# DESIGNING A QASP TO EVALUATE CONTRACTOR PERFORMANCE

Prepared by Nicholas Kent For M2S2 Webinar 15 August 2018

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ESTRESSED CONCRET



#### 1. WHAT IS A "QASP"?

- Quality Assurance Surveillance Plan
  - Taken from EM 200-1-15:

"A document that sets forth the procedures and guidance that the Contracting Officer's Representative (COR) will use to evaluate the technical and quality performance of the Contractor in accordance with the terms and conditions of the Performance Work Statement."





#### 1. WHAT IS A "QASP"?

- i.e. The Contractor agreed to accomplish the scope of work described in the PWS and the Government intends to confirm the completeness and quality of the work using the criteria and steps detailed in the QASP.
- Remember that the Government *prefers* to pay for acceptable services rendered.
- Any portion of the work product determined to be of unacceptable quality will be rejected or re-performed at no expense to the Government.





### 2. WHY DO WE NEED A QASP?

- Accomplishments and discrepancies in the work product must be documented, as they will feed directly into performance discussions at the close of the contract.
- Performance as determined by the QASP will affect the Contractor's ratings following the completion of a project.
- Ratings will be entered into the Contractor Performance Assessment Reporting System (CPARS) for consideration on future contracting actions.





#### 3. WHEN SHOULD THE QASP BE WRITTEN?

 The QASP should be developed after the completion of the PWS so that Data Quality Objectives (DQOs), goals, and project requirements may be taken from the PWS and incorporated into the QASP.





# 4. WHEN SHOULD THE QASP BE SUBMITTED TO THE CONTRACTOR?

- The Contractor should receive the Final QASP prior to the start of fieldwork to ensure that they are aware of how their performance will be evaluated by the Government.
- Preparing a QASP after fieldwork has started is not only unfair to the Contractor but potentially leaves the project vulnerable to poor quality work or errors that won't be caught or addressed.





#### 5. WHO SHOULD DEVELOP THE QASP?

- On an MMRP project, the following PDT members must contribute to the QASP:
  - Ordnance and Explosives Safety Specialist (OESS)
  - Geophysicist
  - Chemist
  - Risk Assessor
  - COR
  - Project Manager





#### 5. WHO SHOULD DEVELOP THE QASP?

- The OESS and technical disciplines should provide input to the QASP, as they will be the ones reviewing Contractor submittals, fieldwork operations, and data quality, collection, and processing.
- The COR and PM should provide input into creating the list of project milestones and deliverables.
- CPARS rating criteria should be developed by the entire PDT.





- Definitions of project roles and responsibilities of participating Government (Army) representatives for an MMRP QASP.
  - OESS, Geophysicist, COR, and PM are required.
  - Archaeologist, Biologist, and other fields as needed depending on the scope of the project and deliverables.
  - Any PDT members that will be needed to verify the quality of the work product from the Contractor.





- Defines the key milestones, deliverables, and standards that will be assessed
  - Examples of project deliverables that could be used as milestones:
    - Final Project Management Plan
    - Final UFP-QAPP or AGC-QAPP
    - Instrument Verification Strip (IVS) implementation
    - Final Data Submittal
    - Target Selection Memorandum
    - Final Dig List Submittal
    - Final Munitions Constituents Data Submittal
    - Final Reports





- Defines the key milestones, deliverables, and standards that will be assessed
  - Deliverables and due dates for documents that need external review:
    - PMP
    - UFP-QAPP or AGC-QAPP
    - Accident Prevention Plan (APP)
    - Explosives Safety Submission (ESS)
    - IVS Report
    - Cultural and/or biological resources survey reports
    - Quality Control Plan
    - MMRP Community Relations Plan
    - Monthly Status Reports
    - Final Report





