

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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EARTH OBSERVATION IN THE CLASSROOM

Abstract

This paper will present an earth observation activity made for secondary school. The concept is normally presented as a one-day teacher training session where the teachers should be able to reproduce the activity at their own school. The activity is currently being used actively by NAROM and Nordic ESERO both in Norwegian and in English. The activity involves the use of earth observation images from the Sentinel satellites available for free educational use through EO-Browser by Synergise. Required tools to do the activity is a computer with internet connection and a mobile phone with built in GPS receiver. The activity is based on a unique methodology that starts in the classroom by learning, analysing and understanding the information contained in Earth Observations images. The activity proceeds by selecting interesting points from the images where on-site experiments are carried out. GPSs are used as tool to link the images analysis and expectations with the on-site experiments. This formula gives the opportunity to introduce the basic concepts behind satellite navigation as well. Finally, the students come back to the classroom and try to correlate the information from the satellite images with the on-site experiments. The methodology is based in active-inquiry learning and have been already proved quite successfully. This methodology, merging analysis of satellite data with on-site experiences, helps for a better understanding of the abstract information contained in some satellites images. For example, the information behind false colour images, or containing infrared information, becomes easier to understand by complementing with experiments on-site. Several teachers, after their participation in NAROM and Nordic-ESERO courses where this idea have been presented and tested, have applied this methodology in their own schools and the feedback received has been very positive. This paper will present the activity and during the session, a demonstration of the activity will be given.