



International Civil Aviation Organization

Secondment Opportunity

POSITION INFORMATION

Post Title:	Technical Officer, Communications, Navigation and Surveillance	Duration of Secondment:	Two years
Grade Level:	P-4	Deadline for applications:	
Duty Station:	Montréal, Canada	Date for entry on duty:	As soon as possible.

THE ORGANIZATIONAL SETTING

The Air Navigation Bureau (ANB) is responsible for providing technical guidance to the Air Navigation Commission (ANC), the Council, and the Assembly. The Air Navigation Bureau provides technical expertise in aviation-related disciplines to States, industry and all elements of the Organization. The Bureau is also responsible for maintaining and supporting implementing the Global Aviation Safety Plan (GASP) and Global Air Navigation Plan (GANP), including its aviation system block upgrades as well as producing yearly safety and air navigation status reports. The Bureau develops technical studies and proposals for Standards and Recommended Practices (SARPs), and Procedures for Air Navigation Services (PANS) for further processing by the governing bodies of ICAO. The Bureau also develops related procedures and guidance material. The Bureau also manages the Universal Safety Oversight Audit Programme (USOAP) and Continuous Monitoring Approach that monitors all States on a continuous basis.

The Communications Navigation Surveillance and Frequency Spectrum (CNSS) Section is the primary focal point within the Bureau for standardization and implementation support of aeronautical communication, navigation and surveillance systems as well as aeronautical radiofrequency spectrum management. The Section advises States, Council and the Air Navigation Commission on CNSS matters and has the overall responsibility for Annex 10 – Aeronautical Telecommunications and other CNS related Guidance Documents. It maintains a primary coordination role with the International Telecommunication Union (ITU) and CNS related industry.

In addition, the CNSS Section conducts studies and manages work programmes aimed to evolve the required CNS systems roadmap and frequency spectrum access strategy and its rollout plans, in the short, medium and long term, in a performance based and service-oriented manner.

The incumbent reports to the Chief of the CNSS Section. The post focuses on communications, navigation and surveillance (CNS) systems and radiofrequency spectrum management. The incumbent will also carry out additional duties and responsibilities as assigned by the Supervisor and collaborate closely with other Technical Officers in the Bureau and with Regional Offices for all CNSS-related matters.

MAJOR DUTIES AND RESPONSIBILITIES

Function 1 (incl. Expected results)

Provides technical support in the drafting of proposals related to the amendment and implementation of technical annexes to the ICAO Convention and other ICAO regulatory documents, achieving results such as:

- Analyse problems raised by States and international organizations—particularly in the areas of communications, navigation and surveillance (CNS) systems and radiofrequency spectrum management—and recommend appropriate solutions
- Propose amendments to Annexes and related guidance material (e.g. manuals) to reflect operational needs, facilitate implementation, and address emerging trends and technological developments.
- Maintain the awareness of significant trends and technological developments in the field of CNS systems and spectrum management.
- Prepare technical studies and working papers for the ANC, international meetings, etc. relating to operational procedures and technical aspects of CNS systems and to spectrum management.
- Analyse and draft proposals related to the amendment and/or implementation of relevant technical Annexes to the Convention and other ICAO documents in the areas of CNS, in particular aeronautical radionavigation, with emphasis on CNS systems resilience to Radio Frequency Interference (RFI), including increased resilience of the Global Navigation Satellite System (GNSS) to jamming and spoofing, and high-level principles on how to integrate CNS ground, space and on-board systems and capabilities and evolve Positioning, Navigation and Time (PNT) solutions to obtain more resilient PNT services.

- Prepare reports on analyses of technical/operational aspects of civil aviation, and prepare working papers, reports, briefs, correspondence, etc. Review and develop related global guidance.
- Support ICAO panels and study groups as may be necessary to ensure relevant coordination in the building of global provisions and guidance.

Function 2 (incl. Expected results)

Drafts working papers for the ICAO Council, ANC and international meetings on matters related to CNS systems and spectrum management, achieving results such as:

- Develop comprehensive working papers, State letters and other documentation required to present Annex amendment proposals and ICAO technical and policy material related to spectrum management to the ANC and ICAO Council to facilitate technical discussions.
- Participate in the discussion of such papers and provide support information as needed.
- Conduct the necessary follow up actions resulting from the discussion of the papers during panel and working group meetings.

