



International Civil Aviation Organization

**MIDANPIRG Meteorology Sub-Group  
Thirteenth Meeting (MET SG/13)**

**(Cairo, Egypt, 16 - 17 December 2025)**

---

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

**IWXXM-IMPLEMENTATION AND STATISTICS AND TRANSLATION AGREEMENTS**

*(Presented by Secretariat on behalf of DMG – Austria)*

**Summary**

This paper summarizes the status of the IWXXM & AMHS-implementation within the EUR-region. It also provides information about the current IWXXM-data exchange with MID Region. Furthermore, this paper informs about IWXXM-statistics that have been produced, which provide some basic insight about the IWXXM-data in general.

Action by the meeting is at paragraph 6.

**References**

- METG35 Report
- DMG 46 Report

**1. INTRODUCTION**

1.1. Since November 2020 (according to ANNEX 3, Amendment 78) all OPMET-data shall be provided in IWXXM-format in parallel to the produced TAC-data. ICAO office Paris developed, together with the DMG a survey which was sent to all EUR/NAT States in 2019 in order to identify the current status of the IWXXM as well as AMHS implementation. Asking also about AMHS is necessary, because IWXXM-data can't be exchanged via AFTN but only via AMHS as FTBP (File Transfer Body Part).

1.2. During several METG meetings, working papers were presented providing information on the current IWXXM/AMHS implementation within the EUR region. That paper was based on a survey, which had been sent out several times to States, enabling the DMG to have an overview of the current implementation status. The DMG agreed that such a survey is not needed anymore but that instead the ROCs are coordinating directly with the NOCs in their AoR to get up-to-date information. This paper summarizes the current, known status of the IWXXM implementation within the ICAO EUR/NAT region and provides information about the status in other ICAO regions.

1.3. METG agreed and confirmed already last year that the ROCs will continue the translation service for as long as needed but also stressed that this service was not planned as being of infinite nature. States are urged to continue their efforts to implement IWXXM production nationally. States that are not in a position to do so will continue to be put on the list of air navigation deficiencies in the EUR/NAT Region.

1.4. This survey was sent a second time in 2020 and after that the DMG, respectively the ROCs, coordinated directly with States (NOCs and COM-centers) to have the latest status information.

1.5. The following questions were included in the mentioned surveys:

- Does the COM-Centre support extended AMHS?
- Does the NOC support extended AMHS?
- Is production of METAR/SPECI in IWXXM supported?
- Is the IWXXM-data operationally available
- Which IWXXM-Version is or will be available
- Support to produce TAF in IWXXM
- Is the IWXXM-data operationally available
- Which IWXXM-Version is or will be available
- Support to produce SIGMET in IWXXM
- Is the IWXXM-data operationally available
- Which IWXXM-Version is or will be available
- Support to produce Volcanic Ash Advisories in IWXXM
- Is the IWXXM-data operationally available
- Which IWXXM-Version is or will be available
- Is the IWXXM-data generated at source?
- Do you plan to create national IWXXM-extensions?
- Is IWXXM received or planned to be received?
- Additional explanatory information by state

## **2. CURRENT IMPLEMENTATION STATUS**

### **2.1. Technical Implementation**

2.1.1. Based on the latest information available about the support of AMHS by COM-centres as well as the NOCs, it can be said that 16 out of 52 EUR/NAT States are not or only partly fulfilling this requirement. Worth mentioning is that several States also reported that the system upgrade is ongoing and that they will be capable within the next months.

2.1.2. For some States we can observe a situation that both, the COM-centre as well as the NOC, can use AMHS but do not have a dedicated AMHS-link in place. Such a situation will make it impossible for NOCs to send any IWXXM-data via the ICAO AFS, even though they might be capable to produce IWXXM-data.

2.1.3. Looking at the current ICAO EUR COM-Chart (see Attachment A), there are already a big number of COM-centres supporting AMHS. When writing this paper, some States only have AFTN-capabilities, some of them with very low line speeds. This could be seen as a risk, that the need to rely on translation services will persist for a longer time.

2.1.4. A similar situation can be spotted for the AFS-connections in the MID-region (see Attachment B).

## 2.2. IWXXM-Implementation & Translation Agreements

2.2.1. The following table is reflecting the latest information on translation agreements which are still in force. This information can also be found on the ICAO EUR/NAT office website.

2.2.2. Some of the agreements are already past the agreed date. The States are asked to update/extend the translation agreement in coordination with the responsible ROCs and inform ICAO office Paris accordingly.

