Response to Inquiry at the June 13, 2016 ANAC Regarding the Point-of-Closest-Approach (PCA) Concept

Presentation to:
Airport Noise Abatement Committee

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Rhea Gundry
Response to inquiry at the June 13, 2016 ANAC regarding the PCA concept

The “point-of-closest-approach” (“PCA”) of an aircraft flight relative to an observer is the point at which the distance from the aircraft to the observer is the shortest during the “flyby.”

The distance from the aircraft to the observer at the PCA is normally called the “slant distance.”

The slant distance almost always greater than the aircraft’s altitude at the PCA.

- The slant distance and altitude are equal only if the aircraft flies directly over the observer.
- Otherwise, the distance is increased due to the aircraft being offset from the observer.
- The ANAC noise reports present the aircraft altitude at the PCA, not the slant distance.

The following examples will help to illustrate this situation.
PCA example for an aircraft that flew just to the northeast of RMT 8
PCA example for aircraft that flew almost directly over RMT 2 and 3, at RMT 2
PCA example for aircraft that flew almost directly over RMT 2 and 3, at RMT 3
Thank you for your attention and interest!