National Trainee Scheme Training Opportunity

Reference	Specialist Area	Duty Station
NTS-2012-EOP-SE	**EO data exploitation projects (2 traineeships)**	**ESRIN or Harwell**

Overview of the Division missions:

The EO Services and Exploitation Division stimulates increased exploitation of Earth Observation data by the research community, public sector, and industry. It maintains close contact with more than a thousand research teams worldwide, who exploit ESA EO data from ERS, ENVISAT, and the Earth Explorer missions. The division liaises with public sector users in Europe, with international scientific programmes, and implements cooperative projects with developing countries. It supports EO value-adding industry to develop new EO-based services. Major new activities concern observations of Essential Climate Variables and preparing new applications and scientific exploitation of the future Sentinel missions. Trainee opportunities are available primarily at ESRIN. *Candidates specifically interested in a placement at the ESA Climate office in Harwell UK will be also be considered.*

Overview of the fields of activity proposed:

The successful candidate(s) will:

• Contribute to Earth Observation research and applications development in Terrestrial, Oceanographic, Atmospheric or Cryospheric fields. A broad range of project opportunities exist on topics such as space-based climate records, global change, atmospheric composition, land-cover mapping, regional and local phenomena such as glaciers, ice-sheets, sea-ice, water management, hydrology, environmental impacts, forest management, disaster management and preparedness, interactive visualization of EO data

• Analyse data from ESA and third-party EO missions, which includes SAR, INSAR, Polinsar, optical imaging (VHR, low res, imaging spectrometry) passive microwave, ocean colour, SST, radar altimetry, atmospheric limb & nadir sounding (UV - Far lA).

• Conduct a one-year project focusing on one of the above topics. This will involve: 1) project definition & planning; 2) acquiring suitable EO data; 3) developing algorithms and software; 4) analysing and validating EO data 5) documenting, publishing and presenting results. The candidate may also help organize thematic workshops, prepare training courses, dialogue with end-users and prepare technical specifications for future ESA projects.

• Priority will be given to topics related to ESA EO missions, for which there is established or developing research activity within the states participating to this scheme, and to EO applications that are of direct national and regional relevance

Required Education:

Master's degree in a relevant discipline: Physics, Electronic Engineering, Computing, Oceanography, Atmospheric Physics, Geophysics, Remote Sensing etc

Knowledge of Earth Observation systems, data products & algorithms is necessary

Candidates planning to integrate their ESA project within a PhD course will be considered favourably

Applicants should have good interpersonal and communication skills and should be able to work in a multi-cultural environment, both independently and as part of a team.

Applicants must be fluent in English and/or French, the working languages of the Agency.