- Defines the key milestones, deliverables, and standards that will be assessed
  - Standards used to determine the quality of the work product
    - CPARs ratings of Excellent, Very Good, Satisfactory, Marginal, and Unsatisfactory all tied to Contractor performance
      - Examples of quantifiable criteria:
        - » Number of missed QA seeds
        - » Number of Corrective Actions required
        - » Number of failure criteria finds by OESSs
        - » Days of work delay





- Describes the surveillance methodology that will be employed by the Army in assessing the Contractor's performance
  - Milestones and deliverables with 100% inspection by onsite inspection or document review.
  - Periodic inspections such as QA Safety Inspection during fieldwork.
  - Customer feedback from project stakeholders, such as landowners, affected communities, state partners, and other agencies.





US ARMY CORPS OF ENGINEERS (USACE) MUNITIONS RESPONSE QUALITY ASSURANCE REPORT (QAR) FORM The proponent agency is CESO. See instructions on page 2. 2. USACE REPRESENTATIVE'S NAME  4. PROJECT NAME 5. PROJECT LOCATION 7. CONTRACTOR  a. District Program/Project Manager  c. Remedial Action District TM  c. Remedial Action District TM  1. RESPONSE DUE DATE (Based on type of nonconformance, IF REQUIRED) 12. TYPE OF ACTIVITY CONDUCTED (Include types of inspections/audits conducted, of 13. RESULTS AND OBSERVATIONS	CORT NO. (1,2,3, etc E ACTIVITY COMPI ITRACT NUMBER NUMBER Design Center Contractor	etc.)	T.O.J)						
2. USACE REPRESENTATIVE'S NAME     3. DATE     4. PROJECT NAME     5. PROJECT LOCATION     7. CONTRACTOR     8. CON     9. T.O.     10. DISTRIBUTED TO (check boxes and insert individual's name)     a. District Program/Project Manager     c. Remedial Action District TM     c. Remedial Action District TM     d. 1 11. RESPONSE DUE DATE (Based on type of nonconformance, IF REQUIRED) 12. TYPE OF ACTIVITY CONDUCTED (include types of inspections/audits conducted, of 13. RESULTS AND OBSERVATIONS	TRACT NUMBER NUMBER Design Center Contractor	6. WEATHER CONDI	ITIONS						
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13. RESULTS AND OBSERVATIONS									
	D . Maine	13. RESULTS AND OBSERVATIONS							
14. DEFICIENCY TYPE (select one) a. Not Applicable b. Critical c. Major d. Minor									
e. Other, Specify									
15. DATE 16. USACE REPRESENTATIVE'S SIGNATURE									
17. CONTRACTOR REPRESENTATIVE'S NAME			18. DATE						
19. CONTRACTOR REPRESENTATIVE'S SIGNATURE (indicating receipt of the QAR)									
20. The Contractor will provide the following information to the Contract Specialist Please contact the Contracting Officer's Representative (COR) or Project Manag	t by the "Response ger if you have any	Due" date above. questions.							
a. Contractor Response as to Cause and Actions Taken to Correct Current Condition and to Prevent Recurrence (cite applicable quality control procedures or changes in plans, procedures, or practices).									
b. Contractor Representative's Authentication (form must be signed before returning)									
1) Printed Name     (2) Title     (3)	b) Date Signed (4	) Signature							
c. Government Evaluation (acceptance, partial acceptance, etc.)									
d. Government Actions (reduced payment, cure notice, show cause, other)									
e. Close Out Name Title		Date (YYYY-MM-DD)	Signature						
(1) Contractor Notified									
2) USACE PDT Representative		-							
3) Contracting Officer or COR									

- Describes the surveillance documentation process and provides copies of the forms that the Army will use in evaluating the Contractor's performance
- Quality Assurance Reports (QARs) ENG Form 6048
- Technical QA Monitoring review of submittals by Government representatives, as requested by the COR.





