# STANCO Training Course, 26 June - 6 July 2017, Cambridge, UK
# PROGRAM

| | Monday 26/06 | Tuesday 27/06 | Wednesday 28/06 | Thursday 29/06 | | Friday 30/06 | Saturday 01/07 |
|---|---|---|---|---|---|---|---|
| 9:00-10:30 | Arrival | **8:45:8:50** Welcome (**EUFAR)** **8:50-9:15 P. Di Carlo & J. McQuaid:** Welcome and general information on STANCO course **9:15-10:30** Self introduction of students, division of students into working groups | **R. Jones:** Composition and climate change | **R. Krejci:** Aerosol microphysics and physically based methods | 9:00-10:30 | **P. Brown**: Flight planning, mission objectives, goals and risk assessment | **M. Smith:** BAe 146 safety rules **A. Wellpott:** BAE 146 data access and use |
| 10:30-11:00 | | *Coffee break* | *Coffee break* | *Coffee break* | 10:30-11:00 | *Coffee break* | *Coffee break* |
| 11:00-12:30 | | **A. Archibald:** Atmospheric chemistry: Key topics | **J. McQuaid:** airborne measurements of VOC : WAS and online techniques | **A. Vaughan:** New emerging instruments and techniques for airborne measurements of the atmospheric composition | 11:00-12:00 | **A. Woolley:** BAE146 aircraft introduction | **J. Trembath**: Instrument Fittings |
| 12:30-13:30 | | Lunch | Lunch | Lunch | 12:00-13:00 | **S. Devereau**: Instrument Certification | **O. Henry:** Process, plot, analyze aircraft data: EGADS software (12:00-13:30) |
| 13:30-14:45 | | **A. Archibald:** Models application to aircraft observations | **S. Bauguitte:** Chemistry of GHG-airborne measurements of GHG: QC-L technique | **B. Ouyang:** Airborne Custom Instruments: BBCEAS | 13:00-14:00 | Lunch | Lunch |
| 14:45-15:00 | | *Coffee break* | *Coffee break* | *Coffee break* | 14:00-15:00 | Departure to ariport to visit the BAe-146 | Introduction to Airborne measurements analysis (J. **McQuaid, S. Bauguitte, R. Krejci, P. Di Carlo)** |
| 15:00-16:00 | | **S. Bauguitte**: NOx chemistry and airborne measurement techniques for NOx, O3 and CO | **A. Vaughan :** Aircraft flux measurements | **A. Aruffo:** Aircraft custom Instruments: TD-LIF | 15:00-15:15 | | *Coffee break* |
| 16:00-17:00 | **17:00** Welcome Ice-breaker | **P. Di Carlo:** New frontiers on airborne observations: from big aircrafts to drones | **R. Krejci**: Aerosol chemistry, mixing state, SOA. | **J. McQuaid:** BAe 146 campaigns and main scientific results so far | 15:15-16:00 | | Meteo, Flight planning |
| | | | | | 16:00-17:00 | | Meteo briefing, flight objectives |
| 19:30 | Dinner | Dinner College | Dinner College | Dinner College | 19:30 | Dinner | Dinner College |

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| Sunday 02/07 | | Monday 03/07 (*) | | | | Tuesday 04/07 (*) | | | | Wednesday 05/07 | Thursday 06/07 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7:30 | *(Group A)* Departure to airport | | *Group B, C)* | 7:30 | *(Group B, C)* Departure to airport | | *(Group A)* | 9:00-9:30 | Debriefing | |
| Day off Tour of Cambridge | 8:00-12:00 | *Pre-flight* | 9:00-10:30 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Classroom Exercises: Data quality check | 8:00-12:00 | *Pre-flight* | 9:00-10:30 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Classroom Exercises: Data quality check | 9:30-10:30 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Data pre-analysis, discussion | Student presentations |
| | 12:00-15:00 | Mission Flight 1 (Group A) | 10:30-11:00 | *Coffee break* | 12:00-15:00 | Mission Flight 2 (Group B) | 10:30-11:00 | *Coffee break* | 10:30-11:00 | *Coffee Break* | *Coffee Break* |
| | 16:30 | Departure from airport | 11:00-12:30 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Classroom Exercises: Airborne Data analysis | 15:00-16:30 | Refuel; Departure from airport (Group B) | 11:00-12:30 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Classroom Exercises: Airborne Data analysis | 11:00-12:30 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Data pre-analysis, discussion | Student presentations STANCO conclusions |
| | 17:00-17:30 | Debriefing | 12:30-13:30 | *Lunch* | 16:30-19:30 | Mission Flight 3 (Group C) | 12:30-13:30 | *Lunch* | 12:30-13:30 | *Lunch* | *Lunch* |
| | | | 13:30-14:45 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Classroom Exercises: Airborne Data analysis | 20:30 | Departure from airport | 13:30-14:45 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Classroom Exercises: Airborne Data analysis | 13:30-14:45 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Data pre-analysis, discussion | *Student Departure* |
| | | | 14:45-15:00 | *Coffee break* | | | 14:45-15:00 | *Coffee break* | 14:45-15:00 | *Coffee break* | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 15:00-17:00 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Classroom Exercises: Airborne Data analysis | | | 15:00-17:00 | **E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:** Classroom Exercises: Airborne Data analysis | 15:00-17:00 | ***E. Aruffo, A. Wellpott, J. McQuaid, R. Krejci, P. Di Carlo:*** Data analysis, discussion, preparation of student presentations | |
| Dinner College | 19:30 | Dinner College | | | 20:45 | Dinner College | | | 19:30 | Dinner College | |

(*)
Students will be divided in 3 groups (Group A, B, C): Group A joins Mission Flight 1, Group B Mission Flight 2 and Group C Mission Flight 3. For each mission flight day the students not involved in the flight will attend classroom exercises on airborne measurements analysis, using data acquired during previous campaigns for the classroom exercises on Monday 03/07 and data collected during the STANCO mission flights for classroom exercises on Tuesday 04/07.