



International Civil Aviation Organization

MIDANPIRG/21 & RASG-MID/11 Meetings

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Agenda Item 2.2: ICAO Global and Regional Aviation Safety and Air Navigation Developments

LEVERAGING ICAO'S IMPLEMENTATION SUPPORT PRODUCTS AND SERVICES TO ADDRESS THE NEEDS OF MID ANPIRG and RASG MEMBERS

(Presented by the Secretariat)

EXECUTIVE SUMMARY

In addition to its standards development role, ICAO provides critical support to Member States in their capacity-building efforts.

Formerly known as the Technical Cooperation Bureau, ICAO's Capacity Development and Implementation (CDI) Bureau is the primary instrument through which the Organization supports States in achieving their safety, efficiency, security, and sustainability goals.

This Information Paper highlights the diverse portfolio and capacity development and implementation support products and services available to support the needs of stakeholders throughout the Middle East Region.

Action:	<ol style="list-style-type: none">1. Note ICAO's enhanced portfolio of Capacity Development and Implementation Support Products and Services;2. Consider use of the same, as appropriate, to address the implementation support needs of States throughout the Middle East;3. Provide feedback to ICAO regarding opportunities to expand its catalogue of implementation support products and services; and4. Contact the Capacity Development and Implementation Bureau to explore how ICAO can help address current and future implementation challenges.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency• Economic Development of Air Transport• Environmental Protection
<i>References:</i>	<ul style="list-style-type: none">• Capacity Development and Implementation Support Activities• ICAO Training• Implementation Package (iPack) (icao.int)• ICAO's Policy on Implementation Support for States

1. Introduction

1.1 The need for more effective and globally coordinated implementation support has never been greater. The pace of innovation places significant demands on States to modernize their infrastructure and regulatory frameworks. Unfortunately, the pace of change presents challenges that many States are ill-equipped to address.

1.2 ICAO's audit data highlights that States, including those in the Middle East, continue to face significant challenges implementing ICAO Standards, particularly in areas such as Aerodromes and Ground Aids and Air Navigation Services. These are among the most important foundational elements of a safe and efficient air transportation system, and when they're improved, they deliver benefits that extend beyond national borders.

1.3 Deficiencies in these and other technical domains undermine the advancement of important global goals, including the full integration of remotely piloted aircraft, the development of advanced urban air mobility, or the achievement of our Long-Term Aspirational Goal for carbon emissions.

1.4 Given the significant interdependence of the global aviation system, all States are impacted by implementation challenges, regardless of where they occur.

1.5 ICAO's Capacity Development and Implementation Bureau (CDI) provides critical support to the aviation community in achieving its aviation objectives, leveraging its ever-expanding portfolio of products and services to meet the needs of all aviation stakeholders.

2. ICAO's Policy on Implementation Support

2.1 A new Policy on "ICAO Implementation Support Provided to States" was approved by the ICAO Council in March 2022, and presented to the 41st session of the ICAO Assembly. It serves to align the management of the Technical Cooperation (TC) and Technical Assistance (TA) programmes, projects, products, and services. It also strengthens the coordination and management of implementation support activities to better meet the needs of Member States.

2.2 ICAO's Strategic Objectives are reflected in its implementation support activities, which aim to assist Member States with the implementation of ICAO Policies, Plans, SARPs, PANS and guidance materials.

2.3 The new Policy has introduced a more holistic concept for managing the implementation support provided by the Secretariat, including the clear roles of ICAO's Technical Bureaus and the Regional Offices.

2.4 Furthermore, this Policy has facilitated a more holistic needs assessment methodology for use at regional and State levels, streamlined implementation support processes and procedures, strengthened governance mechanisms, improved voluntary funding prioritization and business intelligence tools. These allow ICAO to better serve Member States and the global air transport community.

2.5 Utilizing a collaborative, coordinated, and harmonized approach, the progressive implementation of the Policy has enabled a series of projects spanning multiple ICAO regions. These have focused on diverse civil aviation areas including, inter alia: assistance for the strengthening of the Civil Aviation System, assistance for Safety Oversight Systems, and capacity building for ATM infrastructure operations.