- Outlines the quality assurance procedures to be employed by the Government during performance of the task order to confirm that the work is conducted utilizing proper procedures and in accordance with the approved work and safety plans
  - QA blind seeding program
  - Observations and spot checks in the field
  - QC seed log and QC documentation review
  - Meeting minutes from kickoff, TPP, and public meetings
  - Status reports (daily, monthly, milestones)
  - Data deliverables
  - Contractor Safety Records





- Defines the criteria to be used as CPARS ratings of Exceptional, Very Good, Satisfactory, Marginal, and Unsatisfactory performance for key milestones, deliverables, and standards.
  - The criteria specified under each of these categories should be prescriptive and clearly define discrete levels of performance among a number of categories.
  - The performance levels for each category are the "teeth" of the QASP and will be the main tool to ensure a quality work product from the Contractor.





- Outlines the Corrective Action process when a QA failure is encountered
  - Defines the documentation required.
    - ENG 6048, Corrective Action Report
  - Specifies turnaround times in business days for the Contractor to respond and submit a Correct Action Report (CAR) and Root Cause Analysis (RCA).
  - Specifies the communication pathway for the CAR so that the necessary people are able to review documents in a timely manner.





Table 2: Quality Assurance Survei	illance Plan Performance Metrics				
	Exceptional	Very Good	Satisfactory	Marginal	Unsatisfactory
PAR Category: Quality of Product or	r Service				
Performance Indicator: Document reviews	5				
Draft Plans and Reports	All contract milestone documents approved as submitted.	One or more documents or subplans were approved as submitted, but exceptions were noted. Resubmissions were not required.	One or more documents or subplans required revisions to be resubmitted for approval prior to proceeding. Resubmission of an entire document or subplan was not required.	One or more documents or subplans required revisions to be resubmitted for approval prior to proceeding. Resubmission of an entire document or subplan was required.	One or more documents or subplans did not comply with contract requirements, or one or more documents or subplans required more than one submission of the entire document or subplan prior to its approval.
Performance Indicator: Project execution					
Process Compliance	Zero Corrective Action Reports (CARs).	1-5 CARs for non-critical WP violations (no impact to overall cost and schedule resulting from noncompliance).	6 or more CARs for noncritical work plan violations (no impact to overall cost and schedule resulting from noncompliance).	> 1 CAR where noncompliance adversely impacted overall cost or schedule.	Repeated noncompliance with WP requirements resulted in cost overruns or repeated schedule extensions.
Quality Control (QC)	Zero quality assurance (QA) failures, 80% or more QC measures accepted, zero repetitive QC failures.	Zero QA failures, 80% or more QC measures accepted, one or more repetitive QC failures occurred.	Zero QA failures, less than 80% of QC measures accepted, or one or more repetitive QA failures occurred.	1-3 repetitive QA failures occurred.	> 3 repetitive QA failures occurred.
PAR Category: Schedule					
Performance Indicator: Timely completion	n of tasks				
Final Reports, project milestones, Task Order (T.O.) invoices	All document submittals and task order milestones and invoices complete and approved by T.O. date, project closed out/final invoice approved ahead of schedule.	Project closed out/final invoice approved ahead of schedule.	Project closed out/final invoice approved on T.O. date.	Project closed out/final invoice approved within 30 calendar days after T.O. date.	Project closed out/final invoice approved more than 30 calendar days after T.O. date.
Monthly status reports accurate			Yes		No
Performance Indicator: Impacts to schedu	le				
Impacts caused by Contractor or other causes identified in writing in a timely manner to apply acceptable corrective actions			Yes		No
Performance Indicator: Monthly Cost Rep	ort				
Monthly cost reports accurate			Yes		No
Performance Indicator: Impacts to cost	1		1	1	
Impacts caused by Contractor or other causes identified in writing in a timely manner to apply acceptable corrective actions			Yes		No
PAR Category: Business Relations					
Performance Indicator: Met contractual of	bligations				
Corrective actions taken were timely and effective (Refer to CAR's issued to Contractor)			Yes		No





