



July 2023

Title: Junior Professional Officer – **Junior Geospatial Officer**
Bureau/Dept/Unit: **BR/TSD/BCD**
Supervision: Senior System Analyst, BR GIS Task Force project manager
Duration: 2 years (with option for renewal)
Location: ITU Headquarter – Geneva, Switzerland
Grade: **P2**

ITU is the United Nations specialized agency for information and communication technologies – ICTs.

We allocate global radio spectrum and satellite orbits, develop the technical standards that ensure networks and technologies seamlessly interconnect, and strive to improve access to ICTs to underserved communities worldwide.

ITU is committed to connecting all the world's people – wherever they live and whatever their means. Through our work, we protect and support everyone's fundamental right to communicate.

Today, ICTs underpin everything we do. They help manage and control emergency services, water supplies, power networks and food distribution chains. They support health care, education, government services, financial markets, transportation systems, e-commerce platforms and environmental management. And they allow people to communicate with colleagues, friends and family anytime, and almost anywhere.

With the help of our global membership, ITU brings the benefits of modern communication technologies to people everywhere in an efficient, safe, easy and affordable manner.

ITU membership reads like a Who's Who of the ICT sector. We're unique among UN agencies in having both public and private sector membership. So in addition to our 193 Member States, ITU membership includes ICT regulators, many leading academic institutions and some 700 tech companies.

In an increasingly interconnected world, ITU is the single global organization embracing all players in this dynamic and fast-growing sector.

The JPO would be based in ITU HQ in Geneva, Switzerland, an international and exciting city that host more than 190 international organizations. Geneva host more than two thirds of all UN activities and

is visited by nearly 3000 heads of states or similar officials every year. It is a great opportunity to be based at the heart of the diplomatic world, and meet people from across the globe.

A. Organizational Unit:

The Radiocommunication Bureau (BR) is responsible for the application of the Radio Regulations and for technical and administrative support of ITU World and Regional Radiocommunication Conferences, Radiocommunication Assemblies and Study Groups. The Bureau also carries out the international regulatory processes for registration of frequency assignments and satellite orbits and assists administrations in their coordination and implementation of frequency spectrum and orbit requirements as well as in resolving cases of harmful interference. It provides the specialised technical secretariat for the work of the Radiocommunication Study Groups and the Radiocommunication Assembly in the development of recommendations for spectrum utilisation and radio system characteristics. The BR is organised into four Departments: Space Services Department, Terrestrial Services Department, Informatics, Administration and Publications Department and the Study Groups Department.

Within the Radiocommunication Bureau, the Terrestrial Services Department (TSD) comprises three Divisions: Broadcasting Services Division (BCD), Fixed and Mobile Services Division (FMD), Terrestrial Publication and Registration Division (TPR). The Department is responsible for the application of the ITU Radio Regulations through the processing of frequency assignments notified by ITU Member States for terrestrial services both from a regulatory and technical point of view. In addition, the Department is responsible for the application of procedures associated with World and Regional Plans. It also provides assistance to ITU Member States on frequency selection and the treatment of cases of harmful interference. It is responsible for the application of operational and administrative provisions of the Radio Regulations, including safety of life aspects of the Aeronautical and Maritime Services. The Department edits and publishes all Terrestrial data publications. TSD also carries out studies and other activities for the preparation of World and Regional Radiocommunication Conferences.

B. Organizational context: (Describe the organizational setting of the post and the purpose of the post as well as any supervision given or received)

The Junior Professional Officer will work in the Terrestrial Service Department of the Radiocommunication Bureau, under the supervision of the BR GIS Task Force project manager, Senior System Analyst in the Broadcasting Service Division (BCD).

The Junior Professional Officer will:

Analyze all ITU Radiocommunication Bureau (BR) geospatial data (currently available in different formats and locations) and develop related tools and procedures needed for the establishment, maintenance and operation of a production BR Geospatial Information Management system.

Contribute the development of new and enhancement of existing maps in software applications.

