

## **Comments:**

As I stated in my previous comment, the application of potential methods for regional geological mapping and exploration is a common practice and in that context, the manuscript's purpose, its relevance, and significance of the findings is undeniable. Furthermore, the authors deserve recognition for addressing each of my comments, including specifics on data acquisition, enhancements to the gravity-magnetic modeling results, and the incorporation of borehole locations in the model, allowing for comparative analysis and information extraction from drilling data.

In the revised manuscript (with tracked changes), the authors noted that the gravity survey was conducted in the 1970s (line 215). “*Observation points were positioned 1–1.5 km apart, with elevation measurements taken using digital leveling referenced to benchmarks from the Survey of Bangladesh. Two gravimeters were utilized, the analog Sodin Worden and the digital CG-5 AutoGrav with integrated GPS, undergoing frequent cross-verification to ensure data accuracy*” (section 3.1).

However, I am a bit concerned that from what I know, the Scintrex CG-5 Autograv was first released in the early 2000s (around 2002), making it impossible for this gravimeter (CG-5) to have been employed prior to that time. This incorrect information raises a serious issue regarding the accuracy of the original details and responses, potentially compromising the authors’ credibility. I suspect they employed the Sodin Worden, and perhaps the *LaCoste & Romberg*, which were quite common during those years, but not the CG-5. Therefore, I urge the authors to clarify this matter and provide a truthful answer to ensure that the readers of this work are not misled. The same issue applies to the GPS system used in conjunction with the gravity survey for positioning. Which GPS system was utilized? Here again, I have doubts regarding the use of GPS in the late 1970s; to my understanding, GPS became available for public use only after 1993. Thus, a solid justification for these points is required. Either the survey was conducted later, or GPS and the CG-5 Autograv could not have been utilized in the late 1970s.