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Monthly status reports accurate			aticfactory	complete -	No		
Performance Indicator: Impacts to schedule		• 15 UH50					
Impacts caused by Contractor or other causes identified in writing in a timely manner to apply acceptable corrective actions		failure	?		No		
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Monthly cost reports accurate		• INO	– QC okay	/ DUT QA _	No		
Performance Indicator: Impacts to cost Impacts caused by Contractor or other		-	r ,				
causes identified in writing in a timely manner to apply acceptable corrective actions		per	No				
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Performance Indicator: Met contractual opti	igations	laur	Ning	-			
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This is the top rating of CPARS metrics. Not impossible to achieve, but it takes the right Contractor with a good company culture and experienced approach

- Exceptional pretty much perfect. Any issues (if any) were QC related and the Government was not required to issue a CAR.
- Full confidence in the work product.





Table 2: Quality Assurance Surveillance Plan Performance Metrics

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Performance Indicator: Document reviews					
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The CPARS metrics of Very Good, Satisfactory, and Marginal require the most description, as they are nuanced. Most projects fall in this range.

- Very Good almost perfect but a few minor QA hiccups that the Contractor addressed.
- No impacts to schedule or cost.
- Full confidence in the work product.



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- Satisfactory more QA issues than Very Good but the Contractor was able to address all of them.
- No impacts to schedule or cost.
- Full confidence in the work product.





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- Marginal at least one significant issue that impacted the project's cost or schedule.
- Reduced confidence in the work product.
- Data Usability Assessment will be valuable.





Image: Part of the second s	ble 2: Quality Assurance Surveillance Plan Performance Metrics							
PAR Category: Quality of Product or Service Performance Indicator: Document reviews One or more documents or subplans One or more documents One or more documents One or more documents One or more documents One								
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Zero quality assurance (QA) failures, 80%         Zero QA failures, 80% or more QC         Zero QA failures, less than 80% of QC           Quality Control (QC)         or more QC measures accepted, zero         measures accepted, one or more repetitive         Zero QA failures, less than 80% of QC         1-3 repetitive QA failures occurred.         >3 repetitive QA failures occurred.	occurred.							

You don't want to end up here. Something is seriously wrong with the Contractor's approach to meet the requirements of the QAPP.

- Unsatisfactory repeated noncompliance with the QAPP that impacted the project's cost or schedule.
- Little to no confidence in the work product.
- Data Usability Assessment will be...difficult.





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Monthly status reports accurate			Yes		No
Performance Indicator: Impacts to schedu	le			1	•
Impacts caused by Contractor or other causes identified in writing in a timely manner to apply acceptable corrective actions			Yes		No
Performance Indicator: Monthly Cost Rep	ort				
Monthly cost reports accurate			Yes		No
Performance Indicator: Impacts to cost					
Impacts caused by Contractor or other causes identified in writing in a timely manner to apply acceptable corrective actions			Yes		No
PAR Category: Business Relations					
Performance Indicator: Met contractual of	bligations				
Corrective actions taken were timely and effective (Refer to CAR's issued to Contractor)			Yes		No





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This is a Quality Assurance procedure

- QA failures are identified on an ENG 6048 and submitted to the Contractor for their review.
- After acknowledging receipt of the ENG 6048, the Contractor has a set amount of time to prepare a Corrective Action Report (CAR) to determine the cause of the failure and propose measures to address the deficiency.



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Using the example of a missed QA seed, the Contractor would acknowledge receipt of the ENG 6048 and then respond to the failure with a CAR.

- The CAR would be due to the Government within a set amount of time as specified in the QASP.
- The Contractor's CAR should contain a Root Cause Analysis (RCA) of the failure, detailing how the failure occurred and what steps will be taken to prevent such a failure from occurring again on the remainder of the task order.





Once received by the Government, the Contractor's CAR would be reviewed by the PDT to ensure that the RCA fully captured how the failure occurred and that no potential causes were missed.

