



CITEL

PROFESSIONAL DEVELOPMENT SCHOLARSHIP PROGRAM

“M9-100 - Radio Frequency Spectrum Management”

OAS/DHD-CIR.010/2009

1. **Study venue:** National Telecommunications and Information Administration (NTIA), U.S. Department of Commerce, 1401 Constitution Avenue, NW, Washington, DC 20230, United States of America
2. **Offered by:** NTIA, Comsearch and ARRL – The National Association for Amateur Radio under the auspices of the United States Telecommunications Training Institute (USTTI), Regional Training Center of the Inter-American Telecommunication Commission (CITEL).
3. **Coordinator:** James O'Connor, USTTI Curriculum Coordinator, Email: joconnor@ustti.org Phone: (202) 785-7373, Fax: (202) 785 1930
4. **Modality:** On site
5. **Start and end dates:** March 30 – April 10, 2009
6. **Course duration:** Two weeks
7. **Language:** English
8. **Objectives:** Developing and managing a national radio frequency spectrum management agency requires a highly trained, technical staff to meet the daily as well as long-range spectrum requirements resulting in the implementation of new systems and technologies. This course addresses the various elements required to plan, organize, manage, and control an effective spectrum management agency with the developing nation in mind. Participants will be introduced to spectrum management principles, national spectrum planning and policy, engineering analysis, and computer-aided techniques. In addition, the course will introduce technological and regulatory changes that have taken place over the past few years.

The course generally covers these processes in detail, including sections on international and domestic legal and regulatory foundations, and typical bilateral and multilateral agreements. The organization of a spectrum management agency is presented as a class exercise with the class participants developing the organizational structure of an agency of a developing country. Frequency assignment methods are emphasized and new marketplace forces such as auctions and spectrum fees and charges are presented.

Computerization of the spectrum management processes is presented including a demonstration on the latest spectrum management software. Special sessions are taught on engineering analysis, electromagnetic compatibility, spectrum measurements and monitoring, propagation, and technical standards. The radio services with great interest, such as land mobile communications and satellite communications, are given special attention.

9. **Participant Learning Objectives:** Participants will be able to: (1) understand the appropriate principles and policies of an effective radio frequency spectrum management program; (2) identify, evaluate, and select the appropriate management techniques to establish and operate radio frequency assignment

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and associated planning processes; (3) recognize, assess, and select appropriate technical support programs for engineering and electromagnetic compatibility; (4) understand the procedures and elements required to plan, develop, and specify computer hardware and software for a computer-aided national spectrum management system; and (5) initiate or review overall regulatory plans for new or expanded radio services, as well as potential improvements in existing regulatory processes.

- 10. Methodology:** The course is taught primarily by experts from the National Telecommunications and Information Administration (NTIA), the President's principal adviser on telecommunications matters, and manager of the federal government's use of the spectrum. Comsearch experts will present spectrum management computer-aided techniques for frequency engineering of land mobile and cellular systems, microwave radio relay communications, and satellite-Earth station coordination. The national association for Amateur Radio (ARRL) will present an overview of modern spectrum management automation addressing national spectrum management architectures, strategic spectrum planning, and frequency assignment and licensing. Specific modeling techniques, appropriate for spectrum management, will be covered.
- 11. Requirements:**
- a. Citizenship or permanent residence of an OAS Member State, with the exception of the United States since is the host country.
 - b. Participant profile: Managerial with technical emphasis of the telecommunications sector, such as stakeholder analysis and consensus development, with an emphasis on policymaking processes in the regional and global environment during technology transitions with at least three years of experience in the radio frequency spectrum management area.
 - c. Submission of completed application form by the deadline set by the National Liaison Organization (ONE).¹ It is the candidate's responsibility to ascertain the deadline set by the ONE in his or her country of residence
 - d. In addition to the OAS application, applicants must also submit a formal application through the USTTI. Applications may be filed through USTTI's web site: <http://ustti.org>
- 12. OAS Scholarship Selection Criteria:** In accordance with article 4.2 of the Manual of Procedures of the Scholarship and Training Programs of the OAS, OAS scholarships shall be granted based on the following criteria:
- e. the objectives and priorities established in the Strategic Plan for Partnership for Development;
 - f. the training priorities of the member states;
 - g. the merits and overall credentials of the candidate, including his/her academic and professional background;
 - h. the financial need of the candidate; and
 - i. An extensive and equitable geographic distribution for the benefit of all member states and that takes into account the greater needs of the smaller and relatively less developed economies.
- 13. Benefits:**
- For successful candidates, OAS/CITEL will cover round trip economy class air tickets from country of origin or residence to Washington, DC, United States of America. ²
 - USTTI will provide a stipend of \$400.00 to offset hotel and living expenses, as well as waiving the \$150.00 administrative fee.

