## Review

- 1. Summary: this should be a paragraph or two stating the purpose of the paper and outlining how the author attempts to fulfill that purpose
  - The project focused on combining two papers along with Dubin's work on Dubins Feasibility Intercept Plane (DFIP) to be able to simulate a technique that would allow for prediction of the trajectory of an intruder into some airspace provided certain assumptions about the time that it takes for the intruder to reach its target position. This would allow for a much poorly funded military to intercept significantly more expensive enemy equipment
- 2. Technical correctness: this section will discuss whether the author's claims are sufficiently backed up. For technical results, this might include any criticisms of the correctness of a proof. For a survey, this might include whether the author makes any statements that don't seem to be supported in the literature. This section will also include any fact-checking that may need to be done
  - Overall, I'm impressed with the amount of understanding that it would take to summarize the work of 3 separate papers, combine it, and improve upon it to make an even more effective algorithm for intruder interception. However, there were some claims that I had a hard time understanding, especially on the paragraph that discusses the "Δt" term (last paragraph in page 2). I can't speak much about the technical correctness of those assumptions without diving into the papers myself, but I would have appreciated maybe some illustrations that could further explain how the assumptions in that paragraph make sense and apply to the general objective being demonstrated.
  - Something related to the " $\Delta t$ " discussion that I think would be helpful is to add more backup to the claim that an arbitrary value for it is effective. I didn't quite understand why or what it would look like for a choice of " $\Delta t$ " to not be effective. I guess I had a hard time understanding the logic or arguments as to why that was the case
- 3. Organization/readability: this will be an analysis of the clarity of the paper. Is it organized well? Are there ambiguous statements or language that are

confusing? Are there assumptions made about the reader's knowledge that may not hold?

- This is where I felt pretty lost in the sense that since I didn't read the papers that this work was based off of, it was assumed that I would understand how the work by Yan et.al. was justified and connected with the other paper and the Dubins paper. Since there was only a figure about the results of the simulation, but not about the background of the other papers (other than brief conceptual explanations) I had a hard time keeping up with the content shared
- I did appreciate references to both figures and some brief description on them, but it felt rushed rather than really trying to highlight the details and performance described by them to aid the reader in digesting them properly
- I think it would help if the author divided the paper into sections that
  accomplished a specific objective to guide the reader as to what will be
  explained. Since everything was just one big section it was hard to draw
  the line between his work and the work coming from the papers he
  referenced
- 4. Related Work: this section will examine how well the paper is supported by other literature. For example, is the paper missing an obvious citation or ignoring work in a similar area?
  - The paper had great support and as I already mentioned, I was impressed
    with the level of understanding needed to not just comment on the work
    of the sources, but also to improve the algorithms and even simulate
    them
  - However, something already mentioned above is that it was hard to draw
    the line between his work and the work of the other papers in a few
    instances so maybe more distinct references when a sentence is finished
    would help draw that line better
  - The related work in this paper was definitely one of the strong points as the amount of work needed to explain and simulate things was evident
- 5. Importance/utility: this section will examine how useful or relevant the paper is. For a biography or history, this section could discuss whether the person or idea

is important to the field. For a technical result, this section could discuss the novelty of the result.

 I liked how there were some instances where the work was tied to specific applications such as in the introduction and also in the concluding remarks. I think that was helpful to really strive to dig deeper into the read and try to understand better since this apparently could really be something that would make an impact in the process of determining trajectories for intruders in the airspace of a military conflict.