



文件编号: 13611/2022/I/WIGOS/ONM/RBON

2022年7月4日

附件: 2份(仅提供英文版本)

主题: 向区域基本观测网过渡——第一阶段

需要采取的行动: 采取措施确保现有的 RBSN、RBCN 和 AntON 等站符合 RBON 要求, 在 OSCAR/Surface 中保持 WIGOS 元数据处于最新状态, 并在 **2022年7月31日** 前指出这些站中应该从 RBON 中移除的部分

亲爱的先生/女士:

我谨援引区域协会最近的一系列决定(见附件一中的清单), 这些决定确定将把区域基本天气网(RBSN)和区域基本气候网(RBCN)中选定的所有观测站指定为 RBON 站, 并开始建立区域基本观测网络, 同时注意到 RBON 站也将构成全球基本观测网(GBON)的基础。世界气象大会也决定通过关于南极观测网(AntON)的决议 49(Cg-18)将 AntON 并入 RBON。各区协还决定要求各会员确保所有 RBON 台站都根据 WIGOS 元数据标准在 OSCAR/Surface 中正确注册。

基于对 RBON 的规定(WMO-No. 1160, 第 3.2.3 段), 基础设施委员会(INFCOM)还决定制订一项向 RBON 过渡的计划, 包括以下阶段:

- 第 1 阶段(2022 年) — 将现有的 RBSN 站、RBCN 站和 AntON 站过渡到 RBON。这项任务包括根据区域协会和南极洲大会最近的决定, 将所有选定的、相关的 RBSN、RBCN 和 AntON 等站转为归属 RBON。
- 第二阶段(2023 年) — 设计和发展区域层面的 RBON。预计 INFCOM-2(2022 年 10 月)将建议区域协会在 2023 年期间应用 RBON 设计流程, 以便在 2023 年底之前决定新的 RBON 构成。RBON 的设计流程中将特别邀请区域协会选择少数高度优先的区域天气、气候、水和其他环境挑战, 并通过在 WMO 相关应用领域使用 RBON 数据加以解决。区域协会基础设施工作组或其相关任务小组将负责与区域会员和指定的 WIGOS 国家联络人协商, 应用 RBON 设计流程, 并制定一份更新的 RBON 构成清单, 以反映会员以后对 RBON 的承诺。

关于第一阶段, 秘书处已于 2022 年 6 月 7 日将 OSCAR/Surface 数据库中所有区域的 RBSN、RBCN 和 AntON 等站自动转换为隶属 RBON。

因此, 我请您检查贵国或地区的这些台站是否符合《WMO 全球综合观测系统手册》(WMO-No. 1160)第 3.2.3 节所述的 RBON 技术规则, 附件二对这些技术规则进行了总结, 并针对过渡计划第 1 阶段对这些规则提出了解释。此外, 请对这些可能不符合 RBON 规定的台站采取以下措施:

- 升级其中一些站点, 或采取措施使这些站点符合 RBON 规定;
- 如果无法升级其余不符合要求的站点, 则将其从 RBON 中去除。

寄送: WMO 会员常任代表

抄送: WIGOS 与 OSCAR/Surface 国家联络人

因此，请您告知世界气象组织秘书处这些台站中哪些应当从 RBON 中删除。如果我们没有收到您或贵国联络人的回复（[OSCAR/Surface 国家联络人](#)），在以下截止日期之前，贵国或地区所有以前的 RBSN、RBCN 和 AntON 等站点将继续隶属于 RBON。请将您的反馈于 **2022 年 7 月 31 日** 直接发送至 izahumensky@wmo.int。

我也邀请您与所在区域协会工作组或基础设施委员会合作，支持 RBON 在区域的实施，尤其是支持 2023 年 RBON 过渡计划第 2 阶段的实施，届时我们将请您承诺增加观测台站以解决上述具有高度优先性的区域挑战，以及由区域协会适时决定的挑战。

可能会就某些类型观测的区域数据交换开展试点活动，也请您促进或推动这些活动，其初步重点将是雷达观测和天文观测。

我期待与贵国的 OSCAR/Surface 联络人密切合作，在 OSCAR/Surface 中不断更新贵国/地区的观测站元数据记录，感谢您对推动 WMO 计划和活动的长期支持。

