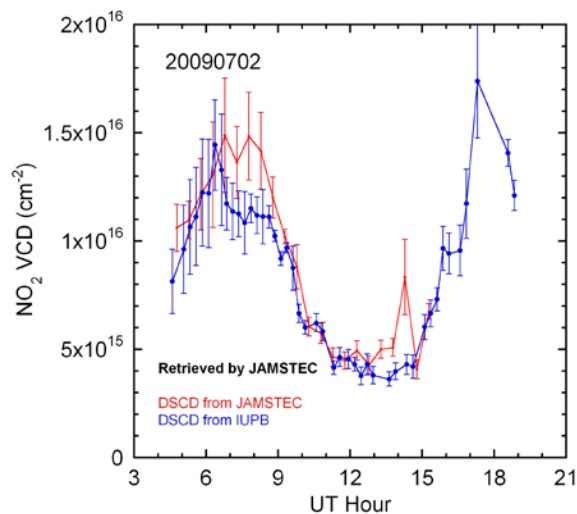
- The NO₂ retrieval is performed with the step of aerosol retrievals using O₄. Therefore, results of the NO₂ retrieval are subject to those of the aerosol retrieval.
- Only O₄ and NO₂ DSCDs measured at elevation angles of 2°, 4°, 8°, 15°, 30°, 90° are used. This set of elevation angles is the same as that of JAMSTEC.
- Profile/column are retrieved each 15-min interval.
- I assume that errors in IUPB DSCDs are a 2- σ error. (Is this right?)

Comparisons of aerosols retrieved by JAMSTEC using DSCDs from JAMSTEC and IUPB



The two aerosol retrievals are generally in good agreement.

Comparison of NO₂ data retrieved with JAMSTEC algorithm using DSCDs from JAMSTEC and IUPB



Good agreement is generally found, but there are some cases with significant differences. At this moment, I feel that a priori covariance may need a slight modification to stabilize the profile retrieval. This comparison brings me a great opportunity for this revision. I am going to do re-analysis using new a priori covariance and submit new dataset by the end of November.