

STANDARD OPERATING PROCEDURES (SOP)
FOR
THE COAST GUARD'S TRAINING SYSTEM

Volume 2

ANALYSIS



[Coast Guard Performance Technology Center](#)
[Office of Workforce Performance, Training and Development](#)

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SECTION I: COAST GUARD HUMAN PERFORMANCE TECHNOLOGY

Human Performance Technology (HPT)

HPT refers to a group of methods, processes, and approaches used to improve human performance by solving or avoiding problems, and taking advantage of new technologies, methods and other opportunities. HPT is a systematic approach to improving human productivity, competence and capability. The goal of HPT is to identify and develop a set of interventions (or solutions) that solve or mitigate barriers to performance (i.e., lack of skill or knowledge, a flawed environment, ineffective reward or incentive systems, poor motivational structures, wrong people assigned to jobs, new or unique equipment or systems). Applied HPT results in solutions that improve a system in terms of achievement that the Coast Guard values.

The [Performance Technology Center's "Propwashes"](#) offer easy-to-understand examples of the value of applied HPT.

Why Does the Coast Guard Do Analysis?

HPT methodologies require that analysis outputs be based on data and validated using other high-level direction rather than on a person's individual desire. Analysis ensures that Coast Guard activities, outputs and goals complement each other to reduce or eliminate validated requirements or risk and that these requirements are directly linked to validated organizational goals and objectives, as mandated by the Coast Guard Chief of Staff's office. Since risk are the uncertainties that threaten the possibility of not achieving the human performance outcomes or objectives relevant to organizational missions and goals, analysis is one of the processes required in a credible HPT strategy.

Analysis is absolutely critical to producing cost-effective training which is why the Coast Guard has adopted the requirement that all training be subjected to a rigorous analysis prior to being funded in the formal training system. The Coast Guard enjoys the reputation of being one of the few military organizations that routinely conducts analysis before training. Analysis before solutions ensures we don't jump to training as the solution to every problem. Why isn't training the answer to every performance problem?

SECTION I: COAST GUARD HUMAN PERFORMANCE TECHNOLOGY (continued)

Why Does the Coast Guard Do Analysis? (continued)

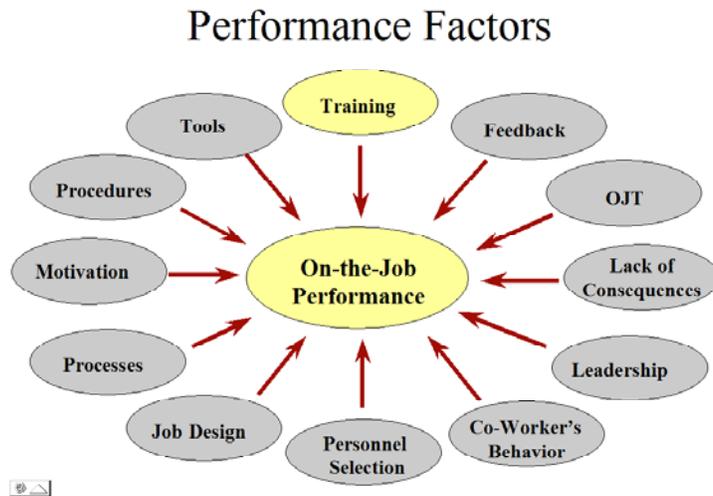
- Learning theory tells us people "forget" what they learned in training in a very short time (less than 2 weeks).
- Job aids don't forget; people do.
- Students do not memorize and retain information in the same way; that means at a critical point in performing a job, people may do step 3 before step 2 or forget to do step 2 all together.
- Students often acquire a good picture of what the world of work is like from training; however, back on the job is where most really learn how to perform.
- The resident training infrastructure is "there" and paid for, therefore, managers often perceive training as an easy fix for performance problems.
- Resident training is not standardized; although instructors may train to objectives, they still emphasize different areas.
- E-learning may provide standardization and job aids, but it is very expensive to develop and to maintain.

HPT methodologies help the Coast Guard to focus on what the performance problem really is, what influences are impacting performance, and what has to be changed in the "system" to improve productivity and efficiency. An HPT approach:

- supports an "analysis first" approach.
 - asks those analyzing Coast Guard performance problems to examine **all** organizational influences on performers.
 - Provides analysts with tools and processes for identifying a solution set that closes all gaps affecting human performance
 - helps the Coast Guard figure out the "right" performance supports for the best cost.
-

Human Performance Factors

There are many influences on human performance. The purpose of the G-WTT analysis requirement is to consider all of these factors for their applicability to the problem or opportunity being studied.



The Coast Guard has found the HPT approach a very useful one for solving complex problems experienced by individuals, teams of people and the organization as a whole. One reason HPT has been so successful is that it is a very versatile approach with foundations in leadership, organizational design, psychology and human behavior, instructional systems development, and total quality management.

What Role Does Analysis Play in CG Decision-Making?

Analysis is prudent for all programmatic decisions and is routinely conducted at Coast Guard Headquarters and throughout the organization. Although its form can vary, the Commandant and Chief of Staff have increasingly determined that conducting analysis before taking action can significantly reduce the risk of making bad decisions. Current directives require analysis managed by G-WT prior to the implementation or development of new training solutions.

How Does the Analysis SOP Relate to the Other SOPs?

The Coast Guard Training System's SOPs define terminology, provide procedures and guide work for both internal and contractor resources. The purpose of each of the SOPs is to provide default methodologies for much of the work within the Training System. The Analysis SOP contains the "how-to's" Coast Guard Performance Technologists and external analysts **shall follow** to ensure all Coast Guard members are using the same proven processes to obtain consistent and quality outputs.

How Does the Analysis SOP Relate to the Other SOPs?

The Analysis SOP has a critical relationship to the other Coast Guard Training System SOPs because it outlines the process for "starting off on the right foot." When program managers have a performance problem, they now have standardized processes to follow for requesting, developing or purchasing performance interventions (including training). As a secondary benefit, the Analysis SOP provides the same default methodology to prospective contractors, responsible for producing training-related materials or performance supports for the Coast Guard.

What About the Coast Guard HPT / ISD Handbook?

The [Coast Guard's HPT / ISD Handbook](#) is a great reference that goes into more detail than the SOP but does not specify a procedure that must be used. This SOP tells you the procedures that must be followed.

SECTION II: Management of the Coast Guard Analysis Process

Introduction

This section describes how analyses are requested, validated, prioritized, assigned and managed.

Purpose

The purpose of this section is to explain the process and list the procedures the Coast Guard uses to manage analysis projects that focus on human performance.

Target Audience

The prime target audience for this process is Headquarters Program Managers who shall use the enclosed procedures to request analyses from G-WTT.

- Headquarters and field units can use these procedures to facilitate program manager requests
 - Commercial contractors and other interested parties can use this section to gain an understanding of the management processes the Coast Guard uses to validate, prioritize and assign human performance analysis projects
-

Background

The Office of Training, Workforce Performance and Development (G-WTT) is responsible for managing Coast Guard human performance analysis projects. The Coast Guard Training & Education Advisory Committee ([CGTAC](#)) a cross-programmatic group of Program Managers, prioritizes human performance analysis projects. Prioritization allows the Coast Guard to focus on those projects that have significant impact on individual, unit and organizational performance. Additionally, prioritization enables the Coast Guard to effectively allocate its scarce resources.

Request for Analysis

All analysis projects managed by G-WTT are initiated via the Request for Analysis (RFA) form. The RFA process filters out analysis requests that do not align with the Commandant's Strategic Goals and Objectives.

When to submit RFAs:	
Condition:	Action:
Normal Request	Submit prior to first week of April.
Off Normal Request	Submit as required.

Program Manager Submits RFA

The RFA form asks program managers to categorize the presenting human performance problem as:

- an existing situation
- a new system or skill.

The form also addresses alignment issues (i.e. the approved program requirement(s) this system or policy is seeking to address and how the program requirements are related to helping achieve the Commandant's goals and objectives; it also captures hard project deadlines, resources available to assist analysts, and project funding issues).

Step:	Who:	Action:
1	Program Manager	Completes RFA (available via the G-WTT-1 web site or Appendix B).
2	Program Manager	IF
		THEN:
		PM requires help in filling out form
		Contact any member of G-WTT-1.
3	Program Manager	Emails form to G-WTT-1 team leader with copy to program manager's representative on CG TAC.

G-WTT-1 Validates RFA

G-WTT-1 validates the RFA by ensuring the analysis project meets the following criteria:

- project is directly related to the achievement of a validated program requirement
- program requirement is aligned with the achievement of the Coast Guard's goals and objectives
- adequate information exists to support an analysis

Step:	Who:	Action:
1	G-WTT-1 team leader	Assigns tracking number to RFA.
2	G-WTT-1 team leader	Assigns Performance Technologist (PT) to RFA.
3	G-WTT-1 PT	Reviews RFA and documentation. Prepares comments in RFA Summary Sheet (See Appendix C).
4	G-WTT-1 PT	Reviews Appendix A .

G-WTT-1 Validates RFA (continued)

Step:	Who:	Action:	
5	G-WTT-1 PT	IF	THEN:
		Analysis was already conducted prior to an RFA	Verifies alignment. Attaches documentation.
		Analysis has been conducted, but not adequately articulated	Articulates alignment using available documentation.
		Analysis has not been conducted	<ol style="list-style-type: none"> 1. Articulates alignment. 2. Recommends analysis type as required.
6	G-WTT-1 PT	IF	THEN:
		Activity being analyzed is directly linked to program requirement	Goes on to next step.
		Activity being analyzed is NOT directly linked to program requirement	Returns RFA to program manager with feedback.
		Program requirement is directly linked to the achievement of CG goals and objectives	Goes on to next step.
		Program requirement is NOT directly linked to the achievement of CG goals and objectives	Returns RFA to program manager with feedback.
7	G-WTT-1 PT	Uses matrix tool in Appendix D to complete summary sheet and make recommendation about type of analysis.	

CG TAC Prioritizes RFA

NOTE: Only RFA Summary Sheets (SSs) that describe validated requests for analysis will be prioritized.

Step:	Who:	Action:
1	CG TAC	Reviews RFA Summary Sheets (SSs).
2	CG TAC	Rank orders RFAs by priority.
3	G-WTT-1 & CG Analysis Sources	Determines number of projects G-WTT can support in a fiscal year through negotiations with Analysis Sources to identify the number (and specific project types) that can be assigned to each Analysis Source.
4	G-WTT-1	For lower priority RFAs, offers opportunity for program managers to fund contracts for analysis completion.

G-WTT-1 Assigns Projects

The Performance Technology Team Leader (G-WTT-1) is responsible for assigning analyses in the order listed on the G-WTT approved prioritization list. Assignments are based on existing workload, funding provided by the originator, time constraints, analysis source capability level and availability of contractors. Analysis projects will normally be assigned to one of the following:

- Performance Technology Team (G-WTT-1)
- Performance Technology Center – Yorktown, VA
- Performance Technology Staff – Petaluma, CA
- Commercial Contractors

Provide Quality Assurance

Analyses are conducted per [Section 3](#) of this SOP. The G-WTT-1 PT is assigned to the analysis for its duration and provides coordination with Program Managers.

Quality assurance will be carried out by administering the Client/Sponsor Project Feedback Form, [Appendix E](#) and the Analysis Validation Requirements Checklist, [Appendix F](#), as follows:

IF Analysis conducted by:	THEN Feedback and Validation forms will be administered by:
G-WTT-1 staff	G-WTT-1.
PTC Analysts	PTC Analysis Branch Chief.
TRAPET Analysis	Tpi Branch Chief .
Contracted Personnel	COTR at WTT-1, PTC or TRAPET as appropriate.
Auxiliary Personnel	G-WTT-1 or PTC as appropriate.

Provide Quality Assurance (continued)

Approval of the final product will be based on the logic, methodologies, and articulation of the analysis, not on the content or specific recommendations that it might include. Misalignments between the products produced and CG standards will be brought to the attention of the analyst for correction (or additional analysis, as required) prior to delivery of the final report.

Analysis Source Briefs Final Report

Following periodic updates throughout the project and G-WTT and Program Managers commentary on draft reports, the unit/contractor conducting the analysis will brief the final reports to client(s) and appropriate stakeholders. The G-WTT-1 PT will be present at the briefing to address issues and to begin coordination of next steps. Typically, this briefing signifies the end of the analysis project.

G-WTT-1 Develops Plan of Action & Milestones (POAM)

The G-WTT-1 PT will assist the Program Manager responsible for implementing recommendations. The G-WTT-1 PT will capture the actions required for implementation in a comprehensive Plan of Action and Milestones (POAM).

