Concept of Operations | Information Management Working Group

1. Introduction

1.1 Purpose The purpose of this Concept of Operations (CONOPS) is to outline the operational approach, objectives, and key activities of the Information Management Working Group (IMWG) over the next five (5) years. This document will serve as a guide for the planning, development, and implementation of Information Management products that IMWG will develop to support INSARAG decision-making and operations. (Satellite AI products, Classifier support tools, data sharing)

1.2 Scope This CONOPS applies to the development and deployment of IM Systems across the INSARAG. It covers the systems lifecycle, from initial requirements gathering through design, development, testing, deployment, and ongoing maintenance. The focus is on creating systems that are user-friendly, reliable, scalable, and capable of meeting the information needs of the INSARAG network.

1.3 Objectives

- Develop a range of IM products that aligns with the networks identified needs post the Türkiye/Syrian debriefs (AAAR).eg: (Satellite AI products, Classifier support tools, data sharing)
- Ensure that the ICMS 3.0 is a priority product that build to be adaptable to various operational environments.
- Foster collaboration between all stakeholders, including other UN entities and donor countries.
- Provide a framework for continuous improvement and scalability of the IM products, especially ICMS.
- Build sustainability and succession into the IMWG.

2. Operational Overview

2.1 Operational Context : IMWG operates within a rapidly changing environment where the need for timely and accurate information is critical. The systems developed by the group must support a wide range of functions, including decision support, data analysis, reporting, and communication across the INSARAG network.

2.2 Key Assumptions

- The ICMS will be used by INSARAG USAR teams, but also provided to teams and countries during their integration into INSARAG.
- The security and sustainability of the IMWG to develop and support IM products across the INSARAG network needs to be a key consideration.
- The systems must be scalable to accommodate future growth and technological advancements within the Esri product suite.

- Stakeholder/Team engagement is critical for the successful development and implementation of especially ICMS, but also in future areas such as the use of satellite AI.

3. Roles and Responsibilities

3.1 IMWG Leadership

- **Co-Chairpersons:** Provide overall coordination and oversight of the IMWG activities and represent IMWG at INSARAG level meetings and workshops.
- **Technical Lead:** Manages the technical aspects of ICMS development, including architecture, coding standards, and integration.
- **Project Manager:** Oversees project timelines, resource allocation, and risk management.
- **Training Manager:** Leads the initial and ongoing training delivery, responsible for planning and scheduling training events as well as compiling and reviewing training material.

3.2 Sub-Groups

- **Requirements and Analysis Sub-Group:** Responsible for gathering and documenting user requirements, conducting needs analysis, and developing use cases.
- **Development and Testing Sub-Group:** Focuses on the actual coding, integration, and testing of the IMS components.
- **Deployment and Support Sub-Group:** Manages the rollout of the IMS to end-users and provides ongoing support and training.
- **Training subgroup:** Responsible to the development of a training program and planned delivery. (Links with Documentation subgroup)
- **Documentation subgroup:** Responsible to the development and creation of system documentation and training material.

3.3 Stakeholders

- **USAR teams:** Engagement with team leader through TL meetings and workshops
- **End-Users:** Provide input on system requirements and participate in testing and feedback sessions.
- **Esri:** Provides technical support and ensures compatibility with existing infrastructure.
- **Secretariat:** Supports intent and provides influence and resources and ensures alignment with network objectives.
- **Other UN agencies:**

4. Operational Phases

4.1 Requirements Gathering (Requirements and Analysis Sub-Group)

- implement the actions based on the analysis of AAAR Türkiye and Qatar meetings.
- Undertake design meetings (within IMWG) – all functions.
- Identify users types and needs for IM products within the wider network.
- Compile requirements into series of user stories
- Develop an understanding the desired functions and how the integrate to build an end state model to enable the design.

4.2 System(s) Design (Requirements and Analysis Sub-Group)

- ICMS 3.0 - Develop system architecture that supports the outcomes and findings of the AAR, and the QATAR debrief.
- ICMS 3.0 - Create detailed design documents, including data flow diagrams, interface designs, and schemas.
- ICMS 3.0Review design with stakeholders and proceed with technical design.
- Review the use of satellite and drone (UAS) imagery and how this can be best utilised into the INSARAG network.
- Understand the data sharing needs/possibilities for products produced.

4.3 Development (Development and Testing Sub-Group)

- Follow an Agile development process for product development.
- Conduct regular system reviews to ensure the progress is aligned to agreed outcomes.
- Maintain clear documentation of the development process.

4.4 Testing (Development and Testing Sub-Group)

- Perform unit, integration, and user acceptance testing.
- Gather user feedback and make necessary adjustments (Internal).
- Develop external (to IMWG) testing group (Teams)
- Gather external user feedback and make necessary adjustments.

