**SAMPLE TEMPLATE**

**AIR NAVIGATION REPORT FORM (ANRF)**

(This template demonstrates how ANRF to be used.

The data inserted here refers to ASBU B0-05 as an example only)

**Regional and National planning for ASBU Modules**

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| **REGIONAL/NATIONAL PERFORMANCE OBJECTIVE – B0-05: Improved Flexibility and Efficiency in Descent Profiles (CDO)**  **Performance Improvement Area 4:**  **Efficient Flight Path – Through Trajectory-based Operations** | | | | | | | | | | |
| **ASBU B0-05: Impact on Main Key Performance Areas (KPA)** | | | | | | | | | | |
|  | **Access & Equity** | | **Capacity** | | **Efficiency** | | | **Environment** | | **Safety** |
| **Applicable** | N | | N | | Y | | | Y | | Y |
| **ASBU B0-05: Implementation Progress** | | | | | | | | | | |
| **Elements** | | | | | | **Implementation Status**  **(Ground and Air)** | | | | |
| 1. CDO | | | | | |  | | | | |
| 2. PBN STARs | | | | | |  | | | | |
| **ASBU B0-05: Implementation Roadblocks/Issues** | | | | | | | | | | |
| **Elements** | | **Implementation Area** | | | | | | | | |
| **Ground**  **system Implementation** | | **Avionics Implementation** | | | **Procedures Availability** | | **Operational**  **Approvals** | |
| 1. CDO | |  | |  | | |  | |  | |
| 2. PBN STARs | |  | |  | | |  | |  | |

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| **ASBU B0-05: Performance Monitoring and Measurement (Implementation)** | |
| **Elements** | **Performance Indicators/Supporting Metrics** |
| 1. CDO | Indicator: Percentage of international aerodromes/TMAs with CDO implemented  Supporting metric: Number of international aerodromes/TMAs with CDO implemented |
| 2. PBN STARs | Indicator: Percentage of international aerodromes/TMAs with PBN STARs implemented  Supporting metric: Number of international aerodromes/TMAs with PBN STARs implemented |

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| **ASBU B0-05: Performance Monitoring and Measurement (Benefits)** | |
| **Key Performance Areas** | **Performance Metrics** |
| Access & Equity | Not applicable |
| Capacity | Not applicable |
| Efficiency | Kilograms of fuel saved per flight |
| Environment | Kilograms of CO2  emissions reduced per flight (= KGs fuel saved per flight x 3.157) |
| Safety | Number of controlled flight into terrain (CFIT) incidents/accidents |

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**AIR NAVIGATION REPORT FORM**