2.6 In line with ICAO's current transformational activities, an enhanced portfolio of capacity development and implementation support products and services is now available to Member States, helping them to achieve their near and long-term implementation objectives.

3. ICAO's Enhanced Portfolio of Products and Services

3.1 ICAO's portfolio of products and services has expanded to support Member States and other aviation organizations (e.g., regulatory bodies, airport authorities, air navigation service providers, accident and incident investigation offices, development partners, international and regional organizations) to undertake civil aviation projects and strengthen their institutional capacities in full compliance with ICAO Standards and Recommended Practices (SARPs).

3.2 Services provided under the umbrella of ICAO's capacity development and implementation support activities include:

3.2.1 Project Management, including planning, organizing, securing, and managing resources to achieve specific aviation goals and objectives. Project Management activities range from developing new airport and air navigation infrastructure, to the implementation of new safety or security SARPs.

3.2.2 Provision of Subject Matter Expertise, leveraging ICAO's roster of over 4,000 highly qualified professionals, with expertise covering each of the nineteen Annexes of the Chicago Convention. These experts are available to address the immediate or long-term needs of Member States.

3.2.3 Training, through the deployment of ICAO's training portfolio, comprised of over 350 competency-based training courses across 10 specialized aviation training areas. These include Aerodromes, Air Navigation Services, Air Transport, Aviation Law, Aviation Management, Environment, Flight Safety and Safety Management, Facilitation, Security, and Training Competency Development.

3.2.4 Procurement, providing turnkey solutions to procure software or hardware on behalf of Member States. These include the procurement of radio navigation facilities, aircraft, simulators, radars, as well as experts to produce studies and plans.

3.3 The appendix to this Information Paper provides examples of ICAO products and services associated with areas of the Universal Safety Oversight Audit Programme (USOAP) that may of interest to MIDANPIRG and RASG Members.

4. New ICAO Implementation Support Products

4.1 In order to address emerging implementation needs, ICAO continues to expand and diversify its catalogue of new products and services.

4.2 New Training Packages- ICAO's training courses support the implementation of SARPs and guidance material. In 2022, a total of 35 courses were developed or updated by ICAO. An additional 24 new courses were added in 2023. These courses are delivered using face-to-face, online, or virtual formats, and each supports the launch of new ICAO standards. Newly developed training packages address subjects such as Aviation Resilience, Risk Management Fundamentals, State Safety Programme, Monitoring Implementation of the National Aviation Safety Plan, Overview of Aerodrome Operational Environment

and Airport Pavement Strength Rating. More information in ICAO's portfolio of training packages can be found here: www.icao.int/training

4.3 New Implementation Packages (iPacks)- The Implementation Packages (iPacks) initiative continues to grow with the development of new titles. Each iPack combines relevant training, a dedicated subject matter expert, as well as the corresponding guidance material and tools. As of Q2 2023, six new iPacks have been developed on subject matter related to National Aviation Safety Planning (NASP) Performance, State Safety Programme (SSP), and Aerodrome Certification. A total of 16 iPacks titles are now available, while 27 iPacks are under development. More information can be found here: www.icao.int/iPack

4.4 New Implementation Support Programme (ISP)- The ISP is ICAO's newest line of products. Each is a multi-phased, longer-term, thematic implementation support programme aimed at providing a complete array of support activities for the implementation of relevant ICAO provisions. The first ISP, addressing the topic of building safety oversight capacity, is expected to be completed by Q4 of 2023. Additional ISP titles will be developed throughout the current triennium, further supporting ICAO's diversification efforts.

4.5 Civil Aviation Master Plans (CAMPs)- ICAO currently supports several States in developing or updating their CAMPs. The primary objective of this support is to establish a long-term, strategic framework for comprehensive and sustainable development of a State's civil aviation system. This will be accomplished in a manner consistent with the State's broader economic and social development objectives, as well as the United Nations' 2030 Sustainable Development Goals (SDGs). It also aims to create enhanced funding opportunities for the implementation of these plans.

