

GBON Webinar

October 2022

GBON Compliance Monitoring

(Tim Oakley)

WEATHER CLIMATE WATER
TEMPS CLIMAT EAU



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World Meteorological Organization
Organisation météorologique mondiale

1 April 2022

GBON Requirements (Regulations)

	<i>HR</i>	<i>VR</i>	<i>Obs cycle</i>	<i>Variables</i>	<i>Other requirements</i>
<i>Surface land stations</i>	200km 100km	n/a	1h	SLP, T, U, Wind, precip, snow depth	Exchanged in real time through WIS2
<i>Upper air stations operated from land</i>	500km 200km	100m	2/24h	T, U, wind	Up to 30 hPa, exchanged in real time through WIS-2
<i>Subset of upper air stations</i>	1000km	100m	24h	T, U, wind	Up to 10hPa, Exchanged in real time through WIS2
<i>Surface marine stations in EEZs</i>	500km	n/a	1h	SLP, SST	Exchanged in real time through WIS2
<i>Upper air stations operated in EEZs</i>	1000km	100m	2/24h	T, U, wind	Up to 30 hPa, exchanged in real time through WIS2
<i>Aircraft data</i>	100km at flight level	300m for profiles	1h	T, U, wind	Data exchange per licensing agreement
<i>Remote sensing profiler observations</i>	Where available	100m	1h	T, U, wind	n/a

Table 1: Summary of GBON requirements for different types of observing stations, 'shall' provisions in bold type.



GBON Compliance (Governance)

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World Meteorological Organization
**COMMISSION FOR OBSERVATION,
INFRASTRUCTURE AND INFORMATION SYSTEMS**
Task Team on GBON Implementation

TT-GBON
Deliverable 2.2
V5.2, 03.VI.2022
APPROVED

TT-GBON Operating Plan

Deliverable 2.2 – Definition of GBON compliance

Initial GBON station compliance assessment

Note: At TT-GBON-3 (03/05/2022) it was agreed that for the initial phase of GBON at subset of the compliance criteria in the above section would be used to assess station compliance.



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GBON Compliance (Station) - 1

Assessment S1 (GBON affiliation)

To enable compliance assessment a GBON station must be registered in OSCAR/Surface and include the network affiliation to GBON. If any GBON station does not meet this requirement, the station will be assessed as non-compliant.



GBON Compliance (Station) -2

Assessment S2 (GBON Surface-Land Station performance)

Monthly Availability (%) (Reported/Expected)	GBON Compliance
No. of received pressure reports ¹² / (Days per month * 24 ¹³)	≥ 80%

Assessment S3 (GBON UpperAir-Land Station performance)

Monthly Availability (%) (Reported/Expected)	GBON Compliance
No. of received radiosonde profile reports (to 30hPa) ¹⁴ / (Days per month * 2 ¹⁵)	≥ 80%

Whilst the above assessments are undertaken and recorded on a monthly basis, it is recommended that Member countries should review these assessments on a quarterly basis and a GBON assessment report should be produced annually.

¹² Monthly aggregation of observed variables from SYNOP reports from WDQMS, received by at least 2 of the NWP centres monitored by WDQMS

¹³ If a station is manually operated but is not operational 24 hours, this number can be reduced to the operational hours (hourly reporting i.e. 0800 -1700 = 10 reports) as recorded in OSCAR/Surface. This needs to be registered as an exception to GBON regulations

¹⁴ Monthly aggregation of observed variables from TEMP reports from WDQMS, received by at least 2 of the NWP centres monitored by WDQMS

¹⁵ If a radiosonde station is only able to undertake 1 sounding per day, this number can be reduced to the scheduled as recorded in OSCAR/Surface. This needs to be registered as an exception to GBON regulations



GBON Compliance (Country)

It is recommended that the monthly assessments C1-C3 are recorded against each Member country on a quarterly basis.

The monthly country compliance assessment should be as follows:

Assessment C1: Member country nominated GBON stations (Agreed initial seeding) are registered in OSCAR/Surface and are affiliated to GBON.

Compliant 100% Non-compliant < 100%

Assessment C2: Compliant if number of Surface-Land GBON compliant stations (S2 above) is greater than, or equal to, required number of Surface-Land GBON stations from GBON global gap analysis.

Assessment C3: Compliant if number of UpperAir-Land GBON compliant stations (S3 above) is greater than, or equal to, required number of UpperAir-Land GBON stations from GBON global gap analysis.

It is recommended that each Member country is assessed against the quarterly reports on an annual basis.



Thank you Merci



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