此致，

敬礼



张文建博士
代表秘书长

List of regional association decisions relevant to RBON transition

- Regional Association I, Africa: [Decision 11 \(RA I-18\)](#) – Regional Basic Observing Network (RBON) Design;
 - Regional Association II, Asia: [Decision 11 \(RA II-17\)](#) – RBON initial composition;
 - Regional Association III, South America: [Decision 3 \(RA III-18\)](#) – RBON Design;
 - Regional Association IV, North America, Central America and the Caribbean: [Decision 8 \(RA IV-18\)](#) – Regional Basic Observing Network Design;
 - Regional Association V, South-West Pacific: [Decision 5 \(RA V-18\)](#) – Regional Basic Observing Network (RBON) Design;
 - Regional Association VI, Europe: RA VI: RBON transition plan was discussed and noted at RA VI-18 Part II but not referred to in the [RA VI-18 Session Report \(WMO-No. 1260\)](#); it is included in the RA VI regional implementation plan;
 - Antarctica: [Resolution 49 \(Cg-18\)](#) – Antarctic Observing Network.
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**Summary of RBON provisions per WMO-No. 1160
and their interpretation for the merging of RBSN, RBCN
and AntON into RBON (Phase 1)**

Ref.: 13611/2022-13 (ONM)

The table below summarizes the RBON provisions (“shalls”) and how to interpret them for phase 1 of the RBON transition plan, pending definition of the more precise design process to be enforced in 2023 on the basis of INFCOM recommendations expected to be adopted by INFCOM-2 in October 2022.

Requirement	Ref. provisions in WMO-No. 1160	Interpretation for initial RBON composition and the merging of RBSN, RBCN and AntON networks into RBON (Phase 1)
Respond to user requirements as specified in OSCAR/Requirements	3.2.3.3, 3.2.3.6	<ul style="list-style-type: none"> • See under provision 3.2.3.7 below • For selected and/or upgraded RBON stations, make sure to have no regression in quantity or in quality of the former RBSN, RBCN and AntON stations, including that the RBCN stations selected for RBON will continue to report CLIMAT messages.
International exchange of the data in real time or near-real time	3.2.3.4	<ul style="list-style-type: none"> • The stations must be reporting in real time or near-real time on the GTS to allow their assimilation on Global NWP before the model cut-off time. • <u>Note</u>: Latency will be monitored with WDQMS and evaluated by the Regional WIGOS Centres.
4-year operations commitment (10-year commitment recommended)	3.2.3.5	Observing station is kept operational in compliance with RBON requirements for at least 4 more years.
Set of stations/platforms to enable RBONs to meet [for the identified top-level high priority variables], at threshold levels or better, observational requirements of all [prioritized] WMO application areas.	3.2.3.7	<p>OSCAR/requirements database provides observational user requirements of WMO Application Areas for the variables to be observed. These are expressed quantitatively in terms of goal, breakthrough and threshold (see RRR pdf document on WMO website) for the definition of these criteria). For phase 1 of the transition to RBON, user requirements are in principle to be met at the threshold level for Global NWP (RBSN, AntON) and for climate monitoring (RBCN). In practical terms, the following is proposed:</p> <ul style="list-style-type: none"> • For horizontal, vertical resolution requirements, it is advised to rely on the current performances of the existing RBSN, RBCN and AntON stations. • For uncertainty, it is advised to rely on the required measurement uncertainty as indicated in the <i>Guide to Instruments and Methods of Observation (WMO-No. 8)</i>, Annex 1.A, Operational measurement uncertainty requirements and instrument performance requirements.

Requirement	Ref. provisions in WMO-No. 1160	Interpretation for initial RBON composition and the merging of RBSN, RBCN and AntON networks into RBON (Phase 1)
		<ul style="list-style-type: none"> For the observing cycle of surface observing stations, a subset of the country stations (e.g. AWS) must be reporting hourly or more frequently (provision 3.2.3.9). For the remaining surface observing stations (e.g. manned stations that cannot be upgraded to AWS), the current synoptic hour reporting cycle will remain acceptable. Upper air observing stations should report at least once per day (preferably twice). For latency, see provision 3.2.3.4 above.
Subset consisting of stations/platforms that observe [top-level high priority] surface variables with an hourly or more frequent observing cycle, sufficient to meet the threshold observing cycle requirements of all [prioritized] application areas.	3.2.3.9	<ul style="list-style-type: none"> The prioritized application areas are understood to be Global NWP (RBSN and AntON) and climate monitoring (RBCN) during phase 1 of RBON transition. In this context, the top-level high priority surface variables are sea level pressure, air temperature, air relative humidity, wind, and snow depth (where snow is observed). Only a subset of the country RBON stations will be reporting hourly or more frequently, typically existing AWS stations targeting horizontal resolution required by GBON, i.e. 200 km, preferably 100 km.
Monitor RBON performance and rectify identified non-conformance.	3.2.3.17, 3.2.3.18	<ul style="list-style-type: none"> Members monitor the performance of RBON stations with a view to maintaining their conformance with RBON requirements. The Regional WIGOS Centres (RWCs) are also monitoring performance of RBON stations. Members are requested to address all incidents reported by the RWCs and to respond on action taken.