Step:	Who:	Action:	
1	G-WTT-1 PT	Drafts POAM. An example of a completed POAM is included in Appendix G .	
2	G-WTT-1 PT	Routes draft POAM to all interested parties for concurrence (Client, Analysis Source).	
3	G-WTT-1 PT	IF	THEN:
		Follow-on analysis required	Coordinates additional RFA's.
		Non-Instructional intervention required	Program Managers are responsible for implementing non-instructional interventions. (See Non-Instructional Intervention SOP (To Be Developed))

G-WTT-1 Develops Plan of Action & Milestones (POAM) (continued)

4	G-WTT-1 PT	IF	AND	THEN
		Training development is required	E-2 or E-3 Quals affected	Coordinates PME Qual changes & Enlisted Accession training
			Rating specific E-4 Quals affected	Coordinates with RFMC & "A" school changes
			Rating specific E-5 or E-6 Quals affected	Coordinates revisions for affected PQGs
			Impacts across all ratings	Coordinates PME Quals & course changes
			Other tasks required	Identifies "C" School requirements – see Resident Instruction SOP.
Alternative Development required	See Appendix H and the eLearning SOP			
5	WTT-1 PT	Identify resource requirements: <ul style="list-style-type: none"> • Do resources exist to meet new requirements? • Can/will program provide adequate funding? • Is a resource proposal required? 		

G-WTT-1 Evaluates Client Feedback

The G-WTT-1 PT will solicit feedback from Program Managers regarding their satisfaction with the analysis process and its final product, using the following tools:

- Client Satisfaction Survey
- Analysis Process Evaluation

These checklists are found in [Appendix E](#) and [Appendix F](#) respectively. The G-WTT-1 PT will be responsible for evaluating Program Manager feedback and recommending changes to the analysis process, if appropriate.

The G-WTT-1 PT will also collect appropriate documents in electronic media and archive in the G-WTT Library for later use and reference.

SECTION III: AUTHORIZED ANALYSIS METHODOLOGIES

Introduction	This section provides basic methodologies for conducting analyses. Variations from these must be approved by G-WTT-1.
Purpose	The purpose of each methodology is more fully explained in the subsections.
Target Audience	HPT practitioners (including contractors) are the primary target audience for this process. Coast Guard Training System personnel and Headquarters Program Managers should be familiar with the various methodologies.
Background	There are numerous types of analysis but this section attempts to identify the most common types that will be conducted in support of Coast Guard operations. The analysis types and levels addressed in this section are: 3.1 Needs Assessment (NA) 3.2 Front End Analysis (FEA) 3.3 Job Task Analysis (JTA) 3.4 Occupational Analysis (OA) 3.5 Cost Benefit Analysis Plan (CBAP) Regardless of what type of analysis is being conducted, the following HPT methodologies should be used: <ul style="list-style-type: none">▪ Systems approach▪ Analysis is only conducted based on validated needs▪ All analysis is data driven▪ All solutions are supported by findings

3.1 Needs Assessment

Introduction

This section defines needs assessment (NA) and provides a default methodology for conducting it. (Note: NA is a term often used interchangeably with performance analysis (PA)). NA is the systematic and data driven process of:

- Articulating desired outcomes based on given organizational or program capstone documents such as mission, vision, most probable scenarios, intelligence and criteria.
 - Comparing desired outcomes to actuals to determine gaps at the organizational or unit level. Analyzing gaps as to their scope, magnitude and priority for resolution based on the cost to close the gap as compared to the cost of ignoring it.
 - Identifying root causes for gaps & recommending potential solutions for closing those gaps.
 - Implementing the solutions.
 - Evaluating results.
-

Purpose

The purpose of a NA is to address significant organizational or mission performance problems, and to recommend cost effective and efficient solutions to address those problems.

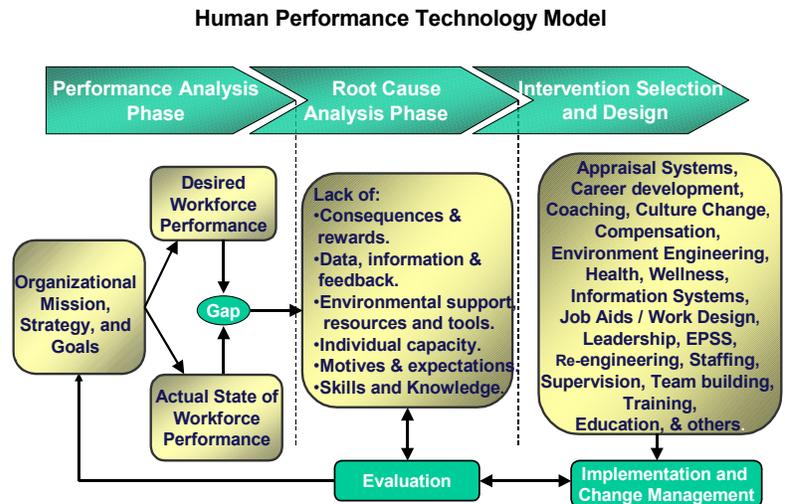
Target Audience

HPT practitioners (including contractors) are the target audience for this process.

Headquarters Program Managers and other interested parties can use this section to gain an understanding of the NA process.

Background

The Coast Guard uses a Human Performance Technology (HPT) approach to solve performance problems or realize opportunities.



Needs Assessment Phases

A typical NA includes the following phases:

- Performance Analysis
- Root Cause Analysis
- Intervention Selection
- Implementation
- Evaluation

NOTE: Although these phases appear linear, in actuality, there are no precise boundaries between them. As an NA project progresses, the data and results from the first activities may cause modifications in planned activities for the next phase. Performance Technologist (PT) and analysts shall keep the client informed of all modifications to the proposed activity schedule.

Performance Analysis Phase

The purpose of this phase is to work with the client to:

- Identify the problem or opportunity
- Ensure alignment with organizational goals, objectives and missions
- Identify desired and actual performance
- Define “the gap” between desired and actual performance in measurable terms

The steps in the Performance Analysis phase of the NA process are:

Step:	Who:	Action:
1	PT / Analyst & client	Aligns with client. See Appendix A and Appendix I .
2	PT / Analyst	Develops data collection plan. See Appendix J and Appendix K .
3	PT / Analyst	Collects data.
4	PT / Analyst	Conducts gap analysis: <ul style="list-style-type: none">• Identifies optimal performance• Identifies actual performance• Determines gaps between optimals and actuals
5	PT / Analyst	Prepares Performance Analysis report. See Appendix L .
6	PT / Analyst & Client	Briefs report findings and recommendations to client.

Root Cause Analysis Phase

The purpose of this phase is to work with the client to:

- Determine root causes for the gaps identified in the performance analysis phase
- Classify root causes as a lack of:
 - Skills and Knowledge
 - Motivation & Self Concept
 - Performance Capacity
 - Expectations & Feedback
 - Tools & Processes
 - Rewards, Recognition & Incentives

The steps in the Root Cause Analysis phase of the NA process are:

Step:	Who:	Action:
1	PT / Analyst	Reviews Performance Analysis report.
2	PT / Analyst	Develops data collection plan. See Appendix M .
3	PT / Analyst	Collects data. See Appendix M .
4	PT / Analyst	Classifies Root Causes. See Appendix M .
5	PT / Analyst	Prepares Root Cause Analysis report. See Appendix N .
6	PT / Analyst & Client	Briefs report findings and recommendations to client.

Intervention Selection and Design Phase

The purpose of this phase is to work with the client to:

- Develop cost effective and efficient interventions
- Prioritize interventions

The steps in the Intervention Selection and Design phase of the NA process are:

Step:	Who:	Action:
1	PT / Analyst	Reviews Root Cause Analysis report.
2	PT / Analyst	Develops interventions list and links interventions to Root Causes. See Appendix O .
3	PT / Analyst	Rank orders each intervention based on (Rationale, Value, Integration, Acceptability) See Appendix P .
4	PT / Analyst	Selects at least one intervention for each performance gap identified.
5	PT / Analyst	Prepares Intervention Selection report. See Appendix Q .
6	PT / Analyst & Client	Briefs report to client.

Implementation Phase

The purpose of this phase is to work with the client to:

- Develop a comprehensive Plan of Action and Milestones (POAM) to implement the interventions.

The steps in the Implementation phase of the NA process are:

Step:	Who:	Action:	
1	PT or Analyst	Drafts POAM. An example of a completed POAM is included in Appendix G .	
2	PT or Analyst	Routes draft POAM to all interested parties for concurrence (Client, Analysis Source)	
3	PT or Analyst	IF	THEN:
		Follow-on analysis required	Coordinates additional RFA's.
		Non-Instructional intervention required	Program Managers are responsible for implementing non-instructional interventions. (See Non-Instructional Intervention SOP)

Implementation Phase (continued)

4	G-WTT-1 PT	IF	AND	THEN
		Training development is required	E-2 or E-3 Quals affected	Coordinates PME Qual changes & Enlisted Accession training
			Rating specific E-4 Quals affected	Coordinates with RFMC & "A" school changes
			Rating specific E-5 or E-6 Quals affected	Coordinates revisions for affected PQGs
			Impacts across all ratings	Coordinates PME Quals & course changes
			Other tasks required	Identifies "C" School requirements – see Resident Instruction SOP.
			Alternative Development required	See Appendix H and the eLearning SOP

Evaluation Phase

The purpose of this phase is to work with the client to:

- Ensure recommendations are closing performance gaps

The steps in the Evaluation phase of the NA process are:

Step:	Who:	Action:
1	PT / Analyst & client	Develops evaluation plan.
2	PT / Analyst	Implements evaluation plan.

3.2 Front End Analysis

Introduction

FEA is a systematic process for:

- describing new performance.
- determining inhibitors to competent performance.
- recommending the skills and knowledge (S/K), environmental (ENV), motivational/incentive (M/I) and assignment and selection (A/S) interventions that must be put in place to help Coast Guard workers achieve optimum performance.

The Coast Guard uses SABA's Peak Performance System © FEA methodology to define jobs:

- associated with new acquisitions (i.e., ships, aircraft, and equipment procured to accomplish Coast Guard missions)
- that have never had an FEA.

The Coast Guard also uses FEA methodology to determine the cause of performance problems and to recommend interventions that will improve deficient performance.

Purpose

This SOP provides guidelines for conducting FEAs.

Target Audience for FEA

FEA Methodology is intended for use by Coast Guard PTs, contracted analysts, course developers, and e-learning developers.

FEA data are used by a variety of entities. These include Acquisition Managers, Program Managers, Rating Force Master Chiefs, Training Managers (G-WTT), contractors, training center course designers/developers.

3.2 Front End Analysis (continued)

Background

Why does the Coast Guard use FEA methodology?

How does this methodology fit into Human Performance Technology (HPT) methodologies - the approach the CG uses to manage its Training System?

How does this methodology fit into the Instructional Systems Design (ISD) model - the approach the Coast Guard uses to manage its training?

The answers to these questions follow and provide background for the Coast Guard's choice of methodologies.

Why use FEA Methodology?

- It focuses on the [performer](#) and his/her [performance](#) in the field.
 - It places more importance on [aligning](#) a project right from the start.
 - It provides [job aids](#) that contain detailed prescriptive and standardized instructions for how to conduct each aspect of an FEA as part of the FEA training. The job aids ensure the effort's outputs are replicable no matter who conducts the analysis.
 - It focuses on alignment with associated CG business goals and ensures [interventions](#) the FEA recommends are tied back to helping performers achieve the goals (i.e., missions).
 - It defines what an [accomplished performer](#) (AP) is - "best of the best" - and ties project success to early identification and observations/interviews of accomplished performers to gather data.
 - It places emphasis on selecting the type of FEA most applicable to a particular project.
 - Its outputs (particularly for [Skills/Knowledge](#) (S/K) recommendations) are at a task and task sub-step level of description, an absolutely essential level for designing and developing electronic performance support systems (EPSSs), job aids, training, and e-learning blended solutions.
 - Its outputs are useful for [assignment & selection](#) issues, work design, policy and technical manual updates.
 - It can be used by the CG to make "train/no train" decisions.
 - It emphasizes [job aid](#) development (performance supports that store information in the job aid) vice training development (intervention that stores information in the student's long term memory)
-

3.2 Front End Analysis (continued)

How Does FEA Fit into HPT Methodologies?

FEA is the first phase of a three-phase process called the Peak Performance System © (PPS). PPS & FEA are an HPT approach that defines a process for analyzing, designing, developing, implementing, and evaluating projects to most cost-effectively influence human performance that is of value to the CG's basic business goals (i.e., missions). As an HPT approach, it demands that the analyst consider all influences that affect performance. The graphic below shows the four categories that impact performance.



