Title: University of Wyoming King Air (UWKA) Low-Rate Flight Level Data from the 2022 Transport and Transformation of Ammonia (TRANS2Am) Project

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Description:
The Transport and Transformation of Ammonia (TRANS2Am) campaign was focused on sampling emissions (primarily methane, ethane, and ammonia) associated with intensive animal farming operations in Colorado. This dataset contains the navigation and state parameter data measured by the UWKA during the research phase of TRANS2Am in August-September 2022.

· Version: 1.0 (2022-05-19) processing release tag trans2am22_qc1

· Status: Final

· Time period: 2022-08-16 18:19 to 2022-09-02 18:21

· Physical location: 40.0 to 41.3 degrees North latitude, -105.8 to -102.4 degrees East longitude

· Data frequency: 1 Hz

· Project web site: http://flights.uwyo.edu/projects/trans2am22/

· Data restrictions: none

Instruments:

· Aircraft position and attitude - Applanix AV-410

· Static Pressure - Rosemount HADS, Weston, CPT-6140, CPT-9000

· Air Temperature - Reverse Flow, Rosemount 102

· Air Flow - Rosemount 0858

· Water Vapor - Edgetech Vigilant

- Radar Altitude - King KRA 405B
- Cabin Pressure - Rosemount 1332
- Aerosol Sizes - PCASP SPP-100

Data Format:

- NCAR-RAF netCDF Conventions: https://archive.eol.ucar.edu/raf/software/netCDF.html

Remarks:

- Summary of each flight including instrument issues: http://flights.uwyo.edu/projects/trans2am22/

The project consisted of nine research flights. As the project was a continuation of the 2021 phase of TRANS2Am, flight numbers continue sequentially from that phase and begin at RF15. Flight numbers are included in the file metadata. Files are named by UTC date, as *YYYYMMDD.cX.nc*, where *X* corresponds to the processed data rate in Hz.

GCMD Keywords:

Atmosphere, Aerosols, Aerosol Particle Properties, Air Quality, Emissions, Altitude, Barometric Altitude, Atmospheric Chemistry, Atmospheric Pressure, Static Pressure, Atmospheric Temperature, Upper Air Temperature, Atmospheric Water Vapor, Dew Point Temperature, Humidity, Atmospheric Winds, Upper Level Winds, Flight Level Winds

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