**ITU Seminar for Americas Region**

**(Manta, Ecuador, 20-21 September 2012)**

**SCIENCE SERVICES:**

**REGULATORY, TECHNICAL AND PRACTICAL IMPLICATIONS**

**SEMINAR PROGRAM**

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| **Thursday, 20 September** |
| 8.30-9.30 | **Registration** |
| 9.30-10.30 | **Opening session** |
| **Opening speech**, Jaime HERNÁN GUERRERO RUIZ, Minister of Telecommunications and Information Society, Ecuador**“Magistral Presentation of the Civilian Space Agency of Ecuador EXA”,** Ronnie NADER, Cosmonaut/ASM Commander Space Operations Division Director, Ecuadorian civilian space agency (EXA)**“Orbital Vigilance Satellites ”** Ronnie NADER, Cosmonaut/ASM Commander Space Operations Division Director, Ecuadorian civilian space agency (EXA) |
| 10.30-11.00 | **Coffee break** |
| 11.00-12.30 | **Session 1: International regulation for science service**  |
| **“ITU and ITU-R”**, Vadim NOZDRIN, Study Group Counselor, Radiocommunication Bureau, ITU **“Space science activities in the ITU”**, John ZUZEK, Vice-Chairman, ITU-R Study Group 7, National Aeronautics and Space Administration (NASA), USA **“The activities of the Space Frequency Coordination Group (SFCG)”**, Edoardo MARELLI, Chairman, ITU-R Working Party 7C, European Space Agency (ESA) |
| 12.30-14.00 | Lunch |  |
| 14.00-15.30 | **Session 2:** Time signals and frequency standard emissions |
| **“Role of ITU-R in time and frequency dissemination”**, Ronald BEARD, Chairman, ITU-R Working Party 7A, US Naval research laboratory, USA**“Future of Coordinated Universal Time UTC”**, Elisa Felicitas ARIAS, The International Bureau of Weights and Measures (BIPM)**“LF Time and Frequency broadcast systems”**, Wayne HANSON, National Institute of Standards and Technology (NIST), USA |
| 15.30-16.00 | **Coffee break** |  |
| 16.00-17.30 | **Session 3: Space research and space operation services** |
| **“Communicating with SRS and EESS satellites”**, Bradford KAUFMAN, Chairman, ITU-R Working Party 7B, National Aeronautics and Space Administration (NASA), USA **“SRS (deep space) communications”**, Farzin MANSHADI, Jet Propulsion Laboratory, USA **“Communication aspects of human space missions”**, Cathy SHAM, NASA Johnson Space Center, USA**“Regulatory requirements of nano- and pico-satellites”**, Tomas GERGELY and Andrew CLEGG, National Science Foundation, USA  |
| Questions |

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| **Friday, 21 September** |
| 09.00-10.30 | **Session 4: Satellite RF sensors (active and passive)**  |
| **“Radio frequency sensing from space”**, Edoardo MARELLI, Chairman, ITU-R Working Party 7C, European Space Agency (ESA)**“Passive RF sensing”**, Jean PLA, Centre National d'Etudes Spatiales (CNES), France**“Active RF sensing”**, Bryan HUNEYCUTT, Jet Propulsion Laboratory, USA |
| 10.30-11.00 | **Coffee break** |
| 11.00-12.30 | **Session 5: Meteorological-satellite radiocommunications** |
| **“Overview of geostationary and non-geostationary MetSat systems”**, Markus DREIS, European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT)**“How your weather forecast is made - its dependence on passive microwave data from satellites”**, Richard KELLEY, Alion Science And Technology, USA**“Distribution of MetSat data”**, Jose ARIMATEA DE SOUSA BRITO, World Meteorological Organization (WMO)**“An overview on the Data Collection Systems: case of low orbiting satellites”**, Jean PLA, Centre National d'Etudes Spatiales (CNES), France **“GOES Data Collection System”, Richard KELLEY,** Alion Science And Technology, USA |
| Lunch |
| 14.00-15.30 | **Session 6: Meteorological aids service (radiosondes) and other systems** |
| **“Radiosonde Operations”**, Robert DENNY, National Oceanic and Atmospheric Administration (NOAA), USA**“Radiosonde spectrum issues”**, Davide FRANC, National Oceanic and Atmospheric Administration (NOAA), USA |
| 15.30-16.00 | **Coffee break** |
| 16.00-17.30 | **Session 7: Radio astronomy and radar astronomy** |
| **"Radio Astronomy: A special window to the universe"**, Tasso TZIOUMIS, Chairman, ITU-R Working Party 7D, Australia Telescope National Facility, Australia**"Radio astronomy and radar astronomy: Latin-American’s prospectives"**, Tomas GERGELY, National Science Foundation, USA **"Spectrum regulation and RAS: Keeping the window clean"**, Andy CLEGG, National Science Foundation, USA **"Radioastronomy and the future "**, Masatoshi OHISHI, Chairman, Scientific committee on frequency allocations for radio astronomy and space science (IUCAF), Japan  |
| 17.30-18.00 | Closure |