



*International Civil Aviation Organization*

**MIDANPIRG Meteorology Sub-Group  
Tenth Meeting (MET SG/10)**

*(Virtual Meeting, 17–19 May 2022)*

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**Agenda Item 4: MET Planning and Implementation issues – Performance Framework  
for MET implementation in the MID Region**

**ASBU THREAD AMET IMPLEMENTATION MONITORING:  
MID AIR NAVIGATION REPORT**

*(Presented by the Secretariat)*

**SUMMARY**

This paper provides an update on the ASBU monitoring and reporting in the MID Region (AMET), through the MID Region Air Navigation Report and the MID eANP Volume III.

Action by the meeting is at paragraph 3.

**REFERENCES**

- MIDANPIRG CONCLUSION 18/12: REVISED MID AIR NAVIGATION STRATEGY
- MIDANPIRG CONCLUSION 18/10: THE MID REGION AIR NAVIGATION REPORT – 2021
- MIDANPIRG CONCLUSION 9/5: WEB-BASED MID REGION AIR NAVIGATION REPORT (2021)
- MIDANPIRG CONCLUSION 9/6: WEB-BASED MID REGION AIR NAVIGATION REPORT (2022)

**1. INTRODUCTION**

1.1 The meeting may wish to recall that the MIDANPIRG/18 meeting endorsed the Revised MID Region Air Navigation Strategy (ICAO MID Doc 002) and its alignment with the 6<sup>th</sup> edition of the Global Air Navigation Plan (GANP).

1.2 The Web-based MID Region Air Navigation Report (2022) is available at: <https://www.icao.int/MID/Doc002>.

1.3 The meeting may wish to recall that the MIDANPIRG/18 reviewed and updated the MID eANP Volume III taking into consideration of the changes brought by the ICAO GANP 6<sup>th</sup> edition and the revised version of the MID Air Navigation Strategy (MID Doc 002).

- 1.4 The MID eANP Volume III is posted at:  
<https://www.icao.int/MID/Documents/eANP/MID%20eANP%20VOL%20III.pdf>.

## 2. DISCUSSION

### *Sixth edition of the MID Region Air Navigation Report (2021)*

2.1 The meeting may wish to recall that the MIDANPIRG/18 meeting agreed that the ICAO MID Office should start the development of the Sixth Edition of the MID Region Air Navigation Report (2021).

2.2 The MIDANPIRG/18 meeting urged States to provide the ICAO MID Office, with necessary data by 30 December 2021 for the development of the MID Region Air Navigation Report – 2021. The meeting concluded through:

**CONCLUSION 18/10: THE MID REGION AIR NAVIGATION REPORT -2021**

*That, States be urged to provide the ICAO MID Office, with relevant data necessary for the development of the MID Region Air Navigation Report – 2021, by 30 December 2021.*

2.3 For the development of the MID Region Air Navigation Report – 2021, States were reminded to provide the ICAO MID office with the level of implementation of the elements related to the AMET thread priority elements, by 30 December 2021, as per the updated method for estimating actual level of implementation (ref.: SL AN 1/7 – 21/215 dated 18 November 2021). Replies to this State letter were received by 9 States in the MID Region: Bahrain, Egypt, Iraq, Jordan, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

2.4 The meeting may wish to note that these inputs (amongst others e.g. SADIS Provider) were used as input to the Web-based MID Air Navigation Report (2021) that was endorsed through MIDANPIRG Conclusion 19/5 and the MET Part provided at **Appendix A** (note that the tabular part was input to the MID eANP Volume III (AMET Tables)).

2.5 The meeting may recall MIDANPIRG Conclusion 19/6 – Web-based MID Region Air Navigation Report (2022) that urged States to provide the ICAO MID Office with: i) relevant data necessary for the development of the MID Region Air Navigation Report (2022) (Status of ASBU Implementation), by 1 December 2022; and ii) the data necessary for the measurement of the KPIs (01, 02, 13 and 14) for the period June & July 2022, by 1 October 2022. The MID Air Navigation Report (2022) will be presented to the MIDANPIRG/20 for endorsement.

## 3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) review and update the MET elements of the Web-based MID Air Navigation Report (2021) and MID eANP Volume III (AMET Tables), at **Appendix A**; and
- b) urge States to provide the ICAO MID Office, with relevant data necessary for the development of the MID Region Air Navigation Report (2022), by **30 December 2022**.

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## APPENDIX A

## MID REGION ASBU Threads &amp; Elements (AMET B0) Monitoring Table

**Priority 1:** Elements that have the highest contribution to the improvement of air navigation safety, capacity and/or efficiency in the MID Region. These elements should be implemented where applicable and will be used for the purpose of regional air navigation monitoring and reporting.

