2023 Blue Skies Competition
Q&A Session #2 Summary Document
January 26, 2023; 3:30 – 4:30 PM ET

Questions Received on the Call

1. **Could you confirm that the Final Research Paper and Infographic are due on March 28th, the same day as Teams' Selection Notification? It's listed as May 14th on the Competition Guidelines Document.**
   We apologize for the incorrect information on the previous slide! The Final Research Paper and Infographic are due on Sunday, May 14, 2023, by 11:59 PM ET.

   Note: Slide 6 in the Presentation Chart Deck has been modified to reflect the correct due date.

2. **Can future/speculative technology be considered as a part of this effort, or is it just present-day technologies?**
   Of course, you can consider future/speculative technologies. Keep in mind that points are assigned to your ability to justify both your selected fuel/energy source and the technologies you are looking to use. If you have research that you think can justify the viability of the chosen energy source *and* how it is getting from one place to the end point safely and sustainably, you are welcome to use that. Judges are looking to you to demonstrate that you have done your research and the choices you are making are backed up by peer-reviewed papers and science.

3. **What is a good balance between innovation and feasibility? How will those two items be judged?**
   There's always going to be a tradeoff between innovation and feasibility. Sometimes, things that might be seen as more innovative will be riskier. It's important to note the current TRL (Technology Readiness Level) of technologies when you talk about them in your paper or presentation, so that judges understand where we are now with the technologies you are utilizing. Hopefully, part of your paper talks about how we are going to get where we need to go with those technologies by the desired time frame.

   With respect to aviation, today's technology relies on burning jet fuel, and there are lots of emissions we are trying to eradicate. From creating an energy source and taking it up to the point where it reaches the aircraft, there is a good chance that the

technology and process of creating, transporting, etc. the energy source might not exist. If you develop a concept that covers how to do that, even if it seems challenging, and brings to light a creative idea with proper justification, you will go a long way in this competition.

Please review the 2023 Blue Skies Scoring Matrix to see how the Proposal and Video Submissions will be evaluated.

4. **This is a question about the supply chain. Are you looking for us to address multiple avenues of how a particular fuel can be created, or are we supposed to say this is how it is going to be made in our assumptions and go from there?**
   It's completely reasonable to say that there are multiple potential ways that this fuel can be created and to list the pros and cons of each. You might choose to do an assessment to identify the most viable option based on the pros and cons.

5. **For our team, this type of proposal is unique. Are there any resources, such as existing proposals, that can guide the proposal we submit? Are there any NASA documents that can provide inspiration for formatting or useful visuals and graphics?**
   There are plenty of peer-reviewed papers that you can gain inspiration from that can be found through your university libraries or even the NASA Technical Reports Server (NTRS). We do not expect you to create pictures of aircrafts that do not exist yet. If you use an existing picture, please cite the source/credit. As far as the design and look of your visuals (graphics, timelines, etc.), we are open-ended in this competition and look forward to seeing your creativity. For example, we do not expect students to follow any NASA specific formatting guidelines.

   If you would like to view examples of previously submitted final research papers, visit the 2022 Competition Record Webpage. To view last year's team presentations, visit the Gateways to Blue Skies Livestream.

6. **Our team has been talking about ideas for the video submission. We have gone over an idea that is more fun and lighthearted than the serious nature of the proposal itself. We do not want to come off as unprofessional. Will this be an acceptable submission?**
   We love fun and lighthearted! The video itself is worth fewer points than the proposal and is used to convey your concept in a condensed and personable manner. We would love you to have fun with the video!

7. **Are we allowed an appendix in the paper? If so, does it count towards the total page count?**
   Yes, you are allowed an appendix, and, similar to last year, it does not count towards the total page count. You do need to make sure that anything that appears in the appendix is not critical to your overall concept, because judges are not required to

read past the published page count. Please see Pages 7-9 of the Competition Guidelines Document for full details about the proposal submission, including details about how appendices may be used.

8. **As far as calculations go, would you want to see that in the actual main body of the proposal, or are they to be located in the appendices?**
   If they are not necessary to your concept and justification and provide backup information, do not waste valuable proposal space on calculations. You can always reference your calculations located in the appendix. However, if calculations are vital to your concept and justification, make reference to them in the body of the proposal.

9. **In the Competition Guidelines, it references using pictures and graphics within the proposal. Do those count towards the total page count?**
   Yes, they would. This paper will be a high-level systems view of your proposed concept, the process and journey of your energy source. If a picture, chart, graphic, or image can convey your concept better and faster than a series of words and sentences, you might choose to utilize a graphic instead.

10. **Regarding cost analysis, the Competition Guidelines specifically state that this is not a cost analysis-focused proposal. Would a small portion of cost analysis be okay to include? Should we include how we came up with certain costs?**
    Cost analysis is part of feasibility, so we definitely want you to be reasonable with your costs. If something has astronomical costs that makes it non-viable, that makes it harder to justify.

11. **There are a lot of considerations (technical, social, political, financial, and environmental) to make in the short page limit that this proposal has. How much emphasis should we place on each within the proposal?**
    Technology and the environment are the focus of the competition. Social, political, and financial are ancillary factors that may be relevant and can be mentioned in justification as it relates to your choices about the future aviation landscape. During the course of the next 27 years, which is the timeframe of this project, certain factors can cause chain reactions that may influence your decisions and justifications. You can account for these in your proposal, as needed.

12. **Compared to a conference poster, how should the Infographic look? What do the judges want to see?**
    We encourage everyone to check out the examples from last year's competition and/or simply search "infographic" in an internet search engine. It should be a simplified way to showcase your entire idea in a cohesive manner. It should be something anyone can look at and understand what message you are trying to display without you being there to explain. The infographic is geared towards a less-technical audience. To view previously submitted infographics, please visit the 2022 Competition Record Webpage.

Response from Q&A Session #1 (November 2022): An infographic is a more visual, less technical way to present information from your proposal – in this case, the alternative energy and its journey from where it is to where it needs to be. Charting that outline while doing your research is a good idea, to help figure out how to structure your paper, presentation, etc. It's important to realize that not everyone is an expert in these alternative energies, or these chemistries, etc., so figuring out how to explain it in a way that anyone can understand is important, not only for judges, but for audiences in general.