Measuring ocean currents from space – a novel approach

The National Oceanography Centre (NOC), Airbus Defence & Space (Airbus D&S) and Satellite Oceanographic Consultants Ltd (SatOC) are seeking a highly capable and self-motivated scientist or engineer to join the innovative SEASTAR satellite mission development team. The position is available from September 2017 for 5 to 10 months depending on skills, knowledge and relevant experience. The position is suitable for a bright student or an experienced professional wanting to learn about innovative remote sensing of ocean surface currents and winds. The person will be employed as a consultant to NOC via a subcontract to SATOC Ltd. For suitable candidates, the work could feed into the related 3.5 years funded PhD project currently available at NOC: http://noc.ac.uk/gsnocs/project/measuring-ocean-currents-space-%E2%80%93novel-approach.

SEASTAR is an innovative satellite mission that proposes to measure ocean surface current and wind vectors at 1km resolution with unprecedented accuracy to support ocean submesoscale research. The mission is based on squinted along-track SAR interferometry and is being prepared for submission to the European Space Agency as an Earth Explorer mission.

Main responsibilities for the post are to perform a series of computer simulations with an existing end-to-end mission simulator available at ESA-ESTEC (Nordwijk, NL). The simulator is up and running at ESTEC already, the vacancy having arisen after the previous incumbent left for personal health reasons. The outcome of this work is to quantify the theoretical performance of the mission using simulated results, documenting the results in the form of a report, and ultimately a refereed publication.

The position requires post-graduate qualification from a numerate discipline, excellent software development skills and the ability to think critically and analyse, interpret and communicate results clearly and effectively. Knowledge of SAR remote sensing and IDL programming are desirable.

The individual will work under the direct supervision of Christine Gommenginger (NOC) and Chris Buck (ESA) with support from Jose Marquez (Airbus D&S). The position is with the National Oceanography Centre (Southampton, UK) but the individual is expected to spend a minimum of 2 months in total at ESTEC to complete the simulations. If necessary, the post could be based fully at ESTEC with fortnightly remote progress meetings with NOC and Airbus D&S. Individuals must be nationals of an EU member state.

To apply, please email your 1-page personal statement and full CV to Christine Gommenginger (cg1@noc.ac.uk) by 04 July 2017. Interviews will take place by Skype on 13 and 14 July 2017.

References