**Priority 2:** Elements recommended for implementation based on identified operational needs and benefits.

**Priority 1 Thread:** Any thread with at least 1 priority 1 element.

| AMET      |                                              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |                         |
|-----------|----------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|
| Element   | Title                                        | Applicability | Performance Indicators/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Performance Indicators/ | Performance Indicators/ |
| AMET B0/1 | Meteorological observations products         | All states    | Indicator*: Regional average implementation status of B0/1 (Meteorological observations products).<br><br>Supporting Metrics: Number of States that provide the following Meteorological observations products, as required: <ol style="list-style-type: none"> <li>1. Automatic Weather Observation System (AWOS) information (including real-time exchange of wind and RVR data)</li> <li>2. Local reports (MET REPORT/SPECIAL)</li> <li>3. Aerodrome reports (METAR/SPECI)</li> <li>4. Lightning Information</li> <li>5. Ground-based weather radar information</li> <li>6. Meteorological satellite imagery</li> <li>7. Aircraft meteorological report (ie. ADS-B, AIREP, etc.)</li> <li>8. Vertical wind and temperature profiles</li> <li>9. Wind shear alerts</li> </ol> | 80%                     | Dec 2021                |
| AMET B0/2 | Meteorological forecast and warning products | All states    | Indicator*: Regional average implementation status of B0/2 (Meteorological forecasts and warning products)<br><br>Supporting Metrics:<br>Number of States that provides the following Meteorological                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 90%                     | Dec 2021                |

APPENDIX A

|           |                                                       |            |                                                                                                                                                                                                                                                                                                                                                                                          |     |          |
|-----------|-------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|
|           |                                                       |            | <p>forecast and warning products, as required:</p> <ol style="list-style-type: none"> <li>1. World Area Forecast System (WAFS) gridded products</li> <li>2. Significant Weather (SIGWX)</li> <li>3. Aerodrome Forecast (TAF)</li> <li>4. Trend Forecast (TREND)</li> <li>5. Take-off Forecast</li> <li>6. SIGMET</li> <li>7. Aerodrome Warning</li> <li>8. Wind Shear Warning</li> </ol> |     |          |
| AMET B0/3 | Climatological and historical meteorological products | All states | <p>Indicator: % of States that provide Climatological and historical meteorological products, as required.</p> <p>Supporting Metric: Number of States that provide Climatological and historical meteorological products, as required</p>                                                                                                                                                | 85% | Dec 2021 |
| AMET B0/4 | Dissemination of meteorological products              | All states | <p>Indicator: % of States disseminating Meteorological products using a variety of formats and means (TAC, Gridded, Graphical, BUFR code, IWXXM)</p> <p>Supporting Metric: Number of States disseminating Meteorological products using a variety of formats and means (TAC, Gridded, Graphical, BUFR code, IWXXM)</p>                                                                   | 85% | Dec 2021 |

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AMET Implementation Level = 55 %

B0/1

| State         | AWOS    | Local Report | Aerodrome report | Lighting info | Ground based weather radar info | MET SAT imagery | A/C met report | Vertical wind & Temp profile | Wind shear alert | Average |
|---------------|---------|--------------|------------------|---------------|---------------------------------|-----------------|----------------|------------------------------|------------------|---------|
| Bahrain       | Y       | Y            | Y                | Y             | Y                               | Y               | Y              | Y                            | Y                | 100%    |
| Egypt         | Y       | Y            | Y                | Y             | Y                               | Y               | Y              | Y                            | Y                | 100%    |
| Iran          | No Info | No Info      | No Info          | No Info       | No Info                         | No Info         | No Info        | No Info                      | No Info          | No Info |
| Iraq          | N       | Y            | Y                | Y             | N                               | N               | Y              | N                            | N                | 44%     |
| Jordan        | Y       | Y            | Y                | Y             | Y                               | Y               | Y              | Y                            | Y                | 100%    |
| Kuwait        | Y       | Y            | Y                | Y             | Y                               | Y               | Y              | Y                            | Y                | 100%    |
| Lebanon       | No Info | No Info      | No Info          | No Info       | No Info                         | No Info         | No Info        | No Info                      | No Info          | No Info |
| Libya         | No Info | No Info      | No Info          | No Info       | No Info                         | No Info         | No Info        | No Info                      | No Info          | No Info |
| Oman          | Y       | Y            | Y                | Y             | Y                               | Y               | Y              | Y                            | Y                | 100%    |
| Qatar         | Y       | Y            | Y                | No            | Y                               | Y               | Y              | Y                            | Y                | 89%     |
| Saudi Arabia  | Y       | Y            | Y                | Y             | Y                               | Y               | Y              | Y                            | 0.25Y            | 92%     |
| Sudan         | No Info | No Info      | No Info          | No Info       | No Info                         | No Info         | No Info        | No Info                      | No Info          | No Info |
| Syria         | No Info | No Info      | No Info          | No Info       | No Info                         | No Info         | No Info        | No Info                      | No Info          | No Info |
| UAE           | Y       | Y            | Y                | Y             | Y                               | Y               | N              | Y                            | N                | 78%     |
| Yemen         | No Info | No Info      | No Info          | No Info       | No Info                         | No Info         | No Info        | No Info                      | No Info          | No Info |
| Total average | 53%     | 60%          | 60%              | 53%           | 53%                             | 53%             | 53%            | 53%                          | 42%              | 54%     |

