

## **2nd Annual Report**

### **Summary**

This reporting period had as main objective to develop dedicated programs for data processing and analysis as required by European databases (EBAS, IAGOS, ICOS), coordinator participation to EMEP (January-February 2013) and ACTRIS ACSM (June 2012 - May 2013) international campaigns, and also the inter-calibration activities for CALIPSO satellite.

The UAV platform (unmanned air vehicle model Clipped Wing Cub ARF 60% that belongs to INCAS) was equipped ( adapted) with atmospheric equipments.

There were carried out all proposed activities regarding the international campaigns. During January-February 2013 took place ACTRIS-EMEP campaign, an intensive international campaign of measurements that was dedicated to aerosols study both at ground level and altitude. INOE was involved in this campaign as an active remote sensing ACTRIS station. For this campaign were used both multichannel Raman lidar system (RALI) and aerosol mass spectrometer (C-ToF AMS). Studies have been made on certain types of aerosol using the database from 2012-2013. The winter-summer variation of aerosol chemical species could be evidenced.

There were developed special programs and utilities for data processing and analysis as required European databases (EBAS, IAGOS, ICOS): software packages for pre-processing and processing and lidar signal data conversion but also uncertainty calculus for pre-processing for airborne data measured with CAPS - Cloud, Aerosol and Precipitation Spectrometer.