The analysis effort is focused on performance at the task and task sub-step level, and as such, is very useful for designing subsequent intervention recommendations. Its focus on observing and interviewing APs results in the capture of specific "tricks of the trade" that can, at a later date, be incorporated into job aids. As a systematic model, it defines a rigorous and standardized approach to gathering and analyzing data. When the problem is poor performance, it provides a rigorous and standardized method for performing "gap analysis" at the task level. It applies an equally rigorous and standardized approach to converting FEA data into S/K, ENV, M/I and A/S interventions for improving the worker's performance.

3.2 Front End Analysis (continued)

How Does FEA Fit into the ISD Model?

FEA is one of the critical efforts of the ISD's first phase, analysis. In following the [Instructional Systems Development \(ISD\)](#) model, the CG is committing to never design or develop training unless an analysis has first been conducted to determine if training is indeed the solution to a performance problem.

FEA Model is Helpful to Training Designers and Developers

FEA methodology is part of a larger Peak Performance System © model that is particularly useful to CG Training Centers because it provides Coast Guard staff and contractors with all they need to design and develop efficient and effective job aids and training.

Requirements for Conducting an FEA

The requirements for conducting an FEA are:

- training in Peak Performance System © Phase 1 (FEA) provided by certified trainer
 - FEA job aids and worksheets acquired as instructional materials during training
 - alignment and FEA Report Formats and FEA Checklist (samples included at end of this SOP)
-

Two Types of FEAs

The FEA process consists of two types of FEAs:

- **New Performance Planning (NPP)**
 - **Diagnostic**
-

NPP FEA

NPP FEA is used to analyze **new starts** - a new server such as the Windows 03 roll-out, different equipment and performance expectations for the Coastal Patrol Boat, or new policy such as using the Incident Command System (ICS) for responding to "all risks/all hazards." NPP is also used to analyze (describe) a job that has never had an FEA.

Diagnostic FEA

Diagnostic FEA is used to analyze why a group of people aren't performing as expected (e.g., CASREPS indicate boilers are being replaced too frequently). Diagnostic FEA is the appropriate FEA method to use when there is documented evidence or a perception that workers are not performing as required.

3.2 Front End Analysis (continued)

Parts of an FEA Effort

Whether NPP or diagnostic, all FEAs have the same components:

- Alignment Meeting
- Follow-up Alignment Report for Concurrent Clearance
- AP Selection
- NPP/Diagnostic FEA Data Collection Plan
- Data Collection Effort (on-site visits, GroupSystems Workshops, online surveys, etc.)
- Data Analysis to Produce S/K. ENV, M/I, A/S Interventions
- FEA Draft Report
- FEA Outbrief
- Follow-up Action Plan

Blended Approach

A large analysis project (i.e., the 87' Coastal Patrol Boat) may call for a "blended" approach, involving several FEAs. Some of those FEAs may be NPP some may be diagnostic. Decisions regarding which type of FEA to conduct are first addressed at the initial alignment meeting.

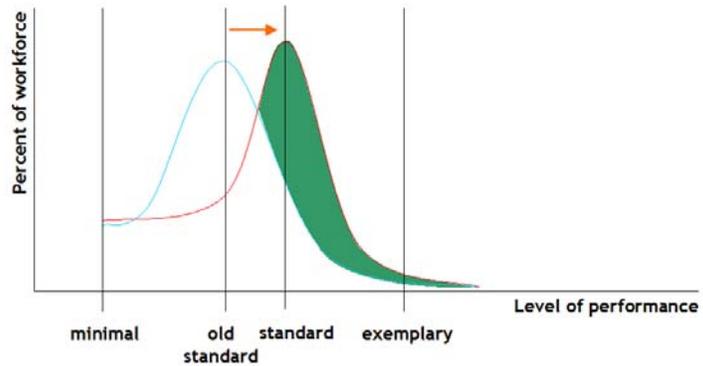
3.2 Front End Analysis (continued)

Accomplished Performers (APs)

[APs](#) are a critical component of FEA efforts. An AP is a person whose skill set and/or performance level serves as an example of the optimal or desired state. APs are exemplars, the people who have figured out how to do a task or job most effectively and efficiently. Their inclusion in this model is critical because it means analysts can observe and interview the "best of the best." From those observations, designers can subsequently incorporate the AP's "tricks of the trade" into the job aids they develop. What that means to Coast Guard performance is this: when middle-of-the-road performers use such job aids, their performance automatically moves closer to optimal performance; the green area of the graph below represents organization-wide improved performance:

Potential for Human Performance

Average workers can become more like stars



3.2 Front End Analysis (continued)

FEA Process Explained The following table lays out the, “Who, What, When, and Why’s” of the FEA process.

What:	Why:	When:	Who :
Alignment Meeting	To explore the request for an analysis in more detail and to obtain "alignment" on key issues: project scope, type of FEA, AP selection, funding, who will conduct the analysis, business goal affected, etc.	The first step in an analysis project; the first thing you do.	A decision-maker from the client's organization, key stakeholders, G-WTT rep, project manager and analysts
	NOTE: Depending on the project's complexity and issues, you may find it necessary to refine the alignment with your client several times.		
Follow-up Alignment Report	Serves as agreement for and formal documentation of how the project will be conducted for all parties to be satisfied with outcomes; similar to a contractual agreement.	Immediately following alignment meeting. Since the Alignment Report must be cleared through all attendees, it may take a week or more to finalize the report.	Project analysts produce the report and send it forward for electronic concurrent clearance. Analysts finalize the report based on feedback and send out a final copy when all issues are resolved and client gives word to go forward. NOTE: There is no formal project until alignment is reached.
AP Selection	This effort, usually concurrent with finalizing the alignment report, is necessary to determine the number of site visits and/or who will need to attend GroupSystems Workshops or be observed/ interviewed/ surveyed.	Concurrent with finalizing alignment meeting report/agreement	Client provides list of APs; analyst may need to provide consulting to ensure list contains APs vice subject matter experts.

What:	Why:	When:	Who :
NPP or Diagnostic Data Collection Plan	This effort is also concurrent with finalizing the alignment report and is necessary to identify the sites to be visited and people interviewed or the number and demographic samples for APs who need to attend a Group Systems Workshop	Concurrent with finalizing alignment meeting report/agreements.	Project analysts, with input from the client, draft a Data Collection Plan
Data Collection Effort	To gather the data, using the FEA job aids, needed to make findings and recommendations.	As soon as the alignment phase is completed.	Project analysts, APs, subject matter experts
Data Analysis Effort	To create the findings and recommendations of the FEA by using the job aids and algorithms from FEA training.	As soon as the data collection effort is over & data exists on major accomplishments (MAs) and their tasks	Project analysts NOTE: At this point, Project Analysts may use a Recommendations Conference (RC) to determine "doable" interventions. The RC allows clients to help shape recommendations. The output of a RC is "pre-buy-in" from the client.
FEA Report	To document the FEA project for the CG and client.	As soon as data analysis is complete	Project analysts and Project Manager
FEA Outbrief	To expand on the FEA report and ensure the client understands the findings and recommendations and the need to deploy interventions systematically.	As soon after the final report is completed as the outbrief can be coordinated	Project analysts provide outbrief, project manager attends, clients, G-WTT rep also attends.
Follow-up Action Plan	To ensure the recommendations are implemented and performance is changed. The FEA effort is only as good as the recommendations implemented.	Sometimes this event can be worked into the outbrief; most often, it is worked out as soon as possible after the outbrief	G-WTT rep and client; if PTC is tapped to design and develop interventions, they may also be part of the action plan. Other TRACENS reps may also be tapped to design and develop specific interventions.

3.2 Front End Analysis (continued)

Considerations for Conducting an FEA

- Ensure people who will conduct the FEA have received SABA Peak Performance System© Phase 1 (FEA) training from a certified instructor.
 - Ensure analysts follow the job aids without any deviations for each component of the FEA effort.
 - Ensure analysts use the sample reports in this SOP as templates for their alignment and FEA reports.
 - Throughout the project's lifecycle, use the [FEA Checklist](#) found at the end of this SOP for quality assurance purposes.
-

How to Conduct a Project Alignment Meeting

The steps involved in project alignment are:

- Task A: Document Request for Possible Project
- Task B: Prepare for Alignment Meeting.
- Task C: Conduct Alignment Meeting.
- Task D: Document Results of Alignment
- Coordinate with the Client to Identify APs
- Work up a Project Cost Estimate and Timelines
- Prepare a Draft Alignment Report
- Provide Draft to Project Manager for Review
- Task E: Prepare Alignment Report
- Task F: Provide Alignment Report to Client, Managers & Stakeholders electronically

NOTE 1: Identifying [subject matter experts](#) (SMEs) - people with job knowledge and expertise - is also an important component of alignment. SMEs are very helpful in developing an initial major accomplishments (MAs) and tasks list. Accomplished performers (APs) - the "best of the best" currently performing the job -- will validate that data at a later date in the analysis effort.

NOTE 2: Use the Project Alignment job aid provided in FEA Training. Do NOT deviate from the questions the job aid asks you to present to the client. Make sure you answer all questions and gather all material the job aid asks you to. The materials include an Appendix 3: Outline for alignment meeting that is very helpful in preparing for and conducting an alignment meeting.

3.2 Front End Analysis (continued)

How to Conduct a Project Alignment Meeting (continued)

The four tasks between Task D and E are not found in the FEA materials, but are required for CG FEAs.

It may take some time for the client to identify APs. For example, a Boarding Officer AP might be a person who has conducted the most and highest quality of boardings (e.g., as measured by convictions, fines imposed and/or feedback from Legal). You may have to work with the client to help differentiate between subject matter experts and accomplished performers. It is critical to the FEA effort that you identify genuine APs. You also need to work up a project cost estimate and timelines since these are crucial pieces of alignment. Review from the project manager ensures the project is on the right track for ultimate success.

There are some "do not's" associated with project alignment.

DO NOT:

- take on the project if the client is not willing to fund or cannot produce funding in a timely manner.
- agree to the project if the client insists that training is the only answer he or she will consider.
- go further with the project if the client is unable to identify the CG business goal the project will serve.
- accept the project if APs cannot be identified (see note below for new equipment / jobs).

NOTE: Sometimes the Coast Guard has no APs because the equipment or job is totally new to the organization. In those situations, APs may be identified from another organization, or SMEs, factory technicians or other experts may be utilized to determine the major accomplishments and tasks that make up a job.

3.2 Front End Analysis (continued)

How to Conduct an NPP FEA

The steps involved in conducting an NPP FEA are:

- Task A: Prepare to Conduct NPP FEA
- Task B: Determine Major Accomplishments (MAs)
- Task C: Collect Data on MAs
- Task D: Produce Task List and Preliminary Data for each MA.
- Task E: Obtain Additional Data on Tasks.
- Task F: Prioritize the Performance.
- Use Job Aid 15, Planning the Design of Interventions, to Determine Recommendations
- Consider if a Recommendations Conference (RC) with Client is Necessary to Determine if Recommendations are Doable
- Prepare FEA Report (use sample at link as template for reports)
- Submit FEA Report for Internal Review

Task G: Outbrief Report to Client.

The four tasks between Task F and G are not found in the FEA materials, but are required for CG FEAs. Job Aid 15 is very helpful in outlining the different recommendations you may need to consider. However, considering whether or not to conduct an RC with the client may eliminate the need to consult with several specialists. If the client cannot afford certain recommendations or foresees too many impediments to implement them, you will need to work with the client on "doable" solutions. You should not prepare your draft FEA Report until you have worked out a system of "doable" recommendations that will impact performance positively. Internal review will ensure the report is on track.

If a GroupSystems suite is available, you should consider coordinating with the Performance Technology Center to obtain the FEA applications they have worked up for that equipment.

3.2 Front End Analysis (continued)

How to Conduct an NPP FEA (continued)

There are some "do's" associated with NPP FEA.

DO ENSURE:

- MAs are expressed as nouns or noun phrases.
- tasks are expressed as action verbs with objects.
- analysts use job aids to interview APs.
- all questions found in the job aids are adequately answered.
- FEA final reports "look-and-feel" like the NPP reports found at the hyperlinks in this SOP.
- all questions and concerns the client may have are considered prior to the outbrief.
- task data are sorted through relevant algorithms to properly identify what tasks should be job aided (with introductory or extensive training) and which tasks should be trained to memory.