Function 3 (incl. Expected results)

Supports the Secretaries of the various Panels of the ANC and other expert groups managed by the CNSS section, achieving results such as:

- Provide comprehensive analysis of issues raised by States and international organizations in the field of CNS systems and spectrum management, particularly with respect to resilience of GNSS and other radionavigation systems against RFI.
- Provide solutions to technical issues in support of the ANC and Council.
- Develop meeting documentation to facilitate effective technical discussions including working papers, presentations and reports.
- Provide guidance on ICAO procedures and methodologies for standards making.
- Review draft proposals from the study groups and/or panel working groups for quality and consistency with ICAO policies.
- Communicate effectively and coordinate with panel members, other ICAO Sections and technical bodies.
- Review and report on panel activities and proposals from the Secretariat, panels, and/or study groups for consideration by the ANC.

Function 4 (incl. Expected results)

Supports a multidisciplinary study project to evolve CNS systems and aeronautical frequency spectrum in the medium and long term, including the following objectives:

- Develop a draft initial roadmap for CNSS evolution in the medium and longer term.
- Define a new/streamlined SARPs and Standards Framework, leveraging a more performance-based approach for Annex 10
- Scope out models for direct Industry participation in the ICAO Standards making process.

Function 5 (incl. Expected results)

Drafts correspondence, technical studies and publications for transmittal to Member States and international organizations, achieving results such as:

- Draft replies providing specialized advice and assistance to States, air navigation services providers, international organizations, public and or stakeholders on CNS systems and spectrum management.
- Draft and review ICAO publications, such as technical manuals and circulars related to CNS and spectrum management.
- Draft working/information papers for Assembly, Council and other governing bodies, as required.
- Undertake missions to States, and advocate ICAO's position at meetings of other Organizations.

Function 6 (incl. Expected results)

Provides advice, guidance and technical expertise on CNS systems and radiofrequency spectrum management to the Assembly, Council and Air Navigation Commission (ANC), achieving results such as:

- Act as subject matter expert on CNS systems and spectrum management matters, providing recommendations for mitigating potential risks to aviation safety issues related to such matters.
- Draft, either individually or by managing a group, working and information papers for the Assembly, Council, and other governing bodies, as required.
- Communicate developments of units/section/branch by preparing and/or delivering presentations as required.
- Deliver technical training, internal or external, as required.
- Represent ICAO at seminars, workshops, meetings, as required.
- Assist with the development of technical briefings and prepare and update presentation to the Assembly, Council, ANC and to various panels.

Function 7 (incl. Expected results)

Performs other related duties, as assigned.

IMPACT OF THE OUTCOME OF THE POSITION

The position directly facilitates the development of appropriate technical guidance materials relating to safety and efficiency of air navigation systems used by international civil aviation. The impact of the key functions of the Organization as a whole are significant as the managers and staff should be enabled to fully benefit from the incumbent's subject matter expertise in projects.

The role greatly contributes to the effectiveness of the CNSA Section and client perception of its services in terms of a timely accomplishment of requirements, guidance materials, report and events related to the modernization of the aviation industry.

WORK RELATIONS AND CONTACTS

The incumbent establishes relationships with other technical officers of the ANB to consult and coordinate on the development and implementation of technical provisions, requirement, operational procedures and guidance materials covering communications, navigation and surveillance systems and matters related to the efficient use of aeronautical frequency spectrum. Furthermore, s/he needs to interact with representatives from the Air Navigation Commission, States, the greater United Nations (UN), international organizations and industry including discussion on the interpretation of standards and recommended practices, as well as general technical issues.

The incumbent will coordinate with TO within the ANB, other Bureaus and Regional Officers in relation to activities related to aeronautical communications, navigation, surveillance and aeronautical frequency spectrum, in particular those related to Annex 10. S/he will work closely with other TOs of the CNSA Section on the various projects managed by the Section and assist with the management of the Panels and other expert groups managed by CNSA.

QUALIFICATIONS AND EXPERIENCE

Education

Essential

An advanced-level university degree (Master's degree or academic equivalent) in engineering (telecommunications) In preferably with focus on telecommunications, radio frequency and/or information technology is required. A first-level university degree in combination with two additional years of qualifying experience in engineering (telecommunications), or related field, may be acceptable in lieu of the advanced university degree.

