



Recruitment

Expert on GNSS and Space Weather

Context

CLS (Collecte Localisation Satellites) is a private branch of CNES located in Toulouse, France. Its main activities concern operations and expertise on space systems for data collection, ocean observation (radar imagery and altimetry), maritime security and fleet monitoring.

The Environment & Climate Business Unit (BU) addresses the development of operational or research applications in space observation, oceanography, meteorology, hydrology, ecology and many other Earth sciences. Its customers are mainly space agencies, international institutions, scientists, but also private companies. The BU trades, creates and operates products and services in close collaboration with the other BUs and support managements. The Environment & Climate BU is also in charge of the strategy and coordination of CLS group in the environmental domain.

Mission

In the Space Observations Pole of the Environment & Climate BU, the candidate will participate to the operations and the improvements of a space weather forecast service for the International Civil Aviation Organization. This recently designed service allows airlines companies to be alerted of possible perturbations on the flight systems (navigation and communication) and of possible health risks for the crew, due to Sun-Earth interactions. The work will be done within an international consortium (Canada, Australia, Japan and France).

The successful candidate will contribute to develop specific algorithms for the processing of GNSS dedicated to the monitoring and forecasting of the ionosphere. Model validation and impacts analysis will be led thanks to in-situ observations and local collaboration with final users at airports. The scope of the mission will also include the prediction of solar and geomagnetic activities, as well as a participation to the operational 7/7 service within the CLS space weather expert team.

Qualification and training required

The candidate will have:

- A graduate from a university or an engineering school in Physics, Space Physics, or related fields,
- A 1 to 5 years post-graduate experience in (theoretical or applied) research and related topics (GNSS, space weather, geophysics...).

The candidate must have:

- A keen interest for research and particularly space weather.

Skills and competences

- Knowledge:
 - C, Python, Java in Linux environment
 - GNSS technics (from observations to data processing)
 - Space weather (physical phenomena)
 - Operation work (Service Level Agreement)
 - Work organisation
 - English (spoken, written)

- Know-how:
 - Software development with objectives of performance and reliability
 - Teamwork
 - Responsive to situations
 - User satisfaction
 - Good communication skills (oral and written).

- Know-how-to-be:
 - Creativity and strong scientific and technical curiosity
 - Initiative abilities
 - Responsibility and autonomy
 - Capacity for analysis and synthesis
 - Method and rigorous work
 - Team spirit.

Miscellaneous

- Work based in Toulouse
- Travels in France and abroad

Work conditions

- Fixed-term contract (1 year), renewable

Contacts

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