NOTE: The FEA methodology includes algorithms for making train/no train decisions and for determining under what circumstances job-aided tasks require introductory or extensive training. To ensure FEA outcomes are standardized, **it is critical that those conducting FEAs for the Coast Guard use the algorithms contained in the FEA materials to make training and job aid recommendations.**

FEA methodology utilizes a formula comprised of the following task data:

- Speed
 - Frequency
 - Complexity
 - Consequences of error
 - Probability of change
-

3.2 Front End Analysis (continued)

How to Conduct a Diagnostic FEA

The steps involved in Diagnostic FEA are:

- Task A: Prepare for Diagnostic FEA.
- Task B: Verify/Define General Problem
- Task C: Define Tasks of Deficient MAs
- Task D: Determine the Root Performance Deficiency (RPD)
- Task E: Pose Cause Hypotheses
- Task F: Plan Data Collection Methods
- Task G: Collect Evidence Bearing on Hypotheses
- Task H: Decide Probable Cause
- Task I: Specify Solution & Make Recommendations
- Prepare FEA Report
- Submit Draft Report for Internal Review
- Task J: Outbrief Report to Client

The two tasks between Tasks I and J are not included in the FEA materials. Experience has shown the project will be more successful if you adhere to these steps.

References

References specific to FEA and recommendations for additional reading are found at the end of the SOP.

Front End Analysis Quality Assurance Checklist

FEA Name:

Date:

#	Item	Meets	Does Not Meet	Comments
1	The report contains an Executive Summary with no jargon.			
2	The study matches the scope as described in the alignment section.			
3	The population targeted is relevant to the scope and intent of this study.			
4	The findings are related to human performance influences and/or deficiencies.			
5	The human performance depicted in the findings section is described at a level that is relevant and useful to the scope.			
6	The findings are supported by examples, facts, and/or data.			
7	The recommendations are fully supported by the findings.			
8	The recommendations address the issues identified in the scope of the study.			
9	The analysis followed the Coast Guard approved FEA process			
10	The report is understandable, i.e., context and background is established to provide meaning and cohesiveness.			
11	References, documentation and technical publications are described in detail.			
12	Surveys, questionnaires and other data gathering instruments (other than FEA worksheets) appear valid and the results are included as appendices for review.			

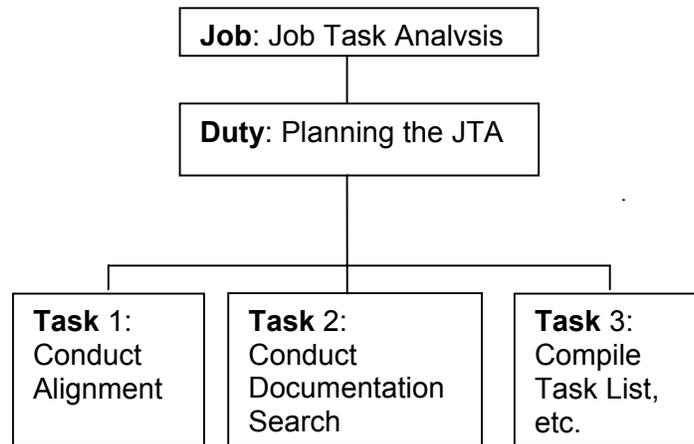
3.3 Job Task Analysis (JTA)

Introduction

JTA is another type of job analysis. It is a process used to break a job into duties and tasks.

- **Duties** are a job's major divisions of work. Each duty is made up of a group of tasks related to that duty.
- **Task** is a series of actions leading to a meaningful outcome. A task can be performed independently of other tasks and has a definite beginning and an end.

For example, the job, job task analysis, could be broken down into the following duties: planning the JTA, conducting JTA, analyzing results, outbriefing recommendations. Each duty could then be further broken down into the group of related tasks that make up that duty. Planning the JTA, for example, could be further broken down into the tasks conduct alignment, conduct documentation search, compile task list, etc.



The JTA process provides a methodology for:

- asking survey respondents if they do or do not perform specific tasks.
 - providing numerical values for survey respondents to rate the difficulty, importance and frequency for each task.
 - sorting the resulting survey data into task recommendations, i.e., train to memory, do not train, job aid, job-aid with training, tasks best trained on-the-job (OJT).
-

3.3 Job Task Analysis (JTA) (continued)

Purpose

This section of the SOP provides guidelines for conducting JTAs using a standardized methodology, tools and format.

Target Audience for JTA

- Headquarters Program Managers
 - Coast Guard PTs
 - Coast Guard Training System
 - Commercial contractors
-

Background

The Coast Guard conducts JTAs so that it can use the resulting data to make efficient and effective decisions regarding training. The end result of a JTA process is a final report that contains a list of tasks weighted, sorted, and filtered through the Difficulty, Importance and Frequency (DIF) model.

There are many ways of conducting JTAs, and there is also more than one way of analyzing the data. The Coast Guard uses the methodology that includes sorting survey results for individual tasks through the DIF model. From that exercise, analysts produce recommendations for each of the tasks. Using these results, program, training and TRACEN managers are better able to determine which tasks should be selected for formal training, job-aiding (with or without training) and which tasks are most appropriate for OJT.

3.3 Job Task Analysis (JTA) (continued)

What:	Why:	When:	Who:
<p>Planning the JTA</p>	<p>Although a JTA is not difficult, it takes a great deal of planning & coordination to be successful. This phase consists of the following steps:</p> <ul style="list-style-type: none"> • conduct alignment • search documentation • compile task list • validate task list 	<p>As is explained in the Analysis SOPs' Section II, G-WTT receives requests for analysis (RFAs) from the programs. Through the Training Advisory Council (TAC) which it chairs, G-WTT works with programs to prioritize any JTA projects for each FY. Those JTA projects are then assigned to CG analysts at TRACENs or a statement of work is developed for contracting out the JTA.</p>	<ul style="list-style-type: none"> • G-WTT • Program Managers • TRACENs/PTC • Commercial contractors

3.3 Job Task Analysis (JTA) (continued)

What:	Why:	When:	Who:
<p>Conducting the JTA Phase</p>	<p>Conducting the JTA phase includes the following tasks:</p> <ul style="list-style-type: none"> • design survey • implement survey 	<p>Conducting the JTA phase follows planning the JTA phase.</p>	<ul style="list-style-type: none"> • G-WTT rep, • Program Manager • TRACEN/PTC analysts • APs • TRACEN SMEs • technical experts • enlisted performance qualifications manager • survey respondents • vendor who hosts online surveys <p>(* Note: Contractor efforts involve the same personnel.)</p>

3.3 Job Task Analysis (JTA) (continued)

What:	Why:	When:	Who:
<p>Analyzing Survey Results Phase</p>	<p>This includes the work involved in actually analyzing survey results: converting data on "perform/don't perform" to numbers who perform that task & what percentage that represents of the population surveyed, averaging results of answers to difficulty, importance and frequency, converting demographic findings into easy-to-read charts, validating the data and preparing the report.</p>	<p>The analyzing survey results phase follows the conducting the JTA phase.</p>	<ul style="list-style-type: none"> • HQ staff • TRACEN/PTC analyst staff (or vendor staff) • subject matter experts.
<p>Outbriefing Results Phase</p>	<p>This phase involves coordinating with programs to report JTA findings and recommendations. It also includes development of a follow-up Action Plan consisting of action items, people/units responsible for those action items and milestones for delivery.</p>	<p>The outbriefing results phase follows the analyzing survey results phase.</p>	<ul style="list-style-type: none"> • HQ • TRACEN/PTC analysts or contractor • Program Managers • affected course managers

3.3 Job Task Analysis (JTA) (continued)

How to Conduct JTA

The Coast Guard has a specific process and set of procedures for conducting JTAs. The next section of this SOP contains that process and those procedures. All JTAs conducted for Coast Guard purposes shall follow these guidelines so that JTA outputs will be standardized throughout the organization.

Planning the JTA

Align with Client/Sponsor

- Conduct alignment, determine:
 - business goal affected by project
 - project Scope
 - target population

NOTE: When determining the target population to survey, ensure program and analysts are cognizant of the "right" survey respondent demographics. Picking the "right" sample or number of respondents to survey is critical to conducting a successful JTA. When possible, survey the entire target audience (e.g., survey all people performing as Safety Occupational and Health Coordinators (SOHCs)). In cases that involve large numbers, you may use a purposive sample. Regardless of the method used, the Program and Training Managers should approve of the sample population identified before administering the survey.

- funding
 - roles & responsibilities
-

Search Documentation

- Conduct documentation search; look for potential tasks found in:
 - Enlisted Performance Qualifications (EPQs)
 - curriculum outlines for curriculum objectives
 - technical publications
 - Commandant instructions
 - FEAs
 - OAs
-

Compile Task List

- Using documentation research results, compile prototype task list.
-

Validate Survey Prototype

- Coordinate subject matter and technical expert review of the prototype.
 - Revise task list to incorporate their changes.
-

Conducting the JTA

Design Survey

- Design Survey. If possible, use software that produces an online survey, however, print/paper copy is acceptable and sometimes a more appropriate delivery medium for some target populations.
- Identify survey demographics (sample items follow):
 - What is your pay grade?
 - What is your geographic region/to what District are you assigned?
 - What is your parent command?
 - What is your length of reserve time (if applicable)?
 - What type of unit are you assigned?
 - Is this your first assignment as a ___?
 - How long have you performed as a ___ at your current unit?
 - Are your ___ duties full time or collateral?
 - If collateral, does your supervisor provide sufficient time to complete those duties?
 - Have you attended training for this assignment?
 - If you have any questions regarding this survey, may we contact you?
 - Etc.

NOTE: These are **sample** demographic questions. Questions will differ from survey to survey depending on alignment issues and analyst decisions.

- Design "heart of the survey" items. Design survey so that **both the performer and his or her supervisor** are asked the same questions:
 - Include items that capture "perform/do not perform" data.
 - Design the survey so that supervisors who answer "do not perform" have a menu of choices that captures why the task is not being performed. Sample menu items might be:
 - Not performed here.
 - We have different equipment.
 - Someone else performs the task here.
 - We have different tools for doing the work here.
 - Include items that capture task **difficulty, importance and frequency (DIF)**.
 - Prepare cover letter/COMDTNOTE for alerting target population that survey is available online during a specific time period.

Implement Survey

- Alert vendor that survey should be posted online during specified time period.
-

Analyzing JTA Results

Analyze Survey Response Results

- Convert "perform/do not perform" data into number who perform & what percentage that number represents of target population (or into other conversion agreed upon during alignment). Based on the results for this item, consider deleting tasks (See first of job aids provided at the end of this section).
- Determine the mean for the total responses to each of the DIF items; round off the mean score to the nearest whole number.
- Use DIF results to make train, no train, job aid, job aid with training, and OJT recommendations. (See job aids at end of this section for amplifying information about DIF results and decisions).

OPTIONAL: The following data is **NOT** required by a Coast Guard JTA, but it can add value. There is an obvious relationship between the results of a JTA and delivery methods. For example, if DIF results indicate a task should be trained, program and training managers then need to consider if that result means training in a schoolhouse or delivering the Skills/Knowledge (S/K) intervention by some other means. For that reason, JTA analysts may want to take advantage of subject matter expert's availability to perform media selection on those tasks recommended for training, job aiding, or job aiding with training. If this step is taken, the final JTA report should include recommendations for alternative delivery options (i.e., electronic performance support system (EPSS), online job aid, online training) if applicable. Such recommendations should be considered very carefully. Not all tasks are good candidates for alternative delivery methods. On the other hand, the recommendation "train" for a task should not be considered as synonymous with resident training.

Using demographic information, determine whether responses received are representative of target population. If all responses on CG-wide surveys are from one geographic area, you need to resurvey non-respondents.

Analyzing JTA Results (continued)

Prepare JTA Report

- Compile JTA findings and recommendations into a report that includes:
 - Table of Contents
 - Executive Summary
 - Project Background
 - JTA Alignment
 - Demographic Findings (issues that impact Enlisted Performance Qualifications (EPQs), if applicable)
 - Analysis Findings
 - Recommendations
 - Media Selection Recommendations (Optional)
 - Appendices:
 - Job Task Analysis results and recommendations
 - By percent performed
 - Copy of actual survey used
-

Outbrief Recommendations

Outbrief JTA Results

- Coordinate time/date to outbrief results.
 - Outbrief results.
 - Coordinate with G-WTT and program concerning follow-up Action Plan containing work, to whom assigned and delivery milestones.
-

JTA Job Aids

The following are a series of job aids that help with different aspects of conducting a JTA:

Outcomes from "Perform/do not perform" Data

IF	THEN
70% of respondents are NOT performing the task,	Delete the task from the inventory.