C. Duties, responsibilities and key results expected: *(will be evaluated by Classification Officer)*

The Junior Professional Officer will:

1. Contribute the storage, maintenance and update of all relevant BR data (raster and vector data) in the appropriate Geospatial datastore.
2. Contribute to the establishment of a BR production Geospatial Information Management System and develop related administration procedures.
3. Develop software for providing data access and visualization (web display, direct download, API development).
4. Develop new and update existing BR dedicated maps, dashboards and other visualization products.
5. Develop procedures and workflows for the management of geospatial information.
6. Promote the usage of harmonized geospatial tools within the Bureau and support activities to increase their awareness.
7. Organize relevant training for BR Task Force Members.
8. May perform additional duties upon request.

D. Work relations and contact *(Describe the level of contacts by title (colleagues, collaborators, suppliers, clients, media, major donors), the skill used in developing and maintaining the contacts (such as to exchange information, persuade, advocate, build alliances, make commitments for the Organization or represent service or ITU) as well the purpose behind and the frequency of contacts)*

The Junior Professional Officer will work in cooperation with other members of the BR Geospatial Task Force.

The Junior Professional Officer will also liaise with other ITU colleagues from different Sectors in the frame of the ITU Geospatial Task Force as well with colleagues from the United Nations Geospatial Network.

E. Competencies

Core Competencies: Applying Expertise; Effective Communication; Learning and Knowledge Sharing; Organizational Commitment; Results-Focused, and; Teamwork and Collaboration.

Essential Functional Competencies: Analysis, Judgement and Decision Making ☒; Client and Service Orientation ☒; Innovation and Facilitating Change ☒; Leadership ☐; Networking and Building Partnerships ☐; Planning and Organising ☐; Successful Management ☐

Essential Technical Competencies *(Examples of technical competencies are knowledge of regulatory frameworks, ERP or project management methodologies, etc.):*

- Ability and willingness to learn and stay up-to-date with new technologies.
- Good knowledge of database management, spatial analysis, mapping, experience in programming languages, enterprise management, development of spatial methodologies and/or quality control.
- Ability to work with various sources of geospatial data formats and produce data visualizations
- Good working knowledge of open-source GIS software (i.e. GeoServer, QGIS, GDAL), Python or JavaScript language is required. Good working knowledge of SQL Server and web programming with Open Layers would be an advantage as well as some experience of Machine Learning techniques for geospatial problems.
- Ability to support/deliver technical trainings would be an advantage.

F. Qualifications required

1. Education:

University degree in computer science or telecommunications with some specialization in geospatial field, or in geoinformatics (geomatics), geospatial information, Earth sciences, remote sensing or other related geoscience and data field, OR education from a reputed college of advanced education with a diploma of equivalent standard to that of a university degree in one of the fields above.

2. Work experience:

At least three years of progressively responsible experience in the field of the post, with at least one year in geospatial information management, applied spatial analytics, mapping, data visualization. An advanced degree in a related field can be considered as a substitute for one year of working experience. A doctorate in related fields can be considered as a substitute for two years of working experience

3. Languages:

Knowledge of one of the six official languages of the Union (Arabic, Chinese, English, French, Russian, Spanish) at advanced level and knowledge of a second official language at intermediate level. Knowledge of a third official language would be an advantage. (Under the provisions of Resolution No. 626 of the Council, a relaxation of the language requirements may be authorized in the case of candidates from developing countries: when candidates from such countries possess a thorough knowledge of one of the official languages of the Union, their applications may be taken into consideration.)

G. Training and Learning Elements:

The candidate will acquire excellent knowledge and experience of:

- Geospatial data and software used in the BR for performing propagation prediction calculations and technical examinations.

- Open-source geospatial tools
- Development of maps and their integration in BR software
- Working in a multicultural, multi-national environment

Learning will take place through participation in geospatial training and by mentoring/coaching/on-the-job training

H. Additional information regarding the post *(Additional space for comments that have not been mentioned in the above sections, if any.)*