Specifically, the CAMP support includes the development of a detailed roadmap for the growth and future development of various aspects of civil aviation, including airports, airlines, airspace management, manufacturing, air navigation services (ANS) provision, human resources, and oversight responsibilities related to safety, security, and economic regulation. This is done in accordance with ICAO's global and regional plans.

4.6 Data Products- To provide States with the latest transport data, the ICAO Civil Aviation Data Solutions (CADS) portal is continuously upgraded with new sets of statistics such as passenger traffic per city pair, annual traffic statistics and State traffic ranking. The portal is continuously updated with the aviation industry's needs in mind, integrating the entirety of data, business intelligence products, and a selection of curated ICAO reports and documents.

4.7 Regional Implementation Support Projects- Within this region, ICAO currently has projects addressing the following technical domains:

- Civil Aviation Master Plans, including State long term vision and Civil Aviation Policy;
- Economic Studies to assess on the national investment capacities in Civil Aviation infrastructures;
- National Airport Infrastructure Planning;
- National Air Navigation Infrastructure Planning;
- Airport Master Planning;
- Airport Consultancy Services (i.e., Project Management & Civil Works Surveillance, ORAT and support to start operations of new infrastructures);
- Procurement of ATM and CNS Systems, airport equipment, software, hardware, and other aviation related equipment;

- Services for the migration of AIS to AIM and improvement in the data quality management chain and implementation of most modern data exchange protocols;
- Consultancy services for the procurement of Traveller Documents (passport booklets, Identity Card, etc.);
- Procurement of e-Passport Systems and the most modern hardware and software to produce traveller documents; and
- Hiring of specialized subject matter consultants in all the civil aviation disciplines.

4.3 Resource Mobilization- To coordinate all Resource Mobilization (RM) efforts, ICAO has launched a Resource Mobilization Strategy. The RM function will secure quality resources to supplement the ICAO Business Plan and to support Member States. These resources will be mobilized from a diversified pool of donors and be used for: Unfunded activities of the ICAO Business Plan, Transformational Objective of the ICAO Business Plan, and Implementation support activities. ICAO has developed 3 prospectuses for each of the above potential areas, available to share upon request, towards which potential partners could choose to contribute.

5. Added-Value of Leveraging ICAO's Implementation Support Products and Services

5.1 The values that govern the work of the Bureau are transparency, accountability, quality, efficiency, partnership and respect for diversity. The added-value of ICAO's services can be summarised as follows:

- Ensuring strict neutrality, technical objectivity and full transparency, devoid of any commercial or national interest;
- Implementation with the highest level of technical expertise, in full compliance with ICAO SARPs;
- Aligned with the overall mandate and strategy of the Organization, including global plans and regional air navigation plans, and provides specific advice on compliance pertaining to ICAO Standards and Recommended Practices (SARPs), while respecting the national priorities of States; and
- Provision of flexibility in project and fund structure, offering States unique solutions to help address their priorities and issues.

6. ACTION BY THE MEETING

6.1 The Conference is invited to:

1. Note ICAO's enhanced portfolio of Capacity Development and Implementation Support Products and Services;
2. Consider use of the same, as appropriate, to address the implementation support needs of MIDANPIRG and RASG Members;
3. Provide feedback to ICAO regarding opportunities to expand its catalogue of implementation support products and services; and
4. Contact the Capacity Development and Implementation Bureau to explore how ICAO can help address current and future implementation challenges.