Survey Explanation of How to Rate DIF for Tasks

Difficulty	Importance	Frequency
<ol style="list-style-type: none"> 1. Easy (anyone can do it) 2. Low difficulty 3. Moderately difficult 4. Very difficult 5. Extremely difficult 	<ol style="list-style-type: none"> 1. Minimal value 2. Low value 3. Moderate value 4. High value 5. Critical value 	<ol style="list-style-type: none"> 1. Infrequent/unpredictable (less than 2/year) 2. Semi-annual (on average of 2/year) 3. Monthly (on average 2-3/month) 4. Weekly 5. Daily

Definitions for Frequency, Difficulty, and Importance

CRITERIA	DEFINITION
Frequency of performance	Number of times the task is performed in a given time period.
Difficulty of performance	Mental activity and motor coordination required to perform the task.
Task importance	Potential for danger to self, others, operations, national security, equipment or the environment if task is not done properly.

How to Convert DIF Means to Train/No Train Recommendations

TRAINING DECISION TABLE	
IF	THEN
Importance is 3.04 or less	Do NOT consider for training.
Importance is 3.05 or more	Go on to difficulty.
Difficulty is 2.04 or less	Consider OJT.
Difficulty is 2.05 or more	Go to frequency.
Frequency is 3.04 or less	Job aid.
Frequency is 3.05 or more	Consider training.

Filter for Job Aided Tasks

IF	THEN
Difficulty is 3.00 or more	Train job aid.

TRAINING APPLICATIONS TABLE

IF THESE CRITERIA ARE TRUE	CHOOSE:
<p>The task:</p> <ul style="list-style-type: none"> • is difficult to perform • is difficult to learn • has little or no delay tolerance (the amount of time that can elapse between the stimulus for the action and the time the action begins) • has severe consequences for inadequate performance 	<p>Training</p>
<p>The task:</p> <ul style="list-style-type: none"> • is not used soon after training • is seldom used • requires moderate speed and high accuracy • involves many steps • is one for which the time between task start and end is long • requires recall of a lot of information • involves actions which have serious error consequences • has moderate or high delay tolerance 	<p>Job aids (may require training the job aid)</p> <p>NOTE: Job aids may require training. See Filter for Job-Aided Tasks.</p>

TRAINING APPLICATIONS TABLE (continued)

<p>The task:</p> <ul style="list-style-type: none"> • is simple to perform • is required of few performers • involves the environment during performance 	<p>OJT</p>
---	------------

Minimum Sample Size

Population Size	Sample Size	Percent Required
10	10	100
20	19	95
50	44	88
100	80	80
250	152	61
500	217	43
1,000	278	28
2,500	333	13
5,000	350	7
10,000	370	4

NOTE: The optimum sample size is the total group. When the total group cannot be surveyed either because of cost, time, or other constraints, a sample is drawn to represent the total. In the case of JTA, the target population is classified into separate groups (i. e., length of time in position, pay grade, geographical location, unit, or type of equipment used). At that point, a certain number is selected from each category in approximately the same proportions as the real population. The purpose of taking care in selecting an appropriate sample is to increase confidence that survey findings apply not just to the population surveyed, but to those who were not surveyed as well. Chapter 2, "Populations and Samples" of the USCG Workshop Survey Handbook, [The Design & Development of Survey Instruments](#), by Dr. James A. Pershing, PH.D. contains more information about [survey samples](#).

3.4 Occupational Analysis (OA)

Introduction

Occupational Analysis (OA) is a process that measures the job performance requirements of an occupation. OA takes a "snapshot" of an occupation's world of work at a particular point in time. As mandated by the [Enlisted Performance Qualifications Manual](#) (EPQM), COMDTINST 1414.8C, the Coast Guard follows a prescribed cycle for conducting OA for each of its enlisted ratings. It might also conduct OA to analyze a whole community's world of work (i.e., officers, enlisted and civilians performing jobs within the Marine Safety community). OA can also be used to examine non-traditional jobs such as Command Master Chief or the all-Reserve IV rating which has a mixture of enlisted, officer and civilians performing the rating's work.

The slogan for Coast Guard OA work is "Real Data for Real Decisions." That slogan underscores the need to use a rigorous and systematic process to obtain Coast Guard occupational data. The Coast Guard must have absolute confidence in the integrity of OA data because it is used to help determine:

- entry level and subsequent pay grade performance qualifications.
- appropriate training.
- proper staffing.

Purpose

This section provides guidelines for conducting OAs in a standardized format.

Target Audience for OA

Prime customers for OA data are the [Coast Guard's Rating Force Master Chiefs](#) (RFMCs). As prescribed by [EPQM](#), Enlisted Performance Qualifications Reviews panels use OA's outputs to assist them in determining the correct performance qualifications for each pay grade within that Rating. G-WTT Training Managers are also prime customers for OA since they manage the Enlisted Performance Qualifications Program. They validate the performance qualifications an Enlisted Performance Qualifications Review identifies. At the E-4 level, once G-WTT publishes official E-4 performance qualifications, course designers/developers, and contractors use that information to determine content for and to develop Coast Guard training curricula.

Program Managers may also request an OA (e.g. analyze occupations within the Marine Safety community).

3.4 Occupational Analysis (OA) (continued)

Background

The Coast Guard conducts OA because it has a recurring need to look at the jobs its people are performing to ensure that training and qualifications reflect the true needs of the field.

The [EPQM](#) mandates OA studies for the Coast Guard's enlisted ratings. Currently, the [Performance Technology Center](#) (PTC) conducts most OAs in the Coast Guard.

3.4 Occupational Analysis (OA) (continued)

OA Process Table

Accomplishment	Action:	When:	Who:
FY OA Slate Developed	EPQM mandates an OA every 3 years for its technical ratings (AMT, AST, AVT, EM, ET, GM & IT) and an OA every 4 years for its less-technical ratings and the nonrated workforce (OS, BM, DC, MST, MK, SK, PS, FS, HS, YN, IV, E-2 / E-3).	The Coast Guard's Training Advisory Council (TAC) , works with the PTC each summer to finalize an OA slate for the upcoming fiscal year.	<ul style="list-style-type: none"> • G-WTT • Program Managers • PTC
Alignment Agreement	Hold alignment meeting to explore the request for an OA in more detail and to obtain alignment on key issues such as subject matter expert (SME) identification.	As soon as a meeting can be coordinated after receiving formal tasking from G-WTT.	<ul style="list-style-type: none"> • RFMC • PTC staff • G-WTT rep
OA Survey Developed	The OA survey is developed (i.e., survey questions, demographics, survey design, posting survey online, etc.).	Post alignment (lasts approx 45-60 days).	<ul style="list-style-type: none"> • PTC staff • RFMC • SMEs
OA Survey Administered	The OA survey is administered - there may be additional work in this phase if analysts must involve HQ program managers in devising strategies to increase survey response rates	Follows survey development (minimum six (6) weeks).	<ul style="list-style-type: none"> • PTC staff • vendor hosting survey • RFMC • Possibly Training Managers or Program Managers

3.4 Occupational Analysis (OA) (continued)

Accomplishment	Action:	When:	Who:
Survey Analyzed	Analyze the data obtained from survey responses (i.e., return rates, performance qualification recommendations, etc.).	Follows survey administration (Approx four (4) weeks).	PTC staff
Report Prepared	OA report prepared and routed for signature.	Follows analysis of responses (Approx. four (4) weeks).	PTC staff
OA Findings Reported	Report OA results and consult in the Enlisted Performance Qualifications Review as prescribed by EPQM .	Analysts coordinate the report out phase following completion of report (1 day report-out/4 day Enlisted Performance Qualifications Review)	<ul style="list-style-type: none"> • PTC staff • RFMC • G-WTT rep • Enlisted Performance Qualifications Review Panel Members

3.4 Occupational Analysis (OA) (continued)

How to Conduct OA

The Coast Guard has a specific process and set of procedures for conducting OA. The next section of this SOP contains that process and those procedures. All OAs conducted for Coast Guard purposes shall follow these guidelines in order to standardize OA outputs throughout the organization.

Alignment

Step	Action
<p>Start Project</p>	<ol style="list-style-type: none"> 1. Initiate OA Project due to tasking from G-WTT per the Training Advisory Council. 2. Hold alignment meeting with Rating Force Master Chief. 3. Identify Subject Matter Experts for task validation.

Survey Development Phase

<p>Prepare Starter Package of Survey Questions</p>	<ol style="list-style-type: none"> 1. Gather task data from the following sources: <ul style="list-style-type: none"> • Previous OA Survey • Front End Analysis • Job Task Analysis • Enlisted Performance Qualifications (EPQs) • O*Net (Department of Labor) • V-Tecs (Vocational Technical Consortium of States) 2. Develop prototype OA Duty and Task List: <ul style="list-style-type: none"> • Duty is a broad descriptor under which tasks are organized. Duty areas consist of clusters of tasks. • Tasks are specific actions. These actions represent a single unit of measurable work and have a definite beginning and end.
<p>Validate Starter Package Survey Questions with SMEs</p>	<ol style="list-style-type: none"> 1. Validate survey questions with SMEs. (NOTE: This is a validation of duties and tasks only. Do not have SMEs validate other parts of survey). 2. Consolidate SME input into single survey.

Survey Development Phase (continued)

<p>Submit Survey Questions to RFMC for Final Approval</p>	<ol style="list-style-type: none"> 1. Send RFMC Microsoft Word file of SME validated duties and tasks. 2. Allow one-week turnaround. 3. Incorporate recommended changes made by the RFMC.
<p>Design Survey</p>	<p>Develop "initial" Occupational Survey consisting of the following sections:</p> <ol style="list-style-type: none"> a. Demographics <ol style="list-style-type: none"> 1. Time at present unit 2. Current duty status 3. Current pay grade 4. Senior person aboard unit? 5. Only person aboard unit? 6. Number personnel supervised 7. Hours worked per week 8. Hours watch per week 9. Computer usage per day 10. First assignment in rating? 11. Schools completed 12. Enlisted Qualification Codes held 13. Type unit currently assigned to 14. Type units assigned to in past b. Duty and Task inventory (from SME and RFMC validation)...also include general Duty/Task areas applicable to all surveys (i.e., Administration, Training, Supply and Fiscal, Law Enforcement, Military Requirements, and Collateral Duties). <p>This section is the heart of the survey and will contain provisions for determining which tasks the individual performs and the relative time spent performing each task. It may also include other task-related variables such as Frequency, Difficulty, Importance, Criticality, When Needed, and others as required by the Coast Guard.</p>

Design Survey (continued)	<ol style="list-style-type: none"> 1. Additional write-in tasks 2. Tools and Equipment Inventory 3. Software Inventory 4. Job Satisfaction (35 standardized questions) 5. Career Intentions (3 standardized questions) 6. Problems completing survey on-line? 7. Hours to complete survey <p>Survey Design Truths</p> <ul style="list-style-type: none"> • Hold constant the Demographics, Job Satisfaction, and Career Intention questions. • Categorize task statements according to the current Enlisted Performance Qualifications. • Ensure all task statements in current EPQs are included for validation.
Provide Quality Assurance	<ol style="list-style-type: none"> 1. Have survey reviewed by another OA analyst before sending to contractor for posting.
Post On-line	<ol style="list-style-type: none"> 1. Send survey to contractor for posting on-line.
Review Survey After Posting On-line	<ol style="list-style-type: none"> 1. All OA analysts review survey after posting on-line to server but before distribution to target population.

