TRAINING COURSE

School and Training on Aircraft New Techniques for Atmospheric Composition Observation (STANCO)

To be held in Cambridge, UK, 26 June - 6 July 2017

Organised by DiSPUTER of the University G. D'Annunzio of Chieti-Pescara and EUFAR, with funding from EUFAR - a project financed by the EU's 7th Framework Programme (2014 -2018)

The main objective is to provide an overview on measurement techniques, data analysis and specifics of the airborne measurements of species relevant in the atmosphere. Emphasis will be on new instruments and emerging techniques for aircraft observations.

Air pollution and climate changes are global problems and the species responsible for these environmental issues are emitted essentially by the same process: fossil fuel burning.

The observations of these compounds using aircraft platforms are needed because usually most of these measurements are highly dependent on altitude and exhibit large horizontal variability. Aircraft allow in-situ measurements that can be used to identify and track emission plume of atmospheric trace gases.

The lectures will include an introduction on atmospheric composition focusing on pollution transport, vertical distribution of atmospheric compounds and links between air pollution and climate changes. They will also cover the technical, engineering and safety aspects of airborne measurements.

Subject to operational constraints, all students will have the opportunity to participate in a research flight on the FAAM instrumented BAe-146 aircraft. Data will then be processed and analysed with the support of experienced users of airborne facilities.

THROUGH THE STANCO TRAINING COURSE, PARTICIPANTS WILL LEARN HOW TO:

- develop a measurement strategy and design a flight plan for an airborne campaign;
- use experimental techniques to study the atmospheric composition on-board aircraft;
- develop sampling strategies to measure trace gases and aerosols in the atmosphere;
- calibrate aircraft instruments and validate airborne measurements;
- use post-process techniques of airborne data.

Directors of the Course

Piero Di Carlo (Univ. Chieti-Pescara, IT)
Jim McQuaid (Univ. Leeds, UK)

Organising Committee

Piero Di Carlo (Univ. Chieti-Pescara, IT)
Jim McQuaid (Univ. Leeds, UK)
Ils Reusen (EUFAR ET coordin., VITO, BE)
Lilian Diarra (Météo-France/ EUFAR, FR)
Radovan Krejci (Stockholm Univ., SE)

The BAe-146 aircraft is operated by FAAM - the Facility for Airborne Atmospheric Measurements, and is part of EUFAR's transnational access framework. FAAM is a joint collaboration between NERC, the Met Office, and NCAS.

Applicants: PhD students, post-docs & university lecturers (number of participants is limited to 20)

Fee: no registration fee

Travel & subsistence: 100% funded by EUFAR for selected applicants working in an institution established in a European Member State or Associated State

Information & Registration:
www.eufar.net/projects/education-and-training/

Deadline: 31 March 2017

Selected participants will be notified by 30 April 2017

For information, contact: EUFAR Office - bureau@eufar.net

EUFAR brings together operators of instrumented aircraft and remote-sensing instruments, and experts in airborne measurements in the field of environmental in the atmosphere, marine, terrestrial and Earth sciences. For more information and/or to become a member of the EUFAR network, visit: www.eufar.net.