



# CBDAIF Discussion Points

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# Overall Product Quality

## How important is quality?

- For CBRN items quality is paramount.
  - One critical area to the assessment of quality is a clear, concise specification/control document that allows the item to be produced under commercially accepted manufacturing standards.
- Conceptually important but difficult to quantifiably determine a prospective value especially on new programs.

# Overall Product Quality

## Is there a cost vs. quality trade-off?

- Yes, quality should be built into the cost because Industry prices an item based on the quality standards set by the customer.
- Cost and quality often compete with each other.
  - Contractors cost is calculated based on the requirements.
  - Decisions are made based on lowest cost vs the best value solution.
  - Often a lower “priced” company meeting minimum requirements is preferred over a higher “priced” firm that exceeds the requirements.
- Trade-offs are needed when requirements are too stringent for technological solutions still in developmental stages.
  - Spiral development and rapid fielding initiatives may cause trade-offs to satisfy urgency.

# Overall Product Quality

## What are the consequences of non-conforming products?

- Delays, rework, user safety and in the case of CBRN, human life.
- Negative results are wasted investments of industry/Government RDTE, client resources and limited salvage opportunities.

## What are roadblocks to quality?

- Poorly written requirements documents
- Unrealistic time lines
- Over-engineered and unrealistic mandatory quality management controls that are not effective reality, built to impress, but not effective or efficient execution.
- Lack of commitment by all stakeholders
- Cursory attention and short cuts
- Specifications or other control documents that are clear, concise and allow the item to be produced under commercially accepted manufacturing standards.
- Competitive pressure; resistance to change; poorly conceived quality programs (focus on administrivia vs. product)

# Overall Product Quality

## Should a formal quality program be a contract requirement?

- Yes, a formal quality program should be a requirement.
- We fully endorse a quality program to ensure our forces, receive the very best, timely solutions.
- Quality Assurance needs to follow after award.

## Has industry increased or decreased its quality infrastructure?

- With wide acceptance of quality initiatives like ISO and Six Sigma industry has increased and adapted its quality infrastructure.
- Companies use their quality programs as a discriminator from the competition.
- Most companies maintain an aggressive quality program seeking continuous improvement of products and services.
  - When demonstrated it earns future contracts.

# Quality of Low Rate Initial Production

## What are the reasons for quality problems in LRIP?

- LRIP requires careful attention to detail
- It is a process used to prove that the item can be mass produced.
- This is not as much a quality issue as it is a development issue.
- Certain markets have very infrequent opportunities for industry to participate. Therefore, industry may not be inclined to invest in Research & Development (R&D) because the return on investment is not there.
- When opportunities arise, technology readiness levels are often lower than a procurement requires increasing risk of successful LRIP phases.
  - This can be avoided by frequent and meaningful communication with industry and market research.
  - Procurements need to be tailored to the level of current technology.
- Disagreement of testing communities.
- Too hasty adoption of technological solutions that are not fully synchronized with other systems ~ Engineering on the fly.
- Need to separately consider developmental and learning curve issues from true quality deficiencies.
  - LRIP is done to learn and improve the process.
  - More critical may be a disciplined process to capture the lessons learned during LRIP.

# Quality of Low Rate Initial Production

Are these quality issues unique to CBD products?

- No.
- Business opportunities within the CBD arena are less frequent than in other areas, creating relatively low ROI and technology readiness levels often do not match Government requirements.

What can industry and government do to improve LRIP quality?

- Thorough and open partnering during the R&D process.
- Upfront product and process design investment.
- Frequent and meaningful communication with industry
- Conduct more comparison/run off competitions.

# Defense Contract Agency Role

## How do you (JPOs and industry) view the role of DCMA?

- DCMA should be the government's face to industry for day to day contract management and performance issues.
  - A critical role in assisting industry to interpret and follow regulations.
  - The boots on the ground at the contractors' plants.

## Is DCMA management a benefit, detriment or just "there"?

- Very helpful in resolving payment and compliance issues.
- From the industry perspective we look at DCMA as the highest potential for benefit.
- DCMA people are dedicated, but also constrained by the quality of contract documents.

## How might DCMA provide more value to both industry and the JPOs?

- DCMA staff needs to have in depth knowledge of the product(s) they are managing to understand how to appropriately use their levels of discretion.
- It would be beneficial for DCMA to communicate more information concerning changes in contracting regulations and issues related to compliance.

# Contracts

Are contracts the right size and type for competition?

Are contract awards fair?

- Generally, yes. We find that mature and highly professional contracting activities stand head and shoulders above others that are very specialized or have trouble attracting topnotch performers due to their geographic locations.

Are contracts administered effectively?

- Generally, no. Contract administrators seem overburdened.

Do contracts protect both the company and government?

- Generally, yes.

What might improve the process?

- Communications with industry before release of the RFP.
- Meaningful discussions with offerors in the competitive range to clarify, correct, and improve contractor understanding of the requirement vs. industry days where technical reps are muzzled by overly conservative KOs
- ***The above questions are contract specific and not subject to generic answers.***
- ***Our experience has been that the JPO has worked with industry in a way that would elicit positive responses to all of the above questions.***

# Statements of Work

## Are SOWs clear and specific?

- Not consistently
- Varies by agency
- Problems are generally due to less detailed or specific scopes
  - When organizations writing requirements work with contractors to provide as much detail as possible it allows industry to fully explore solutions.

## Are there inconsistencies?

- Often
- Always

## What improvements could be included in SOWs?

- Independent panel reviews to assess if the SOW clearly reflects the requirements and is consistent with other instructions/evaluation criteria.
- Release them for industry comment.
- ***All of the above questions are contract specific and not subject to generic answers.***
- ***Our experience has been that the JPO has worked with industry in a way that would elicit positive responses to all of the above questions.***

# Independent R&D Efforts in the CBD Sector

Does the size of the CB defense market enable industry to maintain a robust IR&D capability?

- Generally, no.
  - Market areas sparse.
  - ROI does not support investment.
- When risk is all on industry, there is a reluctance to invest regardless of size.
- No just need a better blend of DoD investment and industry incentive.

How does government S&T investment compare to industry IR&D?

*Informal comments so far indicate:*

*The US may constitute half the worlds CBD market – Large companies reinvest ~ 7-9% of sales in IR&D.*

- The Government spends far more on S&T than industry
  - By extension, most of the industry investment capital is acquired through work performed on other Government contracts.
- The Services CB RDTE have credentials and are National level treasures in CBD. They are becoming competitive with other commercial and academic sources. The smart thing is to fuze them all together for the best blend of S&T capability.