4.5 Deployment (Deployment and Support Sub-Group)

- Plan and execute a phased deployment strategy (All products).
- Provide training sessions and user manuals to ensure smooth adoption.
- Monitor system performance and address any issues that arise during the rollout.

4.6 Maintenance and Continuous Improvement (Deployment and Support Sub-Group)

- Establish a helpdesk to support users and handle incidents. (May require extra staff specifically for this role)
- Regularly review system performance and gather feedback for future enhancements.
- Plan and implement updates and upgrades as needed.

5. Training (Training Sub-Group)

5.1 Training content

- **Clear Objectives**: Start with specific learning goals for each session.
- **Engaging Format**: Use a mix of videos, slides, and interactive elements.
- **Real-Life Examples**: Incorporate case studies or scenarios relevant to participants.
- **Hands-On Activities**: Include exercises or role-plays to practice skills.
- **Visual Aids**: Use infographics, charts, and images to enhance understanding.
- **Bite-Sized Modules**: Break content into manageable sections for easier retention.
- **Assessment Tools**: Include quizzes or assessments to gauge understanding.
- **Supplementary Materials**: Provide handouts, guides, or online resources for further learning.
- **Q&A Sessions**: Allocate time for questions to clarify concepts.

- **Feedback Mechanism**: Enable participants to give feedback on content for improvement.

5.2 Training delivery programs

- **Identify Objectives:** Define clear goals and desired outcomes.
- **Assess Needs:** Conduct a skills gap analysis to identify training needs.
- **Develop Content:** Create or curate relevant training materials and resources.
- **Choose Format:** Decide on delivery methods (in-person, online, hybrid).
- **Select Trainers:** Identify qualified instructors or facilitators.
- **Schedule Sessions:** Plan a timeline and frequency for training sessions.
- **Engage Participants:** Use interactive methods to enhance learning (discussions, hands-on activities).
- **Gather Feedback:** Collect participant feedback for continuous improvement.
- **Evaluate Effectiveness:** Measure outcomes against objectives (surveys, assessments).
- **Follow Up:** Provide ongoing support and resources to reinforce learning.

6. Documentation (Documentation Sub-Group)

Documentation Development

- Clearly state the purpose and audience for the documentation.
- Identify Requirements (System, Training)
- Collect input from stakeholders to identify essential content.
- Develop Content
- Create Training Materials
- Develop user guides, quick reference sheets, and FAQs.
- Review and Revise
- Get feedback from stakeholders and revise documentation accordingly.
- Test Documentation
- Ensure the content is user-friendly by conducting usability testing.
- Version Control
- Implement a system for tracking revisions and updates.
- Ensure documentation is easily accessible (e.g., online, print).
- Training Alignment
- Ensure training materials align with documentation content.
- Ongoing Updates
- Establish a process for regularly updating documentation as the system evolves.
- Distribution Plan
- Determine how and where the documentation will be shared with users.
- Feedback Loop

7. Performance Metrics

7.1 Key Performance Indicators (KPIs)

- **System Uptime:** Percentage of time the system is operational.
- **User Adoption Rate**: Percentage of intended users actively using the system.

- **User Satisfaction:** Survey-based metric gauging end-user satisfaction.
- **User Satisfaction**: Feedback scores from users regarding system usability and effectiveness.
- **Response Time:** Average time to address and resolve user issues.
- **Data Accuracy:** Percentage of accurate data entries and reports.
- **Training Effectiveness**: Improvement in user performance post-training on the system
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7.2 Field support effectiveness (IMWG)

- **Speed of standup** – How quickly is the remote team stood up
- **Effectiveness of support** - Quick identification and resolution of issues.
- **Availability** - Round-the-clock support for global or critical operations.
- **Sustainability** – The team is about operate for extended periods.
- **Skilled personnel** - Trained, knowledgeable staff capable of handling diverse issues.
- **Strong documentation** – Clear guides, FAQs, and troubleshooting resources for self-help

8. Risk Management

8.1 Potential Risks

- **Lack of funding:** Funding does not match the need.
- **IMWG sustainability:** Risk of key members leaving the working group.
- **Scope Creep:** Regularly review project(s) scope and adjust timelines as needed.
- **User Resistance:** Conduct change management activities to foster acceptance.

8.2 Mitigation Strategies

- Develop a succession plan.
- Engage network to secure long-term funding.
- Conduct regular reviews of projects and ensure effective reporting keep on track
- Provide ongoing training and support to ease the transition.

9. Conclusion

The IMWG is committed to delivering high-quality Information Management Systems that meets the networks needs and supports its strategic goals. By following this CONOPS, the working group will ensure a structured, efficient, and collaborative approach to system development and implementation.