SnT 2025 8 SEPTEMBER ONLINE DAY 9 TO 12 SEPTEMBER AT HOFBURG PALACE, VIENNA & ONLINE
CTBT: SCIENCE AND TECHNOLOGY CONFERENCE

P5.2-424

Enhancing Operational Excellence: A Comprehensive Training Strategy for IMS Station Operators

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CTBTO PREPARATORY COMMISSION

INTRODUCTION AND MAIN RESULTS

In this poster, we present a revised International Monitoring System (IMS) training strategy designed to support data production within the IMS network, strengthen the expertise of Station Operators (SOs), and enhance operational excellence. By combining tailored training programs that address varying levels of SO technical experience and roles, with blended learning and interactive e-learning, the strategy ensures compliance, develops both technical and managerial skills, and fosters a global network of proficient operators, ultimately improving data production across the IMS network.

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Station Operators Training Needs

Operational Proficiency: Ensure SOs are fully competent in station operations to maintain high data availability (98%, 95% for RN stations) and to fulfil contractual obligations for Station Operators under Post-Certification Activities (PCA).

Continuous and Refresher Training: Initial training for newly designated station operators, refresher courses for existing SOs to retain knowledge and reinforce standardized procedures, and additional training when stations undergo major upgrades or adopt new technologies.

Tailored Programs for Varying Expertise: Address different levels of technical experience among SOs and Local Operators (LOs), and provide specialized training modules for SOs managing multiple stations with diverse technologies.

Geographical Considerations: Recurrent training for SOs at isolated stations with high turnover to ensure operational continuity.

Modern Training Methods: Blended learning combining in-person trainings/workshops and online training modules, Simulation-based exercises, virtual reality, gamification, microlearning, and peer mentoring; flexible and dynamic approaches to accommodate different learning styles and reduce costs.

Ongoing Development: Continuous skill enhancement to adapt to evolving IMS technologies, with focus on maintaining operational standards across the IMS network.

Methods

E-Learning: The PTS offers 33 e-learning modules on CTBT, IMS operations, and verification technologies, requiring 80% completion via the Knowledge and Training Portal (KTP) before in-person training, with certificates awarded and content regularly updated.

In Person Training Courses:

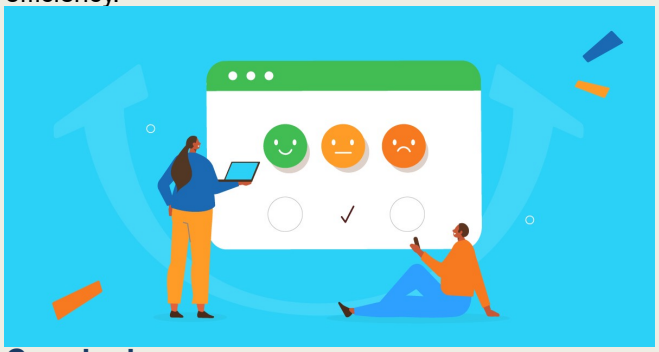
In-Situ Training: PTS technical visits to IMS stations include in-situ training on operations and troubleshooting.

Remote Software Training (RST): Provides SOs with interactive instruction on software use, configuration, and troubleshooting as needed.

Training cycle and Frequency: SO trainings are structured into Basic, Intermediate, and Advanced levels, with procedure-based, hands-on, and trainer courses tailored to specific needs and regularly updated.

Quality Control of trainings

Quality control ensures the effectiveness of training through systematic evaluation, feedback, and corrective actions. When objectives are not fully met, additional training is provided to address identified gaps. The impact of training is measured through site visits, assessments, and key performance indicators (KPIs), including response times and problem-resolution efficiency.



Conclusions:

The sustainment of IMS stations depends on multiple factors, with training for Station Operators (SOs) playing a key role. This revised training strategy enhances SO capabilities in operations and maintenance, enabling them to perform their responsibilities effectively and efficiently, while contributing to the overall operational excellence and reliable data production of the IMS network.

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