EUROPEAN SPACE AGENCY

Satellite and Payload/Instrument Performance Engineer

Job Req ID: 15645
Closing Date: 05 July 2022
Publication: Internal & External
Vacancy Type: Permanent
Date Posted: 14 June 2022

Vacancy in the Directorate of Earth Observation Programmes.

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. We therefore welcome applications from all qualified candidates irrespective of gender, sexual orientation, ethnicity, beliefs, age, disability or other characteristics. Applications from women are encouraged.

This post is classified A2-A4 on the Coordinated Organisations' salary scale.

Location
ESTEC, Noordwijk, Netherlands

Description
Satellite and Payload/Instrument Performance Engineer in the Post-Launch Support Office, System Support Division, Earth Observation Projects Department in the Directorate of Earth Observation Programmes.

You will be responsible for the in-flight satellite performance activities for ESA Earth Observation missions in phase E2 (routine operations phase) and F (post-mission disposal), within the Earth Observation Projects Department. You will report to the Head of the Post-Launch Support Office and provide support to the satellite Mission Managers, providing satellite design expertise for any phase E2 activities. In so doing, you will organise and act as focal point for any necessary expert support from within ESA (in particular EOP and TEC) and industry.

Duties
Your duties will include:

- participating in the definition and execution of the mission handover from phase C/D/E1 Space Segment Managers to Mission Managers at the end of phase E1 (Commissioning Phase); in particular, you will ensure the proper handover of satellite activities to the Mission Manager groups, with particular attention to key documentation and ground support equipment;
- in order to facilitate the above, you will support Phase C/D/E1 Space Segment Managers in the preparation, training and execution of phase E1;
- working closely with the H/PLSO, you will define and agree with Mission Managers the set of tasks required to provide satellite expertise during phase E2;
- supporting the H/PLSO in specifying and negotiating the necessary contracts with the satellite industry partners required to support the phase E2 tasks defined above;
- managing the necessary contracts with the satellite industry partners required to support the phase E2 tasks for the duration of phase E2;
- ensuring the appropriate satellite expertise is provided during satellite anomaly investigations, in close cooperation with the OPS-OE Spacecraft Operations Manager;

- ensuring regular reporting on the performance of all satellite elements, with an emphasis on long-term evolution; to that end, you will set up and manage any necessary performance investigations;
- following requests from Mission Managers, or as a result of performance investigations, you will provide proposals for the evolution of mission parameters, in particular when increasing performance and the possible lifetime of satellites; you will also provide satellite expertise during the execution of such proposals upon Mission Manager decision;
- for missions with recurrent satellites, you will interact with the phase C/D/E1 Space Segment Managers to exchange and acquire all necessary information concerning important issues uncovered during operations of flying satellites or on-ground testing of recurrent satellites;
- you will manage the industry support for corrective maintenance, by setting and leading Anomaly Review Boards to perform "quick" investigations in order to safely recover the satellite/payloads from anomalies.
- you will also manage, as required, the industry support for "deep" investigations to complete the knowledge of anomaly root-cause(s) and support provision of solutions or work-around implementations in order to continue the mission according to the mission requirements;
- organising and coordinating the execution of the Satellite In-Orbit Performance technical meetings.
- participating and providing expert support, as required, to the Phase B-C-D-E1 reviews of Earth Observation missions;
- providing expert support, as required, to the Space Segment System Engineer during the Phase B-C D-E1 for Earth Observation missions;
- providing expert support, as required, to the Mission Managers and to the Satellite Operations Managers during Phases E2 and F of the Missions;
- contributing to the lessons learned process through participation in key satellite reviews during all phases.

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In performing these duties, you will be required to:

- interface with the engineers in the Post-Launch Support Office of the Earth Observation Projects Department to ensure complete execution of the Satellite In-Orbit Performance activities and proper application of work methods on preventive and corrective maintenance;
- interface with the EOP-G Mission Managers to define phase E2 activities, report on satellite performance investigations and propose any necessary mission parameter changes;
- interface with the OPS-OE Spacecraft Operations Managers to provide satellite expertise for satellite operations anomaly investigations;
- interface with the EOP-G Payload Data Ground Segment Operations Managers to provide satellite expertise on mission data anomaly investigations;
- interface with the satellite industry on the execution of the industry support contracts as necessary;
- obtain support from mission and satellite experts within ESA (in particular EOP and TEC) when necessary;
- in preparation for the above, interface with the EOP-P phase C/D/E1 Space Segment Managers to prepare for the handover of satellite management at the end of Commissioning phases, and provide expert support for phase E1 preparation and execution;
- interface with similar teams in other organisations (e.g. EUMETSAT, CNES, etc.) for mutual support and exchanges on methodology, tools and key findings.

You will be supported by specialist engineers and contractors.

NB: for those ESA missions where the satellite operations does not fall under OPS-OE’s responsibility, similar interaction and collaboration with the equivalent operations structure in the organisation responsible will apply.

Technical competencies
Background in technical disciplines involved in Earth Observation satellite and payload engineering, including thermal control, mechanical accommodation, optical interfaces, power interfaces and data handling
Experience in Earth Observation satellite design encompassing system aspects (operational concepts definition, FDIR)
Experience in Earth Observation mission, satellite, ground segment architecture
Experience in Earth Observation mission, satellite, ground segment operations
Experience in satellite AIV/AIT activities
Experience in satellite SVT activities
Experience in satellite in-orbit commissioning and performance verification methodologies

Behavioural competencies
Result Orientation
Operational Efficiency
Fostering Cooperation
Relationship Management
Continuous Improvement
Forward Thinking

Education
A master's degree in an engineering field or related subject is required.

Additional requirements
You should also have:

- a background and substantial experience (minimum of 10 years) in the technical areas covered by the position;
- the ability to act calmly under pressure;
- the ability to brief senior decision makers under crisis conditions;
- strong problem-solving skills to deal with day-to-day operational challenges, together with demonstrated planning and organisational skills;
- strong result orientation with the ability to set priorities and present practical solutions both orally and in writing;
- the ability to manage challenging situations proactively and constructively and to be customer-focused.

Other information
For behavioural competencies expected from ESA staff in general, please refer to the ESA Competency Framework.
For further information please visit: Professionals, What we offer and FAQ

The working languages of the Agency are English and French. A good knowledge of one of these is required. Knowledge of another Member State language would be an asset.

The Agency may require applicants to undergo selection tests.

At the Agency we value diversity and we welcome people with disabilities. Whenever possible, we seek to accommodate individuals with disabilities by providing the necessary support at the workplace. The Human Resources Department can also provide assistance during the recruitment process. If you would like to discuss this further please contact us email contact.human.resources@esa.int.

Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal,

Romania, Spain, Sweden, Switzerland, the United Kingdom and Canada, Latvia, Lithuania and Slovenia.

According to the ESA Convention, the recruitment of staff must take into account an adequate distribution of posts among nationals of the ESA Member States*. When short-listing for an interview, priority will first be given to internal candidates and secondly to external candidates from under-represented or balanced Member States*. (https://esamultimedia.esa.int/docs/careers/NationalityTargets.pdf)

In accordance with the European Space Agency's security procedures and as part of the selection process, successful candidates will be required to undergo basic screening before appointment conducted by an external background screening service.

Recruitment will normally be at the first grade in the band (A2); however, if the candidate selected has little or no experience, the position may be filled at A1 level.
*Member States, Associate Members or Cooperating States.