Survey Administration Phase

Administer Survey	<ol style="list-style-type: none"> 1. Make survey available to respondents for a minimum of 6 weeks. 2. Monitor survey results on a weekly basis to ensure adequate coverage of unit types and pay grades.
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Survey Analysis Phase

Analyze Survey Results	<p>Analyze survey results for each of the following categories using SPSS software.</p> <ol style="list-style-type: none">1. Return Rate Summary2. Performance Qualification recommendations3. Sea/Shore Tasks Active Duty Percent by pay grade4. Performance Qualification Factor5. Relative Manhours by Major Accomplishment6. Equipment/Software Analysis7. Current Duty Status8. Time at Present Unit9. Current Pay grade10. Senior Rating Aboard Unit11. Only Rating Aboard Unit12. Number People Supervised13. Hours Worked Per Week Shore14. Hours Watch Per Week Shore15. Hours Worked Per Week Sea16. Hours Watch Per Week Sea17. Hours Using Computer Workstation18. First Assignment in Rating19. Schools Completed20. Units Assigned To21. Qualification Codes Held22. Job Satisfaction Analysis23. Career Intention Analysis24. Reserve Task Percent by Pay grade <p>Maintain all raw data from the survey in an SPSS file.</p>
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Report Preparation Phase

Prepare for Outbrief	<ol style="list-style-type: none">a. Use template from last OA report to present results obtained from Survey Analysis Phase.b. Route report through PTC chain of command for signature.
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Report Out Phase

Outbrief Survey Results	<ol style="list-style-type: none">1. Schedule report out meeting with RFMC and G-WTT.2. Present overview of report to RFMC, G-WTT and interested Program Managers.3. Participate in Enlisted Performance Qualifications Review as consultant to report and findings.4. Develop EPQs as prescribed by EPQM.
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3.5 Costs Benefits Analysis Plan (CBAP)

Introduction	This section defines the CBAP and provides a methodology for its development.
Purpose	A CBAP always follows analysis work that has uncovered a skill / knowledge gap impacting the accomplishment of workers. It serves as a pre-decisional document and contains several possible performance improvement delivery options. The plan also lays out "quick-look" costs, advantages and disadvantages for each option and provides the data for managers to choose the most effective and efficient solutions to eliminate skill and knowledge gaps.
Target Audience	<ul style="list-style-type: none">• Headquarters Program Managers• Coast Guard PTs• Coast Guard Training System• Commercial contractors
Background	<p>A CBAP must be developed BEFORE the organization will resource a project for designing and developing new resident training or "blended solutions" (i.e., electronic performance support systems (EPSSs), online job aids, web-based tools and training, etc.)</p> <p>Resident training may solve a skill or knowledge (S/K) gap. However, a "blended" solution of online training and performance supports (e.g.s, online job aids, electronic performance support systems that contain links to all applicable references, even a PDA) may offer a much greater chance of positively impacting performance than any single solution. For these reasons, Coast Guard managers need a plan that lays out different S/K delivery options, provides the cost of each option, and describes an option's benefits and its downsides. Using the CBAP, managers can consider what is doable and make decisions based on current data.</p>

3.5 Costs Benefits Analysis Plan (CBAP)

Requirements for Conducting CBAPs

The requirements for conducting a Coast Guard CBAP are:

- The CBAP's options are based on an officially sanctioned current analysis ([Front End Analysis / JTA / Needs Assessment](#)).
- The "train" tasks have been sorted through a [media selection model](#) prior to drafting the CBAP.

NOTE: CBAP authors can assume tasks identified as candidates for job aids also make good candidates for EPSSs or online job aids.

- Each CBAP should discuss several options (usually 3 or more).
- The CBAP's authors should have conducted an off-the-shelf (OTS) search to determine if DoD or other agencies have resident training or "blended solutions" available that can be included as options in the CBAP. This search must be coordinated with the staff of the [Performance Technology Center](#). If the CBAP includes an untried technology, the plan should include documentation of discussions with TISCOM and OSC Martinsburg regarding the feasibility of using this technology in the Coast Guard.
- Each CBAP should as a minimum include the kind of cost data required by the Coast Guard's Resource Proposal (RP) process.

NOTE: CBAPs have a short "shelf-life." The data they provide is a "quick-look" at costs, advantages and disadvantages at a specific point in time. Given the rate of technology change, do **NOT** make decisions based on information from a CBAP over a year old.

What:	Why:	When:	Who:
Task to Develop a CBAP	To provide data to program managers allowing them to decide the most effective and efficient solution to eliminate or mitigate skill and knowledge gaps.	Follows out briefing the results of an FEA or JTA or NA.	<ul style="list-style-type: none"> HQ/TRACEN/PTC PTs and designer/ developer staff Contractors

How to conduct CBAPs:

Steps:	Actions:
1	Review the skill / knowledge gaps in the outputs of an FEA, JTA or NA.
2	Identify the constraints with the client (normally the HQ program manager) e.g.: <ul style="list-style-type: none"> Resources available to close gaps Existing program sponsored efforts to address situation (these may take some detective work to uncover). "Cultural" barriers to implementation.
2	Sort tasks identified as train, train to memory or job aid with extensive training through a media selection process. NOTE: It can be assumed that tasks that should be job-aided or job-aided with extensive training are good candidates for online job aids and for EPSSs or a "blended" solution.
3	Conduct an off-the-shelf search to identify if there are any courses or products developed by Coast Guard, DoD or other agencies that should be considered as one of the options. Coordinate this search with the staff of the PTC.
4	Develop several (normally at least 3) options for possible ways to deliver the S/K intervention(s). NOTE: Resident training will most likely be one of the options.
5	Identify costs for each option based on "today's" market prices. <ul style="list-style-type: none"> One time or recurring? Staffing costs? Creation and maintenance of materials and equipment. Etc.
6	Identify advantages and disadvantages for each option including the time to produce and field.
7	Capture the data compiled in steps 2-6 in a CBAP.
8	Circulate CBAP through internal approval chain.
9	Coordinate outbriefs date/time (outbrief may be done via phoncon, VTC, or means other than travel).
10	Outbrief CBAP.
11 (optional)	May be contacted by training and program managers to discuss feasibility of developing selected option.

SECTION IV: GLOSSARY

Term:	Meaning:
Ability	Latent capacity of a person to perform a job task; it includes knowledge, skills, attitude and application in complex and novel circumstances; abilities are developed over time through practice and feedback.
Accomplished Performer (AP)	Worker who routinely produces accomplishments at or above standard. Often intended <u>to mean the best performer now on the job</u> ; a person whose skill or performance exemplifies the optimal or desired state; this is the person who does the job best; this is NOT the same as an SME .
Accomplishment	An output of behavior that has direct value to the goals of the job and the organization (e.g., equipment operational).
Accomplishments	The outcomes or products of a worker that are valuable to his/her organization. For example: Officer Evaluation Reports ready for approving signatures; decision on number of enlisted personnel above the advancement cutoff. See outputs .
Action Plan	A plan that identifies who will implement recommended solutions/interventions from an analysis; developed by G-WTT Performance Consultants in conjunction with client and analysis source during, or immediately following analysis outbriefs.
Actuals	The current skills, knowledge, perspectives, and environment of individuals in an organization; specifics about what people do now.
Adaptation	Tailoring existing training to better fit current needs in terms of content and/or design.
ADDIE model	An acronym developed to capture the five phases of the ISD model: analysis, design, development, implementation and evaluation.
Alignment	First phase of the Peak Performance System Phase 1 (Analysis) process. Involves interpretation of request from a potential client, gathering of information regarding a project, deciding on type of analysis relevant to the project, and specification of Initial Goal of the project.

Term:	Meaning:
Alternative Delivery	Delivery methods for skills / knowledge other than traditional instructor-led courses.
Analysis	Break down into component parts. Work done prior to the design of a project. Diagnostic FEA, Planning FEA, Assessment of exiting training, or Maintenance of existing training are all types of analysis.
Analyst	Person who performs Coast Guard range of analyses, normally a CG Performance Technologist or Certified Performance Technologist .
Assessment	Investigation of existing training to determine if should be adopted as is or adapted to current needs, or rejected outright.
Assignment & Selection (A/S) Intervention	An intervention to improve performance that involves matching “right” people to specific jobs.
Attitude	The choices we make; generally speaking, people choose to do things when they value the results and have confidence in their capacity to perform the task.
Audience Analysis	Also known as Learner Analysis ; study that describes the nature of the worker or students; the determination of pertinent characteristics of members of the target population; often includes prior knowledge and attitudes toward the content to be taught, as well as attitudes toward the organization and work environment.
Barriers	Individual and organizational factors that constrain the success of people and organizations; for example, executives lack keyboard skills, so they avoid email; barriers influence the proposed solution set.
Behavior	The action a person takes to produce an accomplishment; some behaviors are covert (you can't see them) like decision-making and applying rules – others are overt (you can see them); e.g.'s, welding a specific piece of equipment, using Direct Access to check a billet's history, etc.
Benchmark	Comparative standard for evaluating accomplishments against known exemplars of excellence; a benchmark is a targeted goal that is beyond current capabilities, but for which the organization is striving.

Term:	Meaning:
Blended solutions	A mixture of training and performance supports, i.e., Web Based Training, Personal Digital Assistant for data collection, Electronic Performance Support System containing links to pubs and job aids)
Cause Analysis	Study to determine what gets in the way of individual and organizational performance and why; cause analysis should result in recommended actions that address specific categories of causes, such as: motivational, environmental, skills/knowledge, and equipment; the idea is that there is a different way to address problems that have different causes; cause analysis helps ensure that the solution will solve the problem; see Root Cause Analysis .
Causes	Influences that impede individual and organizational performance; there are four kinds of causes: <ul style="list-style-type: none"> (1) Absence of skills and knowledge or information (2) Weak motivation (3) Improper environment (4) Flawed incentives (5) Wrong assignment & selection <p>The causes of undesirable performance should be uncovered during analysis; the causes define the nature of the proposed solution set (See Barriers and Drivers).</p>
Certified Performance Technologist (CPT)	A person possessing the ISPI CPT certification .
Change Management	A systematic process of taking into account the global conditions affecting an organization, as well as specific conditions in the organization; the change management methodology examines the current environment with respect to infrastructure, personnel, skills and knowledge, people/machine interfaces and incentive systems.
Consequences of error	The penalty for non-standard performance.
Constraint	Givens of a project that may represent a barrier to ideal design unless minimized.
Cost-Benefit Analysis	An examination of expected or perceived losses in relation to expected or perceived gains, typically conducted when contemplating new actions or considering new interventions.

Cost Benefit Analysis Plan (CBAP)	A pre-decisional plan and presentation that may follow an FEA or JTA . It presents three or more possible deliveries for a training program or performance support, costs out each, and may make recommendations concerning which option has the best return on investment (ROI). The CBAP should be developed and one option approved before any training or performance support development begins. CBAPs are NOT mandatory. They are generally requested when CG program and training managers want to consider the cost of resident vice alternative delivery training or when a particular skills and knowledge intervention is desirable but is perceived as very costly and perhaps difficult to maintain on the CG's standard operating image. Its purpose is to provide managers with "quick-look" data for making subsequent training and/or performance support development decisions (Formerly called an Instructional Plan (IP)).
Criticality	Essentiality of a task to performance on the job.
Demographics	Characteristics of the population (i.e., age, gender, grade, rating, geographic location, unit type, time in service, time in job, etc.) used by the analyst to make assertions about survey data; vital statistics related to survey participants.
Diagnostic Front-End Analysis (FEA)	A problem-solving set of analysis procedures used in projects when existing performers are not producing present accomplishments satisfactorily; the procedures finds the deficiency (gap) in performance, as well as the cause and solution.
Diagnostics	The practice of troubleshooting problems for causes.
Difficulty	How difficult it is to perform a specific task and/or how long it takes for a student to learn a specific task (criteria: 10 or more steps, fine judgment to tell things apart, application of rule with many exceptions, precise hand-eye coordination, fine-grained muscular movements, several decisions to be made, how long it takes).
Difficulty-Importance-Frequency (DIF) model	A filter used to determine whether a task should be trained, job-aided, or learned on-the-job.
Drivers	Levers in an organization and person that influence performance; there are many drivers: for example, how much a person knows, how much that person values the work, the person's confidence, the available tools, and an organization's culture, policies, and incentives; the drivers influence the nature of the solution set that is proposed (See Barriers and Causes).

Duty	Major divisions of work in a job, comprised of a group of related tasks; a broad descriptor under which tasks are organized. Duty areas consist of clusters of tasks.
Duty and Task Inventories	A list of all duties and tasks associated with a Coast Guard Rating; validated by the SME at the beginning of the OA process.
Electronic Performance Support System (EPSS)	Electronic job aids designed to help a worker perform a task or a set of tasks; they can either be built into the equipment's operating system or they can be provided as a stand-alone software application or a handheld data assistant.
Ends	The results, impacts, or accomplishments we get from applying the means; they are what is achieved
Enlisted Performance Qualifications (EPQs)	Observable and measurable core competencies that enlisted personnel in each rating must perform before advancement to the next pay grade.
Enlisted Performance Qualifications Review	A yearly review by the Rating Force Master Chief to update the rating's EPQs; a more formal review coached by G-WTT is done every 3 or 4 years based on the results of an occupational analysis.
Enlisted Qualification Codes	Codes that supplement the enlisted rating structure by identifying special skills and knowledge that require a more specific identification than that provided by rates and ratings.
Environment	The environment that surrounds and affects performance is made up of policies, procedures, processes, available time, physical space, tools, equipment, work design, etc.
Environmental Interventions (ENV)	Those recommendations that seek to close gaps in the performer's current environment (e.g., better work design, easily accessed standardized workflow procedures, etc.).
Evaluation	The process used to measure the value and effectiveness of a learning program
Extant Data Analysis	Analysis of records and files collected by an organization reflecting actual employee performance and its results (for example, attendance figures, help desk tapes, callbacks for repair, employee evaluations).