¹ The deadline for presentation of applications to the (ONE) differs from country to country and should therefore be confirmed with the relevant ONE in the applicant's country of origin or permanent residence.

² Funds for terminal and in-transit expenses are NOT provided

14. Responsibilities of selected candidates: Based on shared accommodations and an arrival date of Sunday, March 29th and departure date of Saturday, April 11th, the additional amount needed for this course is USD\$1,120.00.

Please be advised that:

- 1) The accommodation that is being provided requires participants to share hotel rooms, and
- 2) Each participant will have to pay an additional amount of US\$1,120.00 to share in the cost of accommodation.

- The selected candidates must confirm their acceptance to the OAS General Secretariat Office in their respective countries and through the ONE in order for the OAS to proceed with making the necessary travel arrangements to purchase the air travel tickets, economy class, round-trip, between their country of origin or residence and the study location or, if the scholarship is refused, to appoint another candidate.
- **The selected candidates must confirm their acceptance of the scholarship by signing and returning to DHD their completed “form of acceptance of the scholarship award”; only after this has been done will the OAS proceed with the necessary travel arrangements to purchase the air travel tickets, economy class, round-trip, between the scholarship recipient’s country of origin and the study location.**
- Upon selection, candidates must accept the scholarship by confirming their availability to follow the course during the period indicated and their acceptance of the duly provided conditions of study.
- Selected scholarship recipients are responsible for obtaining the necessary visa(s) to enter the country of study and the corresponding transit(s). The OAS will not be responsible for any costs related to obtaining visas or transfer documentation.
- Each scholarship recipient is responsible for arriving in time for the commencement of activities on the date established by the institution offering the course or program.
- If the scholarship recipient fails to travel on the scheduled dates, or change routes, after the General Secretariat of the Organization of American States (GS/OAS) has purchased his/her travel ticket, he/she will be responsible for paying the difference in ticket costs in order to arrive at the course site in time. The scholarship recipient will furthermore have to **reimburse** the GS/OAS the total cost of the airfare for his/her travel from his/her country of residence to the site where the Professional Development Course will take place and back if, after the ticket has been purchased, he/she declines the scholarship without written authorization from the Department of Human Development.
- The latter includes any additional costs, if any, incurred by the GS/OAS, such as extra costs for accommodation during the scholarship recipient’s travel to and from the country where the course will be held.
- If the fellow declines, cancel or terminates the Scholarship after the course or program has started without giving enough proof to the OAS/GS, he or she must **reimburse** OAS/GS the total amount of incurred costs/expenses.

15. Certification: The participants will receive a diploma from the United States Telecommunications Training Institute (USTTI), regional Training Center of the Inter-American Telecommunication Commission.

16. Presentation of candidacies:

Please Notice: *If you were awarded an OAS Professional Development Scholarship in the past twelve (12) months or if you currently hold an OAS Scholarship for Academic Studies, you are not eligible to apply for another Professional Development Scholarship.*

The online application form must be completed on-line and can be accessed at: <http://www.educoas.org/portal/en/oasbecas/onsite.aspx?culture=en&navid=282> here you'll find the announcements of all the onsite courses, click in the one you are interested in, go through the end of the page, and then you'll find the **Continue** button which will direct you to the online application form.

Once the applicant has completed the online application form and submitted it, a copy will be sent automatically to his/her e-mail account. This completed form must be printed, signed and submitted to the

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National Liaison Office (ONE) with all other forms
(<http://www.educoas.org/portal/en/oasbecas/formspd.aspx?culture=en&navid=282>)

All the additional forms must be completed electronically or in typewritten format.

The following is the list of National Liaison Organizations (ONEs) in the OAS Member states:
<http://www.educoas.org/portal/en/oasbecas/ones.aspx?culture=en&navid=282>

Please note that the official announcement is published in the language of instruction of the course and is available via the Educational Portal of the Americas Web page at: <http://www.educoea.org>.

Any questions regarding submission of applications for this course should be sent to: PDSP@oas.org

IMPORTANT NOTICE: THESE SCHOLARSHIPS ARE SUBJECT TO THE AVAILABILITY OF FUNDS CORRESPONDING TO THE 2009 REGULAR BUDGET

Department of Human Development

LZea-Yonker/ M9-101 – Radio Frequency Spectrum Management/CITEL-USTTI/USA/2009