Dear Alaska Space Grant Program, Graduate/Undergraduate Fellowship Applicant

I had the pleasure of reading through proposals that four of you submitted. In doing so there were some common issues that came up that I'd like to address for you. I write and read a LOT of proposals, so can speak with some experience as to what constitutes a good, and therefore fundable, proposal. I don't know if you are planning to continue in science/engineering or academia, but I would venture to guess that some of these are good for basically any writing that you do.

Remember that a proposal is a sales document. You are selling your idea to a funding agency that will likely be inundated with lots of proposals selling their idea. In the current funding climate, just having a good idea is not enough, it needs to be clearly and precisely presented, and the reasons that the funding agency should want to spend its precious funding on *your* idea need to be no-brainers by the time they are done reading your proposal.

You typically have two audiences for you proposal. There will be some panel of experts (a group of 'peers'), who will likely be reading their 5 to 10 assigned proposals (often *just* before the meeting to discuss their ranking of all the proposals with their other peers). The other audience will be executives at the funding agency (NASA, NSF, DOE, Google, etc.) who will take the recommendations of the peer review and then, using some magic formula, known only to them, make the final decision as to which proposals are funded and which are not. So here are some basic guidelines to remember when writing proposals for funding.

1) *Do your homework.* A loosey-goosey proposal that says we want to do some "stuff" will no longer cut it. You need to understand how much potential funding is available in the program you are proposing to, and think carefully about how much you can accomplish with this level funding. Don't propose to build the starship Enterprise, on a $10,000 grant – nobody will believe you. Conversely, don't propose to brush your teeth for a $1,000,000 grant – nobody wants to be indicted. Develop a clear plan before you start writing, and make sure the proposal clearly reflects this up-front planning.
2) *Be concise and clear*. For neither group (peers or executives) do you want waste their time with text that is not directly, laser-focused, on the points you are trying to make. So a) make sure you know what you want to say and b) make sure that everything you write backs that up – delete the superfluous stuff. (Or as I like to say – *eschew obfuscation*). Also, don't be scared of short, declaratives sentences. A good plan is to write your proposal, wait a day or two and read it again and see if it is saying what you want it to say (yes that means planning ahead). Getting someone else to read it can also be very helpful.
   a. Establish (with reference to prior work) that a scientific or technical problem actually exists.
   b. Establish that this problem is more important to the agency/program than anything else they could possibly be considering.
   c. Describe how you will address the problem.
   d. Demonstrate that there is clear and specific path to scientific deliverables and scientific closure, and that everything in your budget is required to complete this path.
3) *Don't lose by not winning*. The main exception to number 2) is when the document defining the format and content of the proposal clearly states that you have to include something.

Again, the peer reviewers will probably be comparing your proposal to a list of proposal requirements, so make sure that you put everything that is required to be in the proposal in your proposal. If it is a good proposal, they might overlook the lack of something, but if it is just an OK proposal they may well use your failure to include a required section or attachment as a convenient method of eliminating your proposal. It is also good to keep the same order and numbering system in your proposal as the sections described in the proposal definition document.

4) *Don't be afraid to help your reviewers*. When faced with 20 pages of 11-point font text, the average reader's attention is likely to start drifting toward what they will be having for dinner. Make the text easy to read with reasonable font size (many proposal requirements documents will tell you the minimum size). Put in a few figures or tables to break up the text – but make sure they are supporting your overall message – don't put in pictures of your puppy (unless he plays a key role in the proposed work). Again, this is a sales document – don't be shy about ***emphasizing key words*** with some formatting changes (*but* make sure they do not violate the proposal formatting requirements). Turn sections that contain several individual topics into lists (like this). Make your section titles descriptive, informative, and maybe just a little intriguing. All of these make the text seem a little less daunting, and help emphasize your key themes. Don't go overboard and make things look too gimmicky, but proposals don't have to look like a 1930's Encyclopedia Britannica to be successful.

A couple of other pet peeves of mine in particular. Be careful about using jargon and acronyms. While the reviewers may be your "peers", that can encompass a wide group of people and they may not be in your particular area. Be clear about you definitions of terms you may use if they are key and/or specific to your area of expertise. Be sure and define acronyms the first (and sometime subsequent times) as soon as possible (ASAP).

Also make sure and proofread your proposal before turning it in (and if you get someone to review it ask them to proofread it too).

So, in summary, if you try to put yourself in the mindset of a reviewer, you will see how these guidelines would make you more favorable toward a certain proposal. Your proposal will still have to contain a good idea to begin with, but to be more competitive with other good ideas these are likely to help.

Reviewer