Appendix

*Examples of ICAO Products and Services, per audit area related to the
 Universal Safety Oversight Audit Programme (USOAP)*

Audit Area	Common Areas of Deficiency	Alignment with ICAO Products (Samples of Available Implementation Packages and Courses)
Primary Aviation Legislation and Civil Aviation Regulations (LEG)	Critical Elements (CE) 1, 2, and 5	<ol style="list-style-type: none"> 1. State Safety Program Implementation Package (iPack) 2. National Aviation Safety Program (development) iPack 3. National Aviation Safety Program (implementation) iPack 4. USOAP CMA Phase 2 - Aviation Legislation and Civil Aviation Organization
Civil Aviation Organization (ORG)	Critical Elements 3,4, and 5	<ol style="list-style-type: none"> 1. Managing Compliance with ICAO SARPs 2. National Aviation Safety Program (development) iPack 3. National Aviation Safety Program (implementation) iPack 4. Training Needs Assessment iPack 5. Competency Based Training iPack 6. Managing Aviation Training Intelligence 7. Validating Competency-based Training 8. Training Needs Analysis Fundamentals 9. Training Managers Course 10. Virtual Classroom Instruction
Personnel Licensing and Training (PEL)	Critical Elements 2-8	<ol style="list-style-type: none"> 1. Competency and Licensing of UAS Remote Pilots 2. USOAP CMA Phase 2 - Personnel Licensing and Training 3. ICAO Government Safety Inspector – Personnel Licensing 4. Oversight of Competency-based Training 5. Personnel Licensing System 6. ICAO English Language Proficiency Interlocutor/Rater Initial Training
Aircraft Operations (OPS)	Critical Elements 1-8	<ol style="list-style-type: none"> 1. Cargo Safety Program iPack 2. Oversight of Aircraft Leasing Operations 3. ICAO Government Safety Inspector Operations – Air Cargo Certification 4. ICAO Government Safety Inspector Operations – Air Operator Certification 5. Air Cargo Safety Management 6. USOAP CMA Phase 2 - Aircraft Operations including Dangerous Goods
Airworthiness of Aircraft (AIR)	Critical Elements 2-8	<ol style="list-style-type: none"> 1. ICAO Government Safety Inspector Airworthiness – Air Operator and Approved Maintenance Organization Certification 2. Aviation English for Aircraft Maintenance Technicians 3. Safety Management for Approved Maintenance Organizations under ICAO/EASA Rules 4. USOAP CMA Phase 2 - Airworthiness of Aircraft
Aircraft Accident and Incident Investigation (AIG)	Critical Elements 1-5, and 8	<ol style="list-style-type: none"> 1. Accident/Incident Data Reporting iPack 2. Emergency Response Tabletop Exercises Management 3. Aeronautical search and Rescue Operations 4. ATM Incident Investigation Techniques 5. Safety Information Protection 6. USOAP CMA Phase 2 - Aircraft Accident and Incident Investigation 7. Safety Occurrence Reporting for Practitioners 8. Service Provider Safety Investigation - Operational Incidents 9. Safety Management System Assessment and Monitoring

Air Navigation Services (ANS)	Critical Elements 1-8	<ol style="list-style-type: none"> 1. UAS Regulatory Framework iPack 2. NOTAM Improvement iPack 3. Aeronautical Information Quality Management 4. Performance-Based Navigation Airspace Design 5. Performance-Based Navigation Operations Approval 6. Air Navigation Services AIS Inspector 7. Air Navigation Services ATM Inspector 8. Aircraft Emergencies for Aerodrome Controller Refresher Course 9. ATC Competency Assessment 10. Handling Emergencies and Unexpected Events in Terminal and En-Route Airspace 11. Search Area Calculation for SAR Operation
Aerodromes and Ground Aids (AGA)	Critical Elements 1-8	<ol style="list-style-type: none"> 1. ACI-ICAO Aerodrome Certification iPack 2. Overview of Aerodrome Operational Management 3. ACI - ICAO Global Reporting Format for Airport Operators 4. ACI - ICAO Implementing Annex 14: Advanced Aerodrome Design and Operations 5. Airport Wildlife Management 6. Aerodrome Emergency Handling 7. Aerodrome Inspection 8. Aviation Risk Management and Business Continuity Management System 9. Airfield Pavement Markings 10. Human Factors for Airport Operators

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