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This manuscript introduces the Reanalysis-Based Global Tropical Cyclone Tracks Dataset for the Twentieth Century (RGTracks-20C), a significant undertaking that aims to reconstruct global TC tracks from 1850–2014. While RGTracks-20C represents a valuable contribution to the field, several major concerns regarding its independence, validation, and methodological limitations must be addressed before it can be considered for acceptance.

(1） The core issue is that the 20th Century Reanalysis (20CRv3) assimilates observed TC-associated data from IBTrACS. Consequently, RGTracks-20C is not fully independent of the best-track data against which it is validated. This circularity undermines the dataset's utility for the early period (pre-1940s), as the reanalysis is inherently informed by the very observations it is meant to supplement. As noted in prior literature (e.g., Emanuel, 2024), this dependency means that 20CRv3 cannot be expected to realistically capture TC activity in data-sparse periods. Without robust uncertainty quantification for these early years, the dataset risks providing a misleading foundation for analyzing long-term trends in response to climate change.

(2) The validation presented is insufficient to establish confidence in the dataset's representation of TC behavior over time. The manuscript shows substantial inconsistencies in the trends of TC counts and intensity compared to observations. To address this, a more rigorous comparison of interannual and long-term trends—particularly for intense TCs, which may be better recorded in early observations—is essential. Furthermore, the study does not account for known heterogeneities in the observed record. For instance, the adjustment for TC intensity since 1945 discussed by Emanuel (2005, Nature) is not applied. Directly comparing the constructed TC intensity data to the raw IBTrACS data without such adjustments introduces a risk of misinterpretation.

(3) The dataset exhibits notable regional limitations, with lower detection skill in the Eastern North Pacific and North Indian basins, and to some extent in the North Atlantic. While the authors attribute this to biases in IBTrACS, it also suggests inherent limitations in the tracking algorithms or the reanalysis quality in these regions that are not fully resolved. The trade-offs between the two tracking algorithms are also a concern. The UZ tracker appears to miss weaker, shorter-lived TCs, while the OWZ tracker has a higher false alarm rate. The use of globally uniform thresholds may be sub-optimal, as TC characteristics and environmental conditions vary significantly across basins. A discussion on the potential for basin-specific tuning would strengthen the methodological justification
(4)Validation is heavily focused on the satellite era (1979–2014). Early-period validation relies on limited case studies, which may not be representative.