Professional experience

Essential

- A minimum of seven (7) years of experience in the technical, operational and procedural aspects of aeronautical communications, navigation and surveillance (CNS) including radiofrequency spectrum management, in an international environment.
- Experience in project planning/management.

Desirable

- Experience of work in the ICAO framework, through relevant expert/regional ICAO bodies.

Languages

Essential

Fluent reading, writing, and speaking abilities in English.

Desirable

A working knowledge of any other language of the Organization (Arabic, Chinese, French, Russian, Spanish).

Competencies

Professionalism: Knowledge of civil aviation infrastructure and ICAO's role, functions and documentation. Familiarity with ICAO institutional objectives and air navigation planning framework. Good knowledge of ICAO provisions related to CNS and aeronautical spectrum management, including ICAO Annex 10, in particular aeronautical radionavigation, with emphasis on CNS and GNSS systems resilience to RFI, including jamming and spoofing. Sound knowledge of modern radio frequency and digital technologies for ground and satellite-based aeronautical CNS infrastructure and familiarity with conventional CNS technologies and the current state-of-the-art in PNT solutions. Familiarity with radio frequency spectrum issues and the role of the International Telecommunication Union (ITU). Knowledge of ICAO functions, organization and international activities in fields other than CNS and spectrum management. Shows pride in work and in achievements; demonstrates professional competence and mastery of subject matter; is conscientious and efficient in meeting commitments, observing deadlines and achieving results; is motivated by professional rather than personal concerns; shows persistence when faced with difficult problems or challenges; remains calm in stressful situations. Takes responsibility for incorporating gender perspectives and ensuring the equal participation of women and men in all areas of work.

Accountability: Takes ownership of all responsibilities and honours commitments; delivers outputs for which one has responsibility within prescribed time, cost and quality standards; operates in compliance with organizational regulations and rules; supports subordinates, provides oversight and takes responsibility for delegated assignments; takes personal responsibility for his/her own shortcomings and those of the work unit, where applicable.

Communication: Speaks and writes clearly and effectively; listens to others, correctly interprets messages from others and responds appropriately; asks questions to clarify, and exhibits interest in having two-way communication; tailors language, tone, style, and format to match the audience; demonstrates openness in sharing information and keeping people informed.

Teamwork: Works collaboratively with colleagues to achieve organizational goals; solicits input by genuinely valuing others' ideas and expertise; is willing to learn from others; places team agenda before personal agenda; supports and acts in accordance with final group decision, even when such decisions may not entirely reflect own position; shares credit for team accomplishments and accepts joint responsibility for team shortcomings.

Planning and Organizing: Develops clear goals that are consistent with agreed strategies; identifies priority activities and assignments; adjusts priorities as required; allocates appropriate amount of time and resources for completing work; foresees risks and allows for contingencies when planning; monitors and adjusts plans and actions as necessary; uses time efficiently.

Technological awareness: Keeps abreast of available technology; understands applicability and limitations of technology to the work of the office; actively seeks to apply technology to appropriate tasks; shows willingness to learn new technology.

MODE OF SECONDMENT

The duration of the secondment is two years, which can be extended for an additional year. The secondee is expected to work five days per week.

ICAO may avail itself of the services of personnel seconded by governments, other international agencies or educational, scientific, research or other institutions. Seconded personnel are engaged under a Trust Funded or Gratis (detached expert) arrangement, in accordance with terms and conditions stipulated in a Memorandum of Understanding between ICAO and sponsor of the seconded person. During the period of assignment with ICAO the seconded individual will be considered an "Official" of ICAO.

Once engaged by ICAO the seconded individual will be under the sole authority of the Secretary General of ICAO and all relationship with the releasing Government/Agency will be held in abeyance during the period of employment with ICAO.

As detached expert: The individual is detached from the releasing Government/Agency but is assigned to work for ICAO.

Trust Fund arrangement: Funds are deposited by the Government/Agency with ICAO for the purpose of engaging personnel normally subject to the stipulations of a Memorandum of Understanding.

NOTICE TO CANDIDATES

ICAO does NOT charge any fees or request money from candidates at any stage of the selection process, nor does it concern itself with bank account details of applicants. Requests of this nature allegedly made on behalf of ICAO are fraudulent and should be disregarded.