

Interactive comment on “Probable Maximum Precipitation Estimation in a Humid Climate” by Zahra Afzali Gorouh et al.

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Received and published: 23 February 2018

This paper provides engineering analysis of PMP in a northern region of Iran for which there are no existing values. The study area is located in one of the most flood-prone areas that floods cause billions in damages every year. Qareh Su basin is a part of Golestan province that has a long history of severe damage from the many people dying in floods. Due to the application and importance of PMP in designing structures as input data for calculation of PMF, and lack of comprehensive studies on PMP in the country's watersheds, it is crucial to perform PMP assessment using appropriate methods, such as Physical and statistical methods. For this purpose, two methods of PMP estimation were considered. In order to calculate statistical PMP, a Java-based software application was developed that could be used to facilitate estimates. By using

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this software the PMP values in 5-minutes, 1, 6, and 24-hours duration will update every year within the shortest possible time. By using this application, we can determine the best frequency factor based on observed rainfall in each area.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2018-38>, 2018.

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