



EUCLIPSE

EU Cloud Intercomparison, Process Study & Evaluation Project

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Deliverable D3.2. Storage of instantaneous 3D LES fields and key statistical variables in a public archive.

Delivery date: 24 months

Instantaneous 3D LES fields for the ASTEX case

To facilitate postprocessing of the LES data, instantaneous 3D fields of the prognostic variables from the ASTEX were saved. In particular, the liquid water potential temperature θ_l [K], the total water content q_t [g/kg], the liquid water content q_l [g/kg], the rain water content q_r [g/kg], the rain droplet concentration N_r [cm^{-3}], the three components of the wind velocity $u, v,$ and w [m/s], and the subgrid TKE, e [m^2/s^2]. In this way the data can be conditionally sampled offline with arbitrary sampling criteria, e.g. cloud core, cloud, updrafts, strongest thermals etc, or energy spectra can be calculated to provide insight to the spatial structure of the vertical turbulent transport and the spatial distribution of cloud liquid water, temperature etc.

The variables were stored at time intervals of 5 minutes for the following hours:

2-3 (Flight 2, A209), so at hours 2:00, 2:05, 2:10,, 2:55, 3:00

7-8 (Flight 3, RF06)

11-12

19-20 (Flight 4, RF07)

23-24

35-36 (Flight 5, A210)

The data are stored in self-descriptive NetCDF format and were obtained from the DALES model. Below is a list of file names `astex_3D_hhmmss.nc`, with hh indicating the hour, mm the minute, and ss the seconds.

These files can be accessed through: http://www.eucllipse.nl/wp3/LES_Data/ASTEX/Dales/

- [astex_3D_020000.nc](#)
- [astex_3D_020500.nc](#)
- [astex_3D_021000.nc](#)
- [astex_3D_021500.nc](#)
- [astex_3D_022000.nc](#)
- [astex_3D_022500.nc](#)
- [astex_3D_023000.nc](#)
- [astex_3D_023500.nc](#)
- [astex_3D_024000.nc](#)
- [astex_3D_024500.nc](#)
- [astex_3D_025000.nc](#)
- [astex_3D_025500.nc](#)
- [astex_3D_030000.nc](#)
- [astex_3D_070000.nc](#)
- [astex_3D_070500.nc](#)
- [astex_3D_071000.nc](#)
- [astex_3D_071500.nc](#)
- [astex_3D_072000.nc](#)
- [astex_3D_072500.nc](#)
- [astex_3D_073000.nc](#)
- [astex_3D_073500.nc](#)
- [astex_3D_074000.nc](#)
- [astex_3D_074500.nc](#)
- [astex_3D_075000.nc](#)
- [astex_3D_075500.nc](#)
- [astex_3D_080000.nc](#)
- [astex_3D_110000.nc](#)
- [astex_3D_110500.nc](#)
- [astex_3D_111000.nc](#)
- [astex_3D_111500.nc](#)
- [astex_3D_112000.nc](#)
- [astex_3D_112500.nc](#)
- [astex_3D_113000.nc](#)
- [astex_3D_113500.nc](#)
- [astex_3D_114000.nc](#)
- [astex_3D_114500.nc](#)
- [astex_3D_115000.nc](#)
- [astex_3D_115500.nc](#)
- [astex_3D_120000.nc](#)
- [astex_3D_180001.nc](#)
- [astex_3D_180500.nc](#)
- [astex_3D_181000.nc](#)
- [astex_3D_181500.nc](#)
- [astex_3D_182000.nc](#)
- [astex_3D_182500.nc](#)
- [astex_3D_183000.nc](#)
- [astex_3D_183500.nc](#)
- [astex_3D_184000.nc](#)
- [astex_3D_184500.nc](#)
- [astex_3D_185000.nc](#)
- [astex_3D_185500.nc](#)
- [astex_3D_190000.nc](#)
- [astex_3D_190500.nc](#)
- [astex_3D_191000.nc](#)
- [astex_3D_191500.nc](#)
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- [astex_3D_192500.nc](#)
- [astex_3D_193000.nc](#)
- [astex_3D_193500.nc](#)
- [astex_3D_194000.nc](#)
- [astex_3D_194500.nc](#)
- [astex_3D_195000.nc](#)
- [astex_3D_195500.nc](#)
- [astex_3D_200000.nc](#)
- [astex_3D_230000.nc](#)
- [astex_3D_230500.nc](#)

- [astex_3D_231000.nc](#)
- [astex_3D_231500.nc](#)
- [astex_3D_232000.nc](#)
- [astex_3D_232500.nc](#)
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- [astex_3D_233500.nc](#)
- [astex_3D_234000.nc](#)
- [astex_3D_234500.nc](#)

- [astex_3D_235000.nc](#)
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- [astex_3D_240000.nc](#)
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- [astex_3D_353500.nc](#)
- [astex_3D_354000.nc](#)
- [astex_3D_354500.nc](#)
- [astex_3D_355000.nc](#)
- [astex_3D_355500.nc](#)
- [astex_3D_360000.nc](#)