



2022 Blue Skies Competition Q&A #2 Session Summary Document February 8, 2022; 3:30-4:30 PM Eastern

Technical Questions Received on the Call

- 1. In the Guidelines, it talks about discussing Technology Readiness Levels. Is that intended to be the TRL of today, 2050, or sometime in between?**
 - Your paper should discuss where technologies are now and where you expect them to be in 2050. Your background research will help inform the current aviation landscape and how you think that will evolve by 2050. Teams may find different things in their research about the current TRL of different aviation technologies and expected progress in the competition timeframe. It's up to your team and your research to predict where it will be in the target timeframe since some technologies may or may not be ready by 2050 for airport implementation.
- 2. In the November Q&A, teams had questions regarding what technical aspect they should focus on in their airport design. Please elaborate on the design choices being up to teams.**
 - Design choices and airport technology choices of the future will depend on your own research. You can look at 10 different aviation papers and find 10 different visions of what the 2050s might look like technology-wise, infrastructure-wise, even down to the type of vehicle, shape/configuration of the airplane, and the fuels used. We're leaving it up to teams to decide, based on their research, the picture they're painting and to justify the technologies that will enable the future they've determined.
- 3. Is there any budget to consider when designing the airport?**
 - The competition is not about the budget. However, costs of technologies incorporated into the design should be reasonable, and fit into a reasonable budget. Costs change over time; they may be less or more expensive in the future. Use best judgement about what might be reasonable as far as airport expenses today and how your selected technologies might fit into budgets/expenses in the future.
- 4. How do I know how to tailor my design and ensure it meets competition criteria?**
 - Please refer to the Competition Guidelines. These are thorough in outlining the types of things we do and don't want in your submissions. We don't want you to spend valuable page space on items we're not looking to see. It also outlines how we'll be judging the various elements of your project: paper, infographic and even presentations for the finalists.

Programmatic Questions Received on the Call

1. When will winning teams be able to enter into their internships?

- First Place team members at the 2022 Gateways to Blue Skies Forum will be able to pursue internships in one of three semesters: Fall 2022, Spring 2023, Summer 2023. The variety of semesters allows participants to find an internship in a timeframe that works for each student and academic schedule. Finalist teams will receive information on how to apply following the April 7 selection date. Once winners are announced at the Forum, they will receive additional instructions for placement by the NIA Team and NASA's Blue Skies sponsors. Internships may be available at NASA Aeronautics Centers nationwide, pending mentor and project availability.

2. We are working on our proposal as a project this semester. If we get picked as a finalist, are we allowed to make changes to our proposal and infographic after March? Will we lose points? How should we send our changes to the judges?

- Submissions cannot be changed after the original submission deadline. The paper and infographic will be judged as submitted. If you are a finalist, after you make your presentation on information in your technical paper, you're welcome to discuss updates that you've talked about or developed, or show an updated infographic. However, if you look at the evaluation criteria, we are not evaluating those additional technical/infographic updates in the presentation for the finalists. Presentations will be judged on the quality of presentation, consistency, and the team's ability to answer judges' questions.

3. If COVID persists into the Spring and Summer, will we still have an in-person Forum?

- The answer is somewhat TBD. We hope to have an in-person Forum if NASA guidance and stakeholder comfortability allow us to do so. However, there are many moving pieces to arrive at that decision, such as the questions we've added to the proposal submission form. These questions have no stake in scoring your technical paper, infographic and video; your answers will help program leaders decide how to proceed with hosting an in-person forum. We're asking teams to help inform us about their level of comfort and travel restrictions they are aware of, so we can make the most informed decision possible. We expect to provide a determination to finalists upon selection.

4. How comprehensive should our NOI be? Should the concept include all the planned components we'd like to include, or should it home in on one specifically?

- Regarding NOIs, the idea for us wanting to know the concept at the NOI stage is to ensure teams are on-track. If teams are proposing something out of the scope of the competition, we would have the opportunity to reach out and redirect before a team invests time in writing out the proposal. An NOI is a very high-level overview of items you'd like to touch on – a quick summary. Additionally, submitting an NOI helps us to stay in touch with you on program updates. NOIs are non-binding; submitting a proposal after submitting an NOI is not required. Additionally, a technical paper does not need to adhere to the concept proposed in the NOI; changes may be made between submitting an NOI and submitting a technical paper.

Regarding the Technical Paper, it should be very high-level. Teams only have 5-7 pages and there is a lot to cover. Take a high-level systems approach to talking about the technologies and about the

requirements needed for the airport or changes are needed design-wise; then you can discuss all the technologies that are important that you'd like to mention in the allotted pages. Avoid going too in-depth on one technology at the stake of not being able to talk about other relevant technologies.

Miscellaneous Questions Received on the Call

- 1. Can we have an Appendix for tables or figures in our paper? If we have an Acknowledgements section, is this included in our 5-7 page limit?**
 - Appendices and calculations do not count toward the 5-7 page limit. Background information such as calculations and figures may be included in these pages. However, be careful not to include information that extends the 5-7 pages, as that will be outside of the judged content. Avoid putting pertinent information in these extra pages, as it will not be judged.
- 2. Would you like to see endnotes or footnotes within the 5-7 pages of the technical paper?**
 - Either is fine. Endnotes would enable a team to utilize all real estate available in the technical paper for information useful to the judges and relevant to the design. However, footnotes would allow judges to see references without flipping through pages.
- 3. What makes an attractive, informational infographic?**
 - The infographic isn't supposed to be overly technical. The purpose of an infographic is to communicate the ideas from your 5-7 page paper about the 2050s climate friendly aviation technologies and the airport design to enable those technologies – communicated in a way that someone not already informed about aviation can understand. An infographic contains information, but the graphic part is the main component. Make it visually appealing, but still have some text to get information across to the viewer. Note that this is not the traditional technical poster; it is visually heavy, not text-heavy. It can be creative; Googling “infographic” can give plenty of ideas for how to approach this part of the project.
- 4. Are there any examples for what our video should look like? Something along the lines of a TED talk or a short YouTube video?**
 - The video is short, at 2 minutes. It should be an elevator pitch for your concept, as there is not a lot of time to go in-depth. However, feel free to make it unique to your group. We love to see teams! The video is also a chance to show your concept through graphics, animation or CAD renderings, as well as verbally summarize your concept – all within the allotted timeframe. The video is another chance to showcase your idea in a different medium.

Below is a link to some sample videos from the BIG Idea Challenge. *NOTE: These videos are for a competition that is much more technically in-depth. Teams have significantly longer, almost 12 months, to work on these programs.*

https://youtube.com/playlist?list=PLs7vr7c_0SdHEmUwsMV-ELCgwfxfag2b7M