## APPENDIX A

A-4

B0/2

| State         | WAFS    | SIGWX   | TAF | Trend   | Take-off forecast | SIGMET | AERODROME WARNING | Wind shear warning | Average |
|---------------|---------|---------|-----|---------|-------------------|--------|-------------------|--------------------|---------|
| Bahrain       | Y       | Y       | Y   | Y       | Y                 | Y      | Y                 | Y                  | 100%    |
| Egypt         | Y       | Y       | Y   | Y       | Y                 | Y      | Y                 | Y                  | 100%    |
| Iran          | No Info | No Info | Y   | No Info | No Info           | Y      | No Info           | No Info            | 25%     |
| Iraq          | N       | Y       | Y   | Y       | N                 | Y      | Y                 | N                  | 63%     |
| Jordan        | N       | Y       | Y   | Y       | Y                 | Y      | Y                 | Y                  | 88%     |
| Kuwait        | N       | N       | Y   | Y       | Y                 | Y      | N                 | Y                  | 63%     |
| Lebanon       | No Info | No Info | Y   | No Info | No Info           | Y      | No Info           | No Info            | 25%     |
| Libya         | Y       | No Info | N   | N       | No Info           | N      | No Info           | No Info            | 13%     |
| Oman          | Y       | Y       | Y   | Y       | Y                 | Y      | Y                 | Y                  | 100%    |
| Qatar         | Y       | Y       | Y   | Y       | Y                 | Y      | Y                 | Y                  | 100%    |
| Saudi Arabia  | Y       | Y       | Y   | Y       | Y                 | Y      | Y                 | 0.25Y              | 91%     |
| Sudan         | No Info | No Info | N   | N       | No Info           | N      | No Info           | No Info            | 0       |
| Syria         | No Info | No Info | N   | N       | No Info           | N      | No Info           | No Info            | 0       |
| UAE           | Y       | Y       | Y   | Y       | Y                 | Y      | Y                 | Y                  | 100%    |
| Yemen         | No Info | No Info | N   | N       | No Info           | N      | No Info           | No Info            | 0       |
| Total average | 47%     | 53%     | 73% | 60%     | 53%               | 73%    | 53%               | 48%                | 58%     |

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B0/3 &amp; B0/4

| State        | B0/3    | B0/4  | Average |
|--------------|---------|-------|---------|
| Bahrain      | Y       | Y     | 100%    |
| Egypt        | Y       | 0.5Y  | 75%     |
| Iran         | No info | 0.5Y  | 25%     |
| Iraq         | No info | N     | 0       |
| Jordan       | Y       | Y     | 100%    |
| Kuwait       | Y       | 0.5Y  | 75%     |
| Lebanon      | No info | 0.5Y  | 25%     |
| Libya        | No info | N     | 0       |
| Oman         | Y       | Y     | 100%    |
| Qatar        | Y       | Y     | 100%    |
| Saudi Arabia | Y       | Y     | 100%    |
| Sudan        | No info | N     | 0       |
| Syria        | No info | N     | 0       |
| UAE          | Y       | Y     | 100%    |
| Yemen        | No info | N     | 0       |
| average      | 53%     | 53.0% | 53%     |

|                      | Bahrain | Egypt       | Iran        | Iraq        | Jordan      | Kuwait      | Lebanon     | Libya  | Oman  | Qatar       | Saudi Arabia | Sudan | Syria | UAE         | Yemen |
|----------------------|---------|-------------|-------------|-------------|-------------|-------------|-------------|--------|-------|-------------|--------------|-------|-------|-------------|-------|
| <b>B0/1</b>          | Green   | Green       | Grey        | Light Green | Green       | Green       | Grey        | Grey   | Green | Light Green | Green        | Grey  | Grey  | Light Green | Grey  |
| <b>B0/2</b>          | Green   | Green       | Yellow      | Light Green | Light Green | Light Green | Yellow      | Yellow | Green | Green       | Light Green  | Red   | Red   | Green       | Red   |
| <b>B0/3</b>          | Green   | Green       | Grey        | Grey        | Green       | Green       | Grey        | Grey   | Green | Green       | Green        | Grey  | Grey  | Green       | Grey  |
| <b>B0/4</b>          | Green   | Light Green | Light Green | Red         | Green       | Light Green | Light Green | Red    | Green | Green       | Green        | Red   | Red   | Green       | Red   |
| <b>Average Impl.</b> | Green   | Light Green | Yellow      | Yellow      | Light Green | Light Green | Yellow      | Yellow | Green | Light Green | Light Green  | Red   | Red   | Light Green | Red   |

**Average Regional Implementation is 55%**