**HOW TO USE - EXPLANATORY NOTES**

1. **Air Navigation Report Form (ANRF):** This form provides a standardized approach to implementation monitoring and performance measurement of Aviation System Block Upgrades (ASBU) Modules. The Planning and Implementation Regional Groups (PIRGs) and States could use this report format for their planning, implementation and monitoring framework for ASBU Modules. Also, other reporting formats that provide more details may be used but should contain as a minimum the elements described below. The Reporting and monitoring results will be analysed by ICAO and aviation partners and then utilized in developing the Annual Global Air Navigation Report. The Global Air Navigation Report conclusions will serve as the basis for future policy adjustments aiding safety practicality, affordability and global harmonization, amongst other concerns.
2. **Regional/National Performance objective:** In theASBU methodology, the performance objective will be the title of the ASBU module itself. Furthermore, indicate alongside corresponding Performance Improvement area (PIA). Consequently, for ASBU Block 0, a total of 18 ANRFs will need to be developed that reflects respective 18 Modules.
3. **Impact on Main Key Performance Areas:** Key to the achievement of a globally interoperable ATM system is a clear statement of the expectations/benefits to the ATM community. The expectations/benefits are referred to eleven Key Performance Areas (KPAs) and are interrelated and cannot be considered in isolation since all are necessary for the achievement of the objectives established for the system as a whole. It should be noted that while safety is the highest priority, the eleven KPAs shown below are in alphabetical order as they would appear in English. They are access/equity; capacity; cost effectiveness; efficiency; environment; flexibility; global interoperability; participation of ATM community; predictability; safety; and security. However, out of these eleven KPAs, for the present, only five have been selected for reporting through ANRF, which are Access & Equity, Capacity, Efficiency, Environment and Safety. The KPAs applicable to respective ASBU module are to be identified by marking Y (Yes) or N (No).
4. **Implementation Progress:** This section indicates status of progress in the implementation of different elements of the ASBU Module for both air and ground segments.
5. **Elements related to ASBU module:** Under this section list elements that are needed to implement the respective ASBU Module. Furthermore, should there be elements that are not reflected in the ASBU Module (example: In ASBU B0-80/Airport CDM, Aerodrome certification and data link applications D-VOLMET, D-ATIS, D-FIS are not included; Similarly in ASBU B0-30/AIM, note that WGS-84 and eTOD are not included) but at the same time if they are closely linked to the module, ANRF should specify those elements. As a part of guidance to PIRGs/States, the FASID (Volume II) of every Regional ANP will have the complete list of all 18 Modules of ASBU Block 0 along with corresponding elements, equipage required on the ground and in the air as well as metrics specific to both implementation and benefits.
6. **Implementation Status (Ground/Air):** Planned implementation date (moth/year) and the current status/responsibility for each element are to be reported in this section. Please provide as much details as possible and should cover both avionics and ground systems. If necessary, use additional pages.
7. **Implementation Roadblocks/Issues**: Any problems/issues that are foreseen for the implementation of elements of the Module are to be reported in this section. The purpose of the section is to identify in advance any issues that will delay the implementation and if so, corrective action is to be initiated by the concerned person/entity. The four areas, under which implementation issues, if any, for the ASBU Module to be identified, are as follows:

* Ground System Implementation:
* Avionics Implementation:
* Procedures Availability:
* Operational Approvals:

Should be there no issues to be resolved for the implementation of ASBU Module, indicate as “NIL”.

1. **Performance Monitoring and Measurement:** Performance monitoring and measurement is done through the collection of data for the supporting metrics. In other words, metrics are quantitative measure of system performance – how well the system is functioning. The metrics fulfil three functions. They form a basis for assessing and monitoring the provision of ATM services, they define what ATM services user value and they can provide common criteria for cost benefit analysis for air navigation systems development. The Metrics are of two types:
2. Implementation Indicators/supporting metrics: This indicator supported by the data collected for the metric reflects the status of implementation of elements of the Module. For example- Percentage of international aerodromes with CDO implemented. This indicator requires data for the metric “ number of international aerodromes with CDO”.
3. Benefit Metrics: This Metric allows to asses benefits accrued as a result of implementation of the module. The benefits or expectations, also known as Key Performance Areas (KPAs), are interrelated and cannot be considered in isolation since all are necessary for the achievement of the objectives established for the system as a whole. It should be noted that while safety is the highest priority, the eleven KPAs shown below are in alphabetical order as they would appear in English. They are access/equity; capacity; cost effectiveness; efficiency; environment; flexibility; global interoperability; participation of ATM community; predictability; safety; and security. However, out of these eleven KPAs, for the present, only five have been selected for reporting through ANRF, which are Access & Equity, Capacity, Efficiency, Environment and Safety. It is not necessary that every module contributes to all of the five KPAs. Consequently, a limited number of metrics per type of KPA, serving to measure the module(s)’ implementation benefits, without trying to apportion these benefits between module, have been identified at the end of this table. This approach would facilitate States in collecting data for the chosen metrics.

On the basis of examples of Performance Indicators/supporting Metrics detailed in this document, PIRGs/States to reflect under this section the appropriate metrics that represents the monitoring of respective ASBU Module both in terms of implementation as well as benefits to five KPAs.

The impact on KPAs could be extended to more than five KPAs mentioned above if maturity of the system allows and the process is available within the State to collect the data.

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