Feedback	Feedback consists of information about the nature of an action and its result, in relation to some criterion of acceptability. It is never-ending input of one sort or another.
Formative Evaluation	Evaluation designed to collect data and information that is used to improve a program, product, or instruction; conducted while the program is still being developed.
Frequency	How often the task is performed on the job.
Front End Analysis (FEA)	Work done prior to the design of a project. Two types: Diagnostic for existing performance problems and New Performance Planning (NPP) for new starts. Term coined in book An Ounce of Analysis by J. H. Harless, 1970. A level of performance analysis that is a subset of program level analyses. FEAs are limited to specific individual jobs, specialties, or activities, and they are geared toward individual performance. If using this methodology for a group or unit with varied jobs, the PT will more likely conduct a series of FEAs, one for each of the individual jobs. The FEA report includes a set of required skills that are used in the follow-on design of training. The report also includes other recommended non-training interventions.
Goal	In context of alignment, a description of the initial intention of a project in terms of the type of analysis to be performed (e.g., to conduct an analysis for the deficient situation: "Performance appraisals are not being produced satisfactorily.")
Goal Analysis	A determination of what it is you want learners to be able to do (and know) when they have completed a course of instruction or used another intervention.
Human Performance Technology (HPT)	A careful and systematic approach to solving problems – or realizing opportunities – related to the performance of people, groups, or organizations. It results in solutions that improve a system in terms of achievement that the organization values.
Incentives	Incentives are provided by an organization to influence people's behavior. Incentives ensure or reward desired performance.
Instructional Analysis	The procedures applied to an instructional goal in order to identify the relevant skills and their subordinate skills and information required for a student to achieve the goal. (See also Instructional Goal).

Instructional Goal	The objective of instruction; what the learner must know or be able to do at the conclusion of the instruction. (See also Instructional Analysis).
Instructional Interventions	Interventions (solutions) identified from an analysis that are associated with skills / knowledge gaps.
Instructional Plan (IP)	See Cost Benefit Analysis Plan (CBAP); The CBAP was formerly called an Instructional Plan (IP).
Instructional Systems Design (ISD)	A systematic approach to developing training or instruction that involves five phases: analysis, design, development, implementation, and evaluation. Data from one phase serves as input for the next phase. For example, analysis outputs enlighten subsequent decisions in the design process.
Interventions	The recommendations that are the outcomes of a performance analysis ; known as interventions or solutions.
Interview / Focus Group	A data collection strategy in which oral questions are asked of individuals or small groups of individuals to gather relevant information. Can take place face-to-face or over the telephone.
Job	The formal title of a position (same as job title); also used to include specialty (e.g., Machinery Technician on 270').
Job Aids	A storage place for information other than human memory. Job aids are guides that support performance by helping members perform tasks that they do infrequently, are too complex to memorize, or that are comprised of steps that are critical. Examples of job aids range from simple checklists, to document templates, to aviation repair procedures. Job aids may either supplement or replace training.

Job aid analysis	<p>A type of analysis that involves two steps and provides two outputs:</p> <ul style="list-style-type: none"> • Determination as to whether a job aid is appropriate to support performance of a specific task (given environmental, ergonomic or social constraints) or whether that task must be trained to memory. • Determination as to whether job aid can stand alone or it requires extensive or introductory training.
Job aid with extensive training	<p>One possible outcome of a job aid analysis. Job aid with extensive training means the job aid must be used as a training aid and supported by extensive training (i.e., introduction and context, practice, repeated practice, fading, shaping and backward chaining).</p>
Job aid with introductory training	<p>Another possible outcome of a job aid analysis. Job aids with introductory training require relatively little training. It should be sufficient to introduce the job aid, demonstrate how it is used, and provide initial cueing and practice.</p>
Job Analysis	<p>A process used to determine exactly what is included in a particular job and exactly how a job is supposed to be done. Typically, it includes work by subject matter experts who distill a job into a set of functions consistent with major accomplishments and then further chunk the functions into tasks and task elements; type of performance analysis that determines the duties and tasks that are, or should be, performed by personnel occupying a given type of billet or fulfilling a given function.</p>
Job Task Analysis (JTA)	<p>The process of describing jobs based on the organization or task data obtained from incumbents through task inventory surveys. Program and Training Managers use the resulting information to make training decisions (i.e., job aid task, train task, do not train task, train task on-the job).</p>

Knowledge	Being able to accurately recall information or explain where to find the information with minimal search time (the source instruction or reference). Recalling information and finding information with minimal search time are the building blocks for higher order performances. What has to be memorized and what can be left to the open-book real world are contextual decisions and will depend on task-specific characteristics such as frequency, timing, criticality, complexity, etc.
Knowledge Management	Field of study concerned with the desire to create a culture in which knowledge is paramount. Knowledge moves throughout the organization, hopping boundaries and transcending turf. Coast Guard e-Learning is working to attain this culture; CG e-learning is defined as “Growing, using, and moving knowledge using electronic means where we need it and when our people want it.”
Learner Analysis	(Also known as Audience Analysis) study that describes the nature of the worker or students. The determination of pertinent characteristics of members of the target population. Often includes prior knowledge and attitudes toward the content to be taught, as well as attitudes toward the organization and work environment.
Mean	Measure of central tendency; the arithmetic average for a group of numbers that is calculated by adding all of the values and dividing by the total numbers
Means	The way in which we do something. They are the processes, activities, resources, methods or techniques we use to deliver a result.
Mega Planning	Planning focused on external clients, including customers/citizens and the community and society that the organization serves.
Mega Thinking	Thinking about every situation, problem, or opportunity in terms of what you use, do, produce, and deliver as having to add value to external clients and society; same meaning as strategic thinking.
Motivation	Motivation is the personal desire to perform. It is comprised of both value and confidence. Value is knowing why desired performance is important and confidence is the belief by the member that he/she can do it.

<p>Motivation/Incentives (M/I) Interventions</p>	<p>Recommendations for increasing the performer’s personal desire to perform; aids to help performers in seeing the desired performance is important, performance supports, tools, training etc. to increase performer confidence, new incentive program based on performer input for what would be motivating.</p>
<p>Needs</p>	<p>The difference between the desired results (optimals) and the current results (actuals). Needs differ from wants in that needs are based on identified performance gaps, whereas wants have a personal value/preference attached that may or may not be linked to a performance gap or clear performance.</p>
<p>Needs Assessment (NA)</p>	<p>NA (term used interchangeably with performance analysis) is the formal, systematic and data driven process of:</p> <ul style="list-style-type: none"> • Articulating desired outputs based on given organizational or program capstone documents such as mission, vision, most probable scenarios, intelligence and criteria. • Comparing desired outcomes to actuals (current outcomes) to determine gaps at the organizational or unit level. Analyzing gaps as to their scope, magnitude and priority for resolution based on the cost to close the gap as compared to the cost of ignoring it. • Identifying root causes for gaps & recommending potential solutions for closing those gaps. • Implementing the solutions. • Evaluating results. <p>NOTE: A needs assessment places gaps in priority order for resolution based on the cost to meet the need as compared to the cost of ignoring it.</p>

Occupational Analysis (OA)	A “snap shot” of the world of work of an occupation; refers to a number of procedures to measure the job structure of an occupation; in most organizations these procedures are referred to as “job analysis” – however, analysts for most military organizations examine job families such as those in the Coast Guard enlisted rating structure.
Off-the-Shelf (OTS) Analysis	Off-the-shelf analysis is a process used to evaluate commercial-off-the-shelf (COTS) or government-off-the-shelf (GOTS) training and performance support products for possible use in a Coast Guard program or as potential stand-alone products the Coast Guard could procure or buy. The procedures for analyzing COTS and GOTS products are found in COMDTINST 1554.1 .
O*Net	Stands for Occupational Information Network and is both an occupational classification system and a comprehensive database of job descriptors.
Opportunity	An opportunity presents itself as a condition where, due to advances in capability, you may increase your performance expectations above where they are typically set. Examples are new policies, programs, initiatives, and technologies or cases in which a new requirement must be established. Analysis efforts should focus on unearthing and operationalizing the details of optimal perspectives, skills, and knowledge their customers envision.
Optimals	The desired state. The directions the organization and its people are trying to go. Specifics about broad goals and desired skills, knowledge, and perspectives as they relate to a particular task or organizational problem.
Outputs	Statements of accomplishment. They are NOT behaviors. They are NOT increments of knowledge. They are statements of what the performer produces on the job. (See Accomplishments).
Paradigm	Describing behavior to the operant level. A notational model for recording the operants a student must learn; an expression of operant sequence and the discriminations and generalizations to be made; operants expressed as the smallest meaning increments of behavior
Perform/do not perform	Used to determine the percent of people in the job or rating who are performing the task (JTA).
Performers	For the purpose of JTA , those identified as the sample or whole target population taking the JTA survey.

Performance	Summary term used to indicate behaviors and the accomplishment that is produced by those behaviors.
Performance-based Training (PBT)	The training process that trains/job-aids the actual accomplishments and behaviors the student is to produce or do on-the-job; the content of PBT is derived from an analysis of the required job performance; the training curriculum, courses, modules and units are grouped by accomplishments and behaviors (tasks), not by topics or competencies
Performance Analysis (PA)	A performance analysis is often used interchangeably with needs assessment and is a systematic process used to determine what is causing ongoing performance problems or to anticipate performance opportunities and potential problems in new acquisitions and the rollout of new systems. The outcome of a PA is a comprehensive list of recommended solutions to eliminate any performance gaps. New or improved training, equipment, processes, policy, and revised incentives are some examples of what could be included in a recommended solution system. PAs could take anywhere from a few days to several months to complete, depending upon their complexity and the resources available. Analysts consider a PA's scope to best determine what level of analysis is most appropriate. PA is the process by which we partner with clients to figure out how to help them achieve their business goals.
Performance Context Analysis	Analysis that yields information concerning the actual (physical) environment or setting where the learners will successfully use the skills they are learning; it includes physical and social aspects of that environment.
Performance Deficiency	Below standard accomplishment because of inadequate behavior.
Performance Gap	A performance gap exists when optimal s the desired state, differ from actual s, or the current state of performance.
Performance Qualification Factor	Ranking factor of OA Occupational Analysis (OA) survey tasks based on percent of lowest pay grade performing the task and average relative time spent on the task.
Performance Qualification Recommendations	Specific recommendations on what changes may occur to EPQs based on conclusions drawn from statistical analysis of completed surveys.

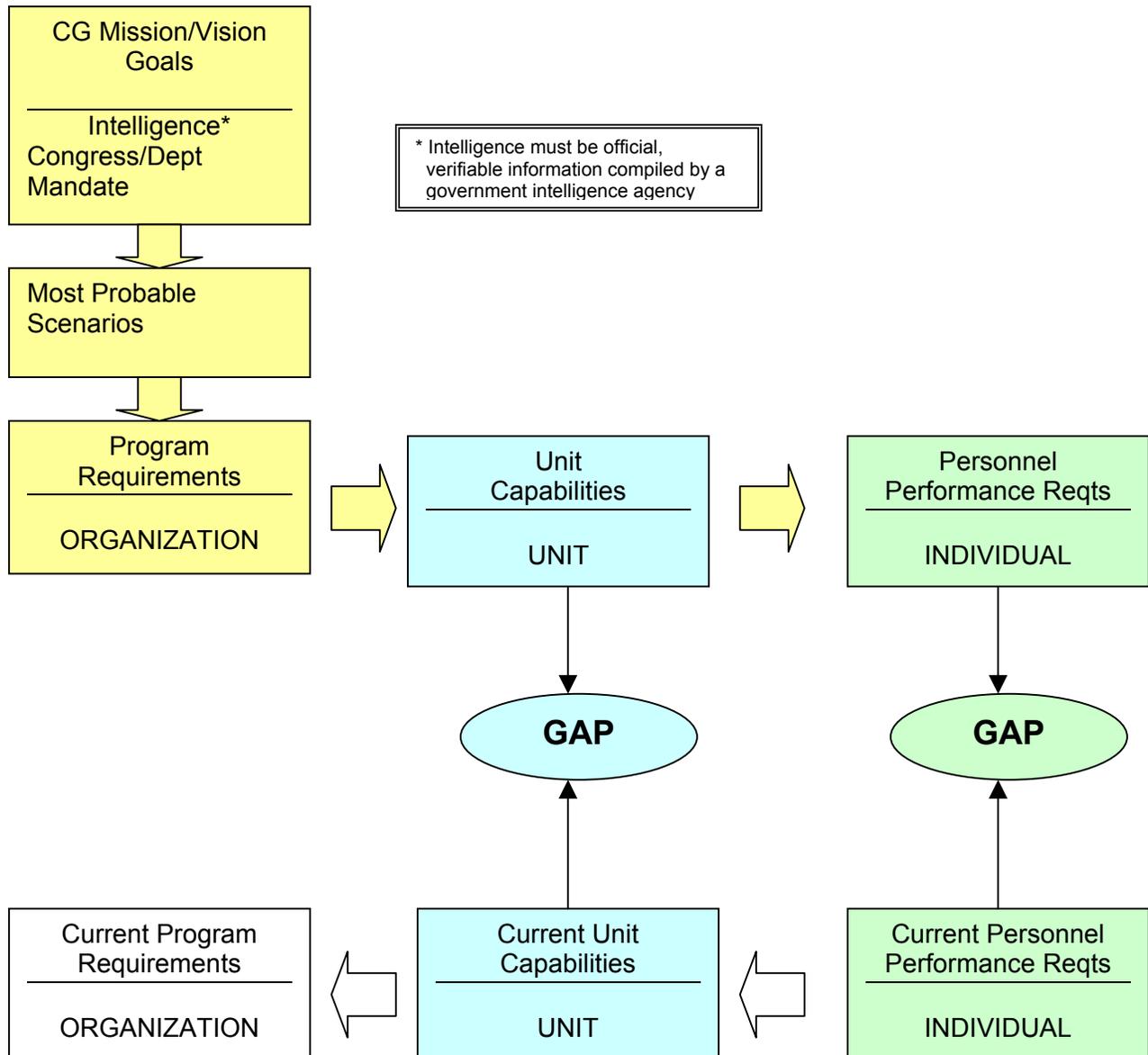
Performance Technologist (PT)	One who applies systematic, data-driven approach to improving human performance. A PT should normally be working toward becoming a Certified Performance Technologist .
Problem	A deviation from standard; less than adequate performance present at the organizational, unit, or individual job level; a problem manifests itself as the inequity between what you seek (optimal) and what you have (actual), therefore a shortfall (gap).
Performance Requirements	The statements that describe specific outcomes with associated criteria and measures; typically promulgated via Commandant Instructions, but sometimes articulated in other program capstone documentation.
Rating Force Master Chief (RFMC)	The Headquarters Ombudsman for individual ratings focusing on structure, qualifications, performance and training. Also the prime customers for OA data.
Rating Review	An activity, normally performed by a Rating Manager or RFMC to determine health of the rating, including assessing structural concerns for the rating size, grade distribution, flow, and performance qualifications.
Request	The initial stimulus for a possible project to aid client in solving a problem or developing a specified perceived need (e.g., help us plan for a new job we are creating).
Root Cause	The reason attributed to a gap or condition where actual and optimal are not the same.
Root Cause Analysis	Study to determine what gets in the way of individual and organizational performance and why. Cause analysis should result in recommended actions that address specific categories of causes, such as: motivational, environmental, skills/knowledge, equipment, and assignment & selection. The idea is that there is a different way to address problems that have different causes. Cause analysis helps ensure that the solution will solve the problem.
Scoping	Determining the boundaries of a project. Answering questions like: How big is the problem? How many people are available to answer the survey? How much is it going to cost? How long will it take? Etc.

Skills	Ability to behave in ways associated with successful job performance.
Skills and Knowledge (S/K) Intervention	A strategy (or strategies) such as training, electronic performance support systems, job aids, better/quicker access to publications, etc. that reduces or eliminates gaps in performer's S/K.
Soft Skills	Terminology for behaviors that is open to wide interpretation and not specific enough for purposes of an FEA (e.g.'s understand, appreciate, some, attitude, leadership).
Solution System	An array of interventions (solutions) that, when strategically combined, increase human performance in the workplace. Decisions about the nature of a solution system are based on causes and drivers and determined during performance analysis .
Specialty	A more specific title within the generic title used to represent more specialized functions (e.g., Johnston Boiler technician is a specialty within MK job title).
Standard Operating Procedures (SOP)	Standard Operating Procedures are intended to prescribe steps, methods, or procedures to provide consistency in results.
Subject Matter Analysis	Conducted through interaction with subject matter experts and documents to derive essential information that is used as the basis for training programs and job aids. Seeks the nature and shape of bodies of knowledge that employees need to possess to do their jobs effectively.
Subject Matter-based Training	The training process that starts with the premise that a certain topic or body of knowledge will be taught, as opposed to performance-based training, which derives content from an analysis of the desired performance; typically the increments of subject matter-based training are grouped by topics and competencies.
Subject Matter Expert (SME)	A SME is a person who is identified as the most knowledgeable regarding a specific subject or piece of equipment; this is not necessarily the person with the most practical experience in the subject or the person who can best employ the piece of equipment – that would be the AP .

Summative Evaluation	Evaluation designed and used after an instructional program has been implemented and formative evaluation completed. The purpose is to present conclusions about the worth of the program or product and make recommendations about its adoption or retention.
Survey	A method of collecting information from the field by use of questionnaires or telephone interviews. PTC has a great online resource for help creating surveys.
Survey Sample	The optimum sample size is the total group. When the total group cannot be surveyed either because of costs, time, or other constraints, a sample is drawn to represent the total. Categorize the population into separate groups (i.e., length of time in position, pay grade, geographical location, unit, or type of equipment used); then select a certain number from each category in approximately the same proportions as in the real population. The purpose of care in sample selection is so the analyst can say the findings are true not just of the individuals who completed the survey, but of those who did not as well.
Supervisor	For the purpose of JTA , those identified as people who supervise the performers.
Systematic	Characteristic of analysis efforts. Systematic efforts are data driven and are defined, orderly processes by which output from one phase serves as input for the next.
Systemic	Having a focus on relationships within an organization and on how change in one component influences others. Recognizing the individual, team and organizational aspects of performance and the need for solution systems predicated on causes.
Systems Approach	Examines those factors, both internal and external to the organization, that impact human performance. Also referred to as Systems Thinking.
Target Population	The workers an analysis project will influence.
Task	A discrete unit of work performed by an individual. It usually comprises a logical and necessary step in the performance of a job duty, and typically has an identifiable beginning and ending.

Task Analysis (TA)	Detailed study performed to define the actions of master performers. Usually based on observing and interviewing accomplished performers as they do their work. Often results in a detailed list of activities, elements, and sub-elements in carefully specified order. TA considers both overt (can be observed) and covert (thinking and decision making skills that can't be observed) behaviors.
Train, no train, job aid, job aid with training, OJT recommendations	Outcomes of JTA .
Training	An intervention for bringing about a change in behavior when a lack of skills or knowledge is present.

Appendix A: Coast Guard Alignment Process



Appendix B: Request for Analysis Form

Request for Analysis (RFA)

Date:

Originating Office:

Point of Contact / Phone:

Subject of Request:

Are you requesting this analysis to address a problem with an existing situation or to address the rollout of a new system or skill? Completed forms should be emailed as attachments to the Performance Technology Team Leader (G-WTT-1). Attach appropriate documentation and additional sheets as required.

IS THERE A PROBLEM?

Yes ___	<u>Is there a problem with an existing system?</u> (i.e. radio, weapon, platform, etc.)
No ___	If Yes, provide the indicators or evidence that this system is no longer meeting your requirements.
Yes ___	<u>Is there a problem with the performance of CG personnel?</u> (i.e. Boarding Officers, Pollution Investigator, Coxswain, etc.)
No ___	If Yes, provide the indicators or evidence that the CG personnel's performance is less than what is expected. Reference any applicable policy, doctrine or requirements documents that describe the desired performance.
Yes ___	<u>Has this problem been analyzed before?</u> If so, please provide the status of the results.
No ___	

IS THIS A NEW SYSTEM OR POLICY?

Yes ___	<u>Is this a new system?</u> (i.e. new radio, weapon, platform or job is being considered for the field.)
No ___	If Yes, provide a status of the acquisition and deployment of the new system. Provide the status of the maintenance philosophy and policy for operating the new system.
Yes ___	<u>Is this a new policy?</u> (i.e. New policy for conducting a boarding, new tactics for employing a current (or new) weapon system)
No ___	If Yes, provide a description of why this policy was developed. i.e. This policy was developed in response to what?

Provide the following information for all requests for analysis:

1. **Attach a copy of the approved program requirement(s) that this system or policy is seeking to address. (Program requirements are statements that describe specific outcomes with associated criteria and measures. These are typically promulgated via COMDT Instructions but are sometimes articulated in other program, capstone documentation. The CG LE and INTEL programs have some good examples which should be followed whenever possible.)**
2. **Describe how the program requirement(s) provided in question (1) will help the Commandant achieve one (or portion of) his stated Strategic Goals. Goals: Maritime Safety, Maritime Security, Protection of Natural Resources, Maritime Mobility, and National Defense. Refer to the CG Business Plan FY03-07 for additional explanation of these goals.**

3. **Describe any hard deadlines that will have to be considered when developing the timeline for completion of this analysis.**

4. **Please provide the name/numbers of members of your staff that are available to provide additional information or to provide regular assistance during the analysis.**

5. **Please describe any specific funding that is available for this effort. \$_____K**

Appendix C: RFA Summary Sheet

RFA Summary Sheet

Originating Office:

Point of Contact / Phone:

Subject of Request:

**G-WTT Representative /
Phone:**

These summary sheets have been prepared by the HQ Performance Technology (G-WTT-1) staff and include a description of information that can now be used to prioritize and review the RFA.

This information is not expected to be fully developed and should not be considered a completed product. By including the information here, however, the reviewer has made the determination that (based on the input of the originator) an appropriate amount and type of information should be available to the unit (or contractor) who might later be assigned to conduct this analysis.

Questions should be directed to the G-WTT Representative who reviewed the RFA or to the Performance Technology Team Leader.

DESCRIPTION OF THE NEED / ISSUE

(Summarize but be brief. Suggested starters below... Delete ones not used)

This RFA describes a new _____ or a perceived problem with _____.

If this is new (opportunity) then the background is _____ and the status of the new system or policy is _____, and this new system or policy was developed in response to _____.

If this is a performance problem, the evidence / indicators of this problem are _____.

The desired performance either is or is not known. If known, it is available here _____.

If the problem has been analyzed before, this is the status, scope and date of that effort _____.

VALIDATED PROGRAM REQUIREMENTS

Be brief. Don't have to give details, just say whether or not they exist (and where are they?) or should be developed as the first phase of the analysis. If the requirements are new and are known, mention that in a way that clearly articulates the magnitude of the change to CG personnel. Provide examples or references that prove the CG organization buys into this so as to guard against this just being one office's (unvalidated) initiative.

VALIDATED LINK TO COMMANDANT'S STRATEGIC GOALS

Be brief. Can you find a link? If yes, say so. If it is obvious, then fewer words should be used. If it is not so obvious to an unfamiliar reader, then provide some words that would lead a reasonable person to the same understanding as yours. Provide examples or references that prove the CG organization buys into this so as to guard against this just being one office's (unvalidated) initiative.

OTHER INFORMATION

Only fill in if required. Examples: any mandate to do this? Related to high visibility operation? Funding is available immediately? Hard deadline for action is known?

LEVEL / TYPE OF ANALYSIS RECOMMENDED: _____ (See Job Aid for detailed explanation of level and types of analysis available) _____.

- Needs Assessment**
- Front End Analysis (Diagnostic)**
- Front End Analysis (New Performance Planning)**
- Job Task Analysis**
- Cost Benefit Analysis**
- Evaluation**

(Normally just select the type from the list above and delete all the others, including these comments.)

If this is an odd ball and more direction is required about the level or some reasoning seems appropriate as to why you are recommending an odd combination – maybe two different analyses are recommended – then write that here.

Your recommendation must be supportable based on the information provided by the RFA originator or by your independent research. DO NOT automatically default to a “comfortable” analysis type. If you are having trouble articulating answers, then maybe it cannot and should not be validated. Describe why or why not.

These should be your recommendations. If you are still having difficulty with a tough one, we still have time to discuss with other teammates and/or with the team leader.)

REMEMBER: Keep this brief – keep this whole form to ONE PAGE.

Appendix D: Analysis Continuum

ANALYSIS		G-WTT can normally tailor the scope and breadth of these analyses to meet client needs.	
LEVEL	TYPE	Description	Typical Outcome
ORGANIZATION / UNIT	<u>Needs Assessment</u>	<p>The systematic and data driven process of...</p> <p>Articulating desired outcomes based on given organizational or program capstone documents such as mission, vision, most probable scenarios, intelligence and criteria.</p> <p>Comparing desired outcomes to actual to determine gaps at the organizational or unit level.</p> <p>Analyzing gaps as to their scope, magnitude and priority for resolution based on the cost to close the gap as compared to the cost of ignoring it.</p> <p>Identifying root causes for gaps and potential solutions for closing those gaps.</p>	<ul style="list-style-type: none"> - Program or mission requirements - Description, costs and ROI for recommended solutions at the organization or unit level <p>This level of analysis will not normally result in a training program but a list of requirements and (if applicable) recommended solutions to address the most significant program or mission problems, including training. Additional analysis may be required to develop solutions.</p>
INDIVIDUAL / UNIT	<u>Front End Analysis (FEA)</u> (Diagnostic) