

# **Towards More Approachable Acquisitions**

## A Review of Solicitation Best Practices

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in support of research conducted by  
Federal Foundry  
and  
MIT Mission Innovation X

and funded by the  
Defense Advanced Research Projects Agency  
(DARPA)

# Towards More Approachable Acquisitions: A Review of Solicitation Best Practices

## Introduction: acquisition outcomes are driven by solicitation quality

In FY2021, the Department of Defense (DoD) spent almost \$400 billion on contracts for products and services. For DoD and the Government generally, the importance of solicitations to the quality of eventual acquisitions has been clear for a long time. However, too often, solicitations are viewed by the market as incomplete, unclear, or unnecessarily challenging to respond to. This makes it difficult for prospective vendors to demonstrate their suitability and impossible for the acquirer to reliably select the best vendor.

*The RFP is one of the most important documents in the acquisition cycle. All of the preparation and planning for a procurement goes into the RFP as the key communication to potential contractors on exactly what, how, and when the Government needs to buy. **If the RFP does not fulfill this primary purpose—communication—the best planning may be upset. The basic message is elementary—the RFP must be complete, concise and a clear communication of Government requirements.***

– 1978 Air Force Acquisitions Guidebook

In collaboration with [Federal Foundry](#), MIT's [Mission Innovation X](#) has found a number of practices DoD should adopt to address the (real or perceived) issues with solicitations. Our research involved analysis of over 100 Defense Advanced Research Projects Agency (DARPA) solicitations using natural language processing (NLP), review of existing literature on solicitation and technical document development and interviews with performers who have pursued contracts across DoD.

## Best practices: simple sounding, practically challenging

Objectively ‘good’ solicitations are “complete, concise and clear communication[s] of Government requirements.” Concretely, the aim of a solicitation is to enable a reasonably competent vendor to 1) understand Government requirements and 2) respond with an appropriate submission reflective of their suitability for the award. Naturally, putting this into practice is harder than it sounds. Perceived shortcomings are numerous and have been well-documented - a Google search on the topic yields article headlines like “The Absurdity of Government Contracting”. Our research reinforces a view put forward in The Nash & Cibnic Report in 2019: the issues with solicitations can be grouped into three areas - 1) document structure and organization, 2) document content, and 3) document design.

*We read a lot of solicitations and find the experience to be dreadful...*

– Vernon J. Edwards, Federal contracting researcher, writer and lecturer

### Document structure and organization

Document structure and organization has three components. Firstly, the overall structure of a document - the nature, number and order of sections within the document - should support the document’s purpose. Per Barbara Minto’s Pyramid Principle, sections of a document should be mutually exclusive and collectively exhaustive (“MECE”). That is, sections should not contain overlapping content (mutually exclusive) and, taken together, they should contain all necessary information (collectively exhaustive). Regarding ordering, a narrative structure (situation, complication, resolution) promotes readability. Sticking to a simpler narrative structure avoids ‘interruptions’ to a document’s flow. For example - as we saw in many solicitations - when administrative information appears in the middle of a solicitation, this interrupts the natural connections between context, requirements, submission instructions and evaluation criteria.

Secondly, headings and subheadings should be used to help guide the reader and improve readability. These (sub)headings should be identical to the document’s table of contents. Easy navigation is particularly important for documents like solicitations where the document will be revisited multiple times - readers review specific parts of solicitations to locate language or

guidance as they compile their submissions. Good (sub)headings are descriptive enough to help the reader grasp the content to follow. For solicitations, they should also appear frequently enough (generally, at least once a page) so readers can quickly relocate specific pieces of information. Many solicitations fail to offer subheadings for multiple pages, which is frustrating for the diligent responder trying to locate a critical, specific piece of information.

Thirdly and finally, content should be appropriately organized into the sections of the document. While this sounds obvious, our review found at least 3 in 4 solicitations had content appearing in the ‘wrong’ section, for example submission instructions appearing in a section purporting to contain background information.

*“[It can be] hard to understand the point of each section [of a solicitation] ... the hard part is understanding what you actually need to put in each section to be successful ... I can read and understand it ... but not sure what I should be saying to be successful. Don’t really know what they’re looking for so don’t think I have a good chance”*

– Founder of a DoD vendor

## Document content

Document content refers to the actual text (and graphics) used to communicate. It’s easy to generate a long list of adjectives that describe effective communication - the Mayfield Handbook of Scientific & Technical Writing offers “accurate, clear, concise, coherent, and appropriate.” We would add that these characteristics are particularly important when providing instructions. Following are a selection of observations from our review of solicitations and interviews of DoD vendors.

On accuracy and coherence, inconsistencies are far too common. A frequent example is submission guidance that is in conflict with other content in the document. On clarity, language is often vague or too general (for example, asking for a ‘top level plan’). In other cases, instructions are incomplete, in that they are, on plain reading, incapable of sufficiently addressing the evaluation criteria. On conciseness, content is often repeated - submission instructions or evaluation criteria are repeated (or worse, fragmented) across multiple sections of the document. In our interviews,

we also heard about examples of superfluous text - for example, long lists of evaluation criteria that could likely have been simplified.

*“Directions contradict ... they ask for the same thing in 3 different sections even though there is a strict page limit... [feels like the writers are] not really paying attention”*

– Capture Management Lead at DoD vendor

We also want to mention the use of Government- and Defense-specific vocabulary prevalent in solicitations (and, in our interviewees’ experience, in their interactions with potential Government or Defense buyers). We (and our interviewees) appreciate the need to ‘speak your customer’s language’ and that DoD solicitations often concern advanced technology. However, many of our interviewees are experienced salespeople and operators (often with military or other government experience) and even they described regularly running into ‘language barriers’. This is particularly challenging for new and non-traditional vendors. Simpler, plain English should be used where possible.

*“Our first solicitation ... we hired a consulting firm and as we wrote stuff with them, we started to get it. It was a lot of stuff that seems like a whole new world, even in the same industry.”*

– Chief Commercial Officer at DoD vendor

## Document design

Document design includes page layout (margins, spacing) and typography (font choice and size). Butterick’s Practical Typography standards are a ready starting point and promote readability. Solicitations we reviewed were drafted with different (and often inconsistent) standards - small font sizes, single spacing and thin page margins - making them hard to read.

## Recommendations: towards approachable acquisitions

We see three ways solicitations could be made more approachable for vendors.

The first is to update the standard design and structure guidelines to improve readability. A potential typography guide - adapted from Butterick's Practical Typography for solicitations - appears below. Moreover, a simplified, narrative-based structure (context, requirements, submission instructions, evaluation criteria) would improve navigation and readability.

Secondly, we believe it is possible to simplify the evaluation of submissions, and therefore the requirements imposed on potential vendors in their submissions. Too often we (and our interviewees) saw long and detailed instructions for submission, only to find those instructions incapable of addressing the (similarly long and detailed) evaluation criteria. We also heard about occasions where vendors' contacts would overrule some of the superfluous detail in these instructions and tell them "this is what really matters". Finally, some specific requirements were required in a specific format, or to be compliant with certain requirements (for example, cost estimates within a specific range). Where such specific requirements are known in advance, prescriptive templates should be used to prevent otherwise suitable vendors from making non-compliant submissions.

*"If they provided templates for the specific things they want, that would make it easier"*

– Capture Management Lead at DoD vendor

Thirdly, the above two changes could be integrated into a 'smart drafting' tool which would generate documents from model examples and adapt them based on specific inputs provided by the contracting team. The tool would embed the design standards, standard structure and also guide the drafter through a checklist or process. We have provided a potential checklist below, which could also be used 'on paper' before such a tool is implemented.

A final note on the use of technology to improve solicitation drafting. The last few years have seen rapidly accelerating momentum in the field of generative AI. Companies such as Grammarly and Copy.ai have attracted millions of users. The week we drafted this report was the week OpenAI released ChatGPT - another monumental step forward. We believe it is only a matter of time before 'text generation' tasks will be, by default, significantly aided and enabled by similar AI technologies, and solicitations will not escape this trend.

## References

Matthew Butterick, *Butterick's Practical Typography* (Online: Matthew Butterick, 2013), <https://practicaltypography.com/>.

Vernon J. Edwards, "What We Have Here Is Failure To Communicate: The Poor Quality Of Government Solicitations", *The Nash & Cibnic Report* 33, no. 12 (December 2019): 70.

Vernon J. Edwards, "Contract Line Items", *Briefing Papers* 21, no. 9 (August 2021): 1.

Barbara Minto, *The Pyramid Principle: Logic in Writing and Thinking* (London: Prentice Hall, 2010)

Leslie C. Perelman, Edward Barrett, and James Paradis, *Mayfield Electronic Handbook of Technical & Scientific Writing* (Mountain View: Mayfield Publishing Company, Inc., 1997), <https://www.mit.edu/course/21/21.guide/>.

U.S. Department of Defense, *DOD Releases Report on Defense Spending by State in Fiscal Year 2021* (2022), <https://www.defense.gov/News/Releases/Release/Article/3194361/dod-releases-report-on-defense-spending-by-state-in-fiscal-year-2021/>

W. Plumb, *Airborne Systems Software Acquisition Engineering Guidebook for Statements of Work and Requests for Proposal* (1978), <https://apps.dtic.mil/sti/citations/ADA076544>.

## Guide

<b>Element</b>	<b>Requirement/ commentary</b>
<b>Design - page layout</b>	
Margins	1.5-2.0 inches
Line spacing	120–145% of the point size
Headings	Clear hierarchy
First line indents	0.5 inches
Paragraph spacing	Not required in addition to indents - one or the other If using spacing, 4-10 pts
Page breaks	Not placed in inconvenient locations which would separate logically connected information
<b>Design - typography</b>	
Font	Use a standard serif font - e.g. Times New Roman
Size	12pt+
Bold/ italic/ underline	As little as possible. Never underline
<b>Organization - structure of sections and subsections</b>	
Table of contents	Per below
Overview	Key information, dates, contacts
Part I: Funding Opportunity Description	Background information, program structure, milestones, specific requirements
Part II: Application & Submission Information	Content and form of submission, submission instructions
Part III: Application Review	Evaluation criteria, process for review
Part IV: Administrative Matters	Eligibility, award information and administration, other information
Appendix	Further program or submission information as needed



## Checklist

- **Before starting** - do we have a clear idea of what constitutes success for this program, and therefore what a winning proposal to this solicitation looks like?
  - Technical - what technical capabilities (breadth, depth) will be required?
  - Financial - what is an appropriate financial reward or incentive for a winning awardee?
  - Administrative - what administrative capacities do we expect in a winning awardee for a piece of work of this size and nature?
  - Other - are there any other specific items this program or solicitation requires for success?
- **Organization and structure** - is each section distinct and clearly labeled?
- **Design** - have we complied with the typography standards?
- **Completeness and specificity of content** - have we included all relevant information that will enable the average submission to meet a base level of quality?
  - Specifying our requirements
  - Providing guidance on preparing submissions
    - Submission guidance should explicitly contemplate and be linked to the evaluation criteria
    - Limit extraneous/ superfluous requests, or at least group long lists under headings so that an offeror can easily produce a coherent document
  - Providing guidance on submission evaluation criteria to be used
    - Directly addressable by the content of a submission
    - Sufficiently specific that the objective offeror could estimate the quality of their submission
  - Specifying the proposed contract terms and other pertinent administrative matters
- **Clarity of content** - can a reasonably informed outsider comprehend what we are asking for?
  - Do we have logically connected information together in the document?
  - Have we omitted all unnecessary technical language, jargon, acronyms?
  - Have we used charts/ figures where opportune to improve clarity?
- **Conciseness of content** - is the document easy to read?
  - Have we addressed each key topic exactly once?
  - Are solicitation provisions incorporated by reference only?