- In this example of a missed QA seed, the CAR would need to be reviewed and approved by:
  - Geophysicist
  - OESS
  - COR





Should the Contractor choose to continue work while the CAR is under review by the Government, they stand the risk of needing to re-perform any work done since the failure was identified.

• For example, if the proposed solution requires a new piece of equipment, any work done since the failure without that new piece of equipment won't meet the proposed solution in the CAR.





### 9. WHO IS RESPONSIBLE FOR THE CPARS RATING?

- The COR is responsible for entering a CPARS rating for the Contractor at the completion of the task order.
  - The PM and COR will have copies of all ENG 6048s submitted, covering the Contractor's performance in the field, as they receive all official copies for verification before milestone payments.
  - PDT will provide feedback regarding any quality issues with reviewed submittals.
  - PM and COR will provide insight on Contractor billing, schedule, and responsiveness.

When taken together, these inputs from the PDT members will help the COR to determine the correct CPARS ratings for each category in the QASP.





During review of a submitted lot for QA on an RI project, the Geophysicist and OESS determined that a QA blind seed was missed by the Contractor's field teams.

- Geophysicist verified that there was a missed seed by checking the log of QA seeds.
- OESS has ground truthed the seed and determined that it was not recovered by the Contractor.
- An ENG 6048 is sent to the Contractor's QC Manager, rejecting the lot submitted for QA approval.
- The ENG 6048 will have a request for a Root Cause Analysis and corresponding corrective actions for Government review. Due date is specified.



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- The Contractor reports back on-time with a Root Cause Analysis of the failure and proposes a solution to address the shortcoming.
  - The proposed fix improved operations and avoided the problem in future lots.
  - The proposed fix was at no additional cost to the Government and was implemented immediately with no impact to schedule.
- Assuming this was the only issue, how would you rate this Contractor's performance?

# Very Good





- That same Contractor was issued a second CAR due to equipment malfunctions that went unnoticed by the Contractor but were identified by the OESS from field observations and spot checks. The Contractor reported back on-time with a Root Cause Analysis of the failure and proposed a solution to address the shortcoming.
  - The proposed fix brought out replacement equipment but caused a two week delay for shipping, testing, and reworking an incomplete lot.
  - The proposed fix was at no additional cost to the Government.
  - The two week delay caused the pre-arranged evacuation of the nearby community to also be delayed.





 Assuming this was in addition to the missed QA seed, how would you rate this Contractor's performance?

## Very Good or Marginal?

 This is where clear definitions are important. The difference between Very Good and Marginal is immense for a Contractor and relies on your interpretation of a "schedule delay" in this case.





- An impact to the schedule may only be a delay in the final report being published or it may require a major effort to reschedule stakeholders and other tasks that were dependent on a pre-agreed upon schedule.
  - Make sure that the Government's expectations of the Contractor's performance are not only attainable but worded so that there is no chance for confusion.
    - i.e. "impact to schedule" could also be worded as "an impact to the completion date of more than two weeks".





#### **11. DESIGNING CATEGORY METRICS**

- Remember to scale your quantifiable metrics to fit your project. While examples have used discrete numbers, they are based on a rough percentage of total QA seeds.
- Challenging circumstances unique to the project should be taken into consideration when determining metrics.
  - Difficult terrain, sensor performance, remoteness, etc
- The Contractor's selected sensor technology may also need to be taken into account.
  - Analog has a lower probability of detection than DGM or AGC





#### **12. CLOSING**

- A well-written QASP will be your best tool if you encounter quality issues on a project, allowing you to point to stated processes to ensure standards are met.
- Therefore, invest a decent amount of time developing metrics that capture the goals of the project in measureable increments from Exceptional to Unsatisfactory.
- A poorly-written QASP could be filled with loop holes and/ or hard to parse language that will lead to confusion for both the Government and Contractors.





Thank you for your time and participation.

I'll now refer all questions to the EM-CX...

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