State	ROC	Start Date	Stop Date
Algeria	Toulouse	7 Oct 2021	13 Oct 2025
Armenia	Moscow	31 Dec 2021	31 Dec 2025
Azerbaijan	Vienna	10 Sep 2020	04 Nov 2025
Belarus	Moscow	1 Jan 2023	31 Dec 2025
Hungary	Vienna	5 Nov 2020	31 Dec 2025
Iceland	London	4 Nov 2020	04 Nov 2025
Ireland	London	5 Nov 2020	05 Nov 2025
Kazakhstan	Moscow	1 Jan 2021	31 Dec 2023
Kyrgyzstan	Moscow	1 Jan 2021	31 Dec 2025
Latvia	London	17 Jun 2021	31 Dec 2025
Lithuania	London	29 Mar 2018	28 Nov 2025
Netherlands	London	4 Nov 2021	Q4 2025
North Macedonia	Vienna	8 Oct 2020	31 Dec 2026
Tajikistan	Moscow	1 Jan 2023	31 Dec 2025
Tunisia	Toulouse	15 Sep 2020	30 Sep 2021
Türkiye	Vienna	5 Nov 2020	03 Nov 2025
Turkmenistan	Moscow	24 Feb 2022	01 Aug 2026
Ukraine	Vienna	5 Nov 2020	27 Nov 2025
Uzbekistan	Moscow	1 Jan 2023	31 Dec 2025

2.3. States making use of the translation agreements are once again reminded that they will be continued to be included on the list of air navigation deficiencies.

2.4. Some additional, general information

2.4.1. Currently a lot of States not only work on the implementation of AMHS, AMHS-links between COM-Centers and NOCs or the implementation of a national translation functionality, but also on the native generation of IWXXM-data. This is the main goal for the whole transition from TAC to IWXXM.

2.4.2. In that regard it is worth mentioning that, according to the current plan by ICAO HQ Montreal, the TAC-format will be removed as legit format to be used for OPMET data from ANNEX 3 in 2030. This will mean that only IWXXM-formatted OPMET data is to be exchanged and used.

2.4.3. In addition, SWIM (System Wide Information Management), which is also planned to be implemented by ICAO on a global scale, will also only support IWXXM-data. Currently IWXXM-schemas exist only for the current, legacy products (METAR/SPECI, TAF, SIGMET, Advisories,...) but discussions are taking place to define requirements for enhanced SWIM-services, which shall be able to provide more information compared to the legacy products, in a higher time-resolution and other operational functionalities needed by users.

## 3. INFORMATION FROM MID REGION

3.1.1. Since 24. January 2023 the AMHS-link between Nicosia and Jeddah is operational. This enabled the IROGs Jeddah and Vienna to exchange IWXXM-data between the EUR and MID region. After some testing of the new IWXXM-data had been performed in March, the new bulletin headers were announced via the METNO procedure. The routing within the EUR-region was officially activated on AIRAC date 4. April 2023.

3.1.2. Currently the IWXXM-data flow is analysed, and coordination takes place between Jeddah and Vienna to optimize the exchange of IWXXM-data. For example, it has been identified, based on the results of the IWXXM-monitoring, that IROG Vienna receives some of the IWXXM-messages not only from one translation centre, but also from others and in different IWXXM-versions. This has been reported to IROG Jeddah for further investigation.

3.1.3. IROG Jeddah was also contacted to get feedback on the idea, discussed by DMG, to have single station IWXXM-aggregations.

3.1.4. Worth mentioning is that in the MID-Region there is no dedicated working group taking care of the exchange and management of IWXXM-data. Also, there is currently only IWXXM-data exchange with the ICAO EUR region and not with any other ICAO-region.

**4. IWXXM-STATISTICS**

4.1. Besides the DMG-Monitoring exercise (1.-14. February 2025) ROC Vienna did an additional IWXXM monitoring from 10.-16. June 2025 to also capture the newly available IWXXM-data from the AFI-region. The monitored data was used to develop statistics useful for DMG-tasks as well as for interested users.

4.2. Since the first versions of statistics, presented to DMG and METG in 2024, some fine-tuning took place to correct the first presented figures which were doubtful. The current results can be found on the DMG-website via the following URL: <https://eur-rodex.austrocontrol.at/IWXXM-Monitoring.php>

4.3. There are still differences in the provided data, that might look strange to users. For example, right in the beginning, just above the different options for statistics to be retrieved, general figures on received IWXXM-data can be found, stating that 1513 METARs are available in IWXXM. It is worth mentioning that this query also includes “NIL” reports.

LA (METAR)	LP (SPECI)	LC (Short TAF)	LT (Long TAF)	LS (SIGMET)	LV (VA SIGMET)	LY (TC SIGMET)	LW (AIRMET)	LU (VA Advisory)	LK (TC Advisory)	LN (SWX Advisory)
1513	334	384	830	115	49	9	34	6	2	4

4.4. If a user then looks at the statistics for the IWXXM-version used, suddenly there is the number of 1673 METARs, instead of 1513, which are available in IWXXM. Although this might be confusing, the reason is easy to be explained.

**Results 2024**

**Results 202**

Monitored IWXXM-Versions					
	All	3.0	2021-2	2023-1	2025-2
LA (METAR)	1414	964	434	16	0
LP (SPECI)	91	55	29	7	0
LC (Short-TAF)	375	315	60	0	0
LT (Long-TAF)	755	548	191	16	0
LS (SIGMET)	98	76	21	1	0
LV (VA SIGMET)	34	32	1	1	0
LY (TC SIGMET)	6	6	0	0	0
LW (AIRMET)	22	10	12	0	0
LU (VA Advisory)	0	0	0	0	0
LK (TC Advisory)	0	0	0	0	0
LN (SWX Advisory)	0	0	0	0	0

Monitored IWXXM-Versions					
	All	3.0	2021-2	2023-1	2025-2
LA (METAR)	1673	809	719	145	0
LP (SPECI)	338	152	168	18	0
LC (Short-TAF)	422	251	133	38	0
LT (Long-TAF)	904	495	337	72	0
LS (SIGMET)	128	83	35	10	0
LV (VA SIGMET)	54	43	9	2	0
LY (TC SIGMET)	9	9	0	0	0
LW (AIRMET)	32	12	19	1	0
LU (VA Advisory)	3	2	1	0	0
LK (TC Advisory)	2	2	0	0	0
LN (SWX Advisory)	3	2	1	0	0

4.5. For the statistics on the IWXXM-Versions the bulletin header has been used as part of the query, whereas the other query only involves the Location Indicators.

4.6. This deviation therefore is an indication that some reports are contained in more than one bulletin or that there are two translations, using different IWXXM-versions, are performed. Both cases are not ideal and have to be further investigated.

4.7. Some cases have already been analysed. For example, different IWXXM versions were captured for reports from Switzerland. The reason is easy to explain as the monitoring captured exactly the time frame when Switzerland moved from 3.0 to 2023-1.

4.8. Another example is for the MID-region. There it can be found that some bulletins are translated by more than one centre using different IWXXM versions. Information was already sent to IROG Jeddah, asking for further investigation and action.

4.9. Besides the statistics on the used IWXXM versions, the following are made available.

4.9.1. **Information on the number of translated messages.** As can be seen from the numbers, there are already some messages that are produced at the source. But the number of translated TAC-messages is still very high.

**Results 2024**

Translated IWXXM-Reports			
	All	Translated	At-Source
LA (METAR)	1345	1181	164
LP (SPECI)	92	86	6
LC (Short-TAF)	357	300	57
LT (Long-TAF)	708	613	95
LS (SIGMET)	96	72	24
LV (VA SIGMET)	34	28	6
LY (TC SIGMET)	6	5	1
LW (AIRMET)	22	19	3
LU (VA Advisory)	0	0	0
LK (TC Advisory)	0	0	0
LN (SWX Advisory)	0	0	0

**Results 2025**

Translated IWXXM-Reports			
	All	Translated	At-Source
LA (METAR)	1471	1306	165
LP (SPECI)	337	330	7
LC (Short-TAF)	371	308	63
LT (Long-TAF)	795	690	105
LS (SIGMET)	109	79	30
LV (VA SIGMET)	48	35	13
LY (TC SIGMET)	9	5	4
LW (AIRMET)	29	24	5
LU (VA Advisory)	3	0	3
LK (TC Advisory)	2	1	1
LN (SWX Advisory)	2	0	2

4.9.2. **Information on the number of failed translations.** The problem with TAC data is, that there are sometimes typos or elements included which do not adhere to ICAO-regulations. This leads to situations, where the software is not able to translate the TAC version into IWXXM. Below table shows the number of reports which were not translatable. There was no percentage calculated for 2024, but this has been changed for this year's monitoring.

**Results 2024**

**Results 2025**

Translation of Reports Failed			Translation of Reports Failed			
	All	Failed		All	Failed	Percentage
LA (METAR)	242508	5876	LA (METAR)	1679684	10191	0.61%
LP (SPECI)	1245	0	LP (SPECI)	29062	55	0.19%
LC (Short-TAF)	9071	8	LC (Short-TAF)	66248	116	0.18%
LT (Long-TAF)	14518	31	LT (Long-TAF)	112643	328	0.29%
LS (SIGMET)	5946	89	LS (SIGMET)	20015	395	1.97%
LV (VA SIGMET)	102	16	LV (VA SIGMET)	420	39	9.29%
LY (TC SIGMET)	13	6	LY (TC SIGMET)	30	12	40.00%
LW (AIRMET)	2646	32	LW (AIRMET)	7584	146	1.93%
LU (VA Advisory)	0	0	LU (VA Advisory)	369	0	0.00%
LK (TC Advisory)	0	0	LK (TC Advisory)	116	14	12.07%
LN (SWX Advisory)	0	0	LN (SWX Advisory)	70	0	0.00%

4.9.3. **Information on the global availability.** Below tables are providing a good overview on the global availability of IWXXM-data, both in numbers and percentages.

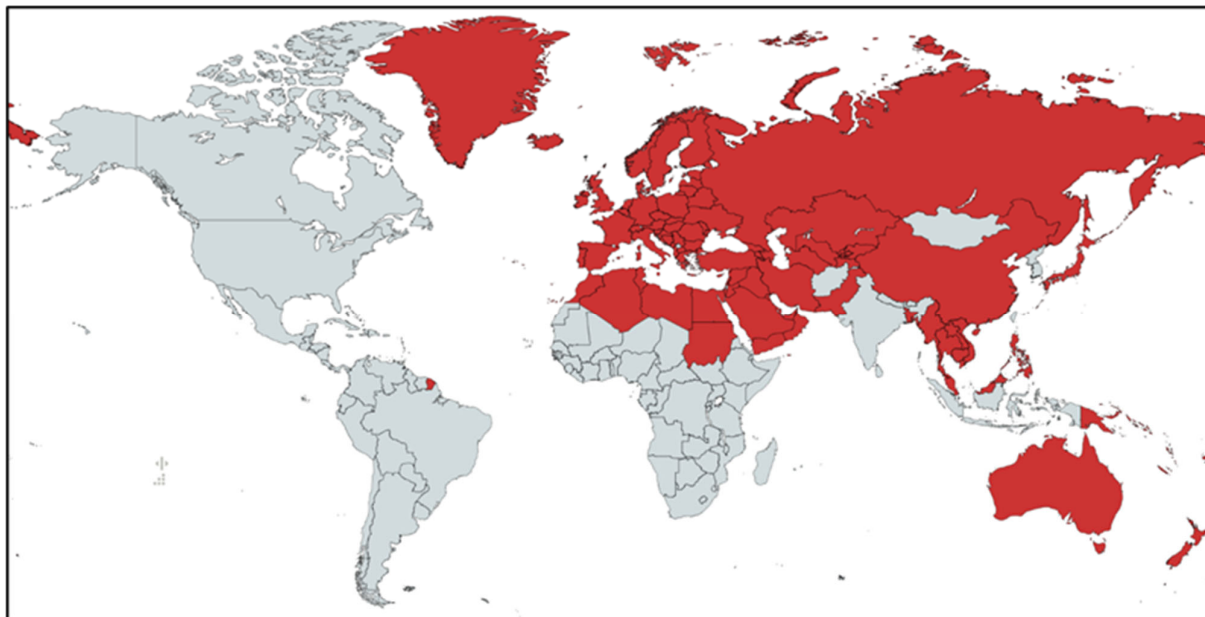
**Results 2024**

Availability of IWXXM-Data									Availability of IWXXM-Data (Percentage)										
Region	LA			LC			LT			Region	LA			LC			LT		
	ALL	RX		ALL	RX		ALL	RX			ALL	RX		ALL	RX		ALL	RX	
		AFS	SADIS		AFS	SADIS		AFS	SADIS			AFS	SADIS		AFS	SADIS		AFS	SADIS
AFI	74	1	0	2	0	0	69	0	0	AFI	74	1.35%	0%	2	0%	0%	69	0%	0%
ASI	207	97	0	0	0	0	202	88	0	ASI	207	46.86%	0%	0	0%	0%	202	43.56%	0%
CAR	133	2	0	0	0	0	129	1	0	CAR	133	1.5%	0%	0	0%	0%	129	0.78%	0%
EUR	671	606	0	232	182	0	431	369	0	EUR	671	90.31%	0%	232	78.45%	0%	431	85.61%	0%
MID	60	46	0	0	0	0	54	16	0	MID	60	76.67%	0%	0	0%	0%	54	29.63%	0%
NAM	623	0	0	1	0	0	608	0	0	NAM	623	0%	0%	1	0%	0%	608	0%	0%
NAT	7	7	0	0	0	0	7	7	0	NAT	7	100%	0%	0	0%	0%	7	100%	0%
PAC	25	12	0	0	0	0	25	11	0	PAC	25	48%	0%	0	0%	0%	25	44%	0%
SAM	86	0	0	0	0	0	86	0	0	SAM	86	0%	0%	0	0%	0%	86	0%	0%
ALL	1886	771	0	235	182	0	1611	492	0	ALL	1886	40.88%	0%	235	77.45%	0%	1611	30.54%	0%

**Results 2025**

Availability of IWXXM-Data									Availability of IWXXM-Data (Percentage)										
Region	LA			LC			LT			Region	LA			LC			LT		
	ALL	RX		ALL	RX		ALL	RX			ALL	RX		ALL	RX		ALL	RX	
		AFS	SADIS		AFS	SADIS		AFS	SADIS			AFS	SADIS		AFS	SADIS		AFS	SADIS
AFI	74	12	0	2	0	0	69	2	0	AFI	74	16.22%	0%	2	0%	0%	69	2.9%	0%
ASI	207	129	0	0	0	0	202	123	0	ASI	207	62.32%	0%	0	0%	0%	202	60.89%	0%
CAR	133	3	0	0	0	0	129	1	0	CAR	133	2.26%	0%	0	0%	0%	129	0.78%	0%
EUR	671	627	0	232	200	0	431	395	0	EUR	671	93.44%	0%	232	86.21%	0%	431	91.65%	0%
MID	60	46	0	0	0	0	54	18	0	MID	60	76.67%	0%	0	0%	0%	54	33.33%	0%
NAM	623	0	0	1	0	0	608	0	0	NAM	623	0%	0%	1	0%	0%	608	0%	0%
NAT	7	7	0	0	0	0	7	7	0	NAT	7	100%	0%	0	0%	0%	7	100%	0%
PAC	25	13	0	0	0	0	25	12	0	PAC	25	52%	0%	0	0%	0%	25	48%	0%
SAM	86	0	0	0	0	0	86	0	0	SAM	86	0%	0%	0	0%	0%	86	0%	0%
ALL	1886	837	0	235	200	0	1611	558	0	ALL	1886	44.38%	0%	235	85.11%	0%	1611	34.64%	0%

4.9.4. Finally, a graphical presentation about the global availability of IWXXM-data, monitored on SADIS.



4.9.5. Given the importance of maintaining an accurate and up-to-date regional picture of IWXXM implementation and readiness in the MID Region, particularly regarding the ability of States to (i) provide IWXXM data internationally via the AMHS network and (ii) provide METAR/SPECI, TAF and SIGMET in IWXXM format (including, where not yet implemented, the planned dates for achieving such capability), the following draft conclusion is proposed:

***DRAFT CONCLUSION 13/2: MID REGION IWXXM IMPLEMENTATION STATUS***

*That, ICAO MID Office circulate a survey to collect up-to-date information from MID States (with particular attention to States continuing to use IWXXM translation services provided by ROCs) on the national status and planned implementation dates for: (a) providing IWXXM data internationally via the AMHS network; (b) providing METAR/SPECI in IWXXM; (c) providing TAF in IWXXM; and (d) providing SIGMET in IWXXM; and to consolidate the results and report updates to MET SG and MIDANPIRG to support regional planning and identification of assistance needs.*

**5. IWXXM EXTENSIONS ON THE DMG-WEBSITE**

5.1. The MET-Panel WG MIE (Meteorological Information Exchange) asked DMG to host an IWXXM global extension repository on the DMG-website.

5.2. Austro Control kindly accepted to host the page and built a mock-up which had been presented during April MIE virtual meeting and was approved by the group. At DMG/45 the new webpage was presented and is since then officially available via the following link:

<https://eur-rodex.austrocontrol.at/IWXXM-ext.php>

5.3. The next step by MIE aims to update chapter 3.1.2 (Variances to IWXXM) of the “IWXXM guidelines” to request states to provide information on their extensions. The following proposal is planned to be discussed during next MIE meeting in September:

*[...] The use of extensions within the IWXXM is discouraged and should only be utilised where absolutely necessary. However, States are requested to provide information on their national extensions to ICAO Secretary in order to maintain a global repository. The relevance decision to include the extension in IWXXM core schemas will be examined by Working Group on Meteorological Requirements and Development (WG-MRAD). The following mandatory information have to be*

*provided: Name, version and description of content of the extension, related IWXXM-schema and version. Additionally, a link to a technical webpage of the extension is strongly recommended.*

**6. ACTION BY THE MEETING**

6.1. The Meeting is invited to:

- a) note and discuss the content of this paper; and
- b) endorse the draft Conclusion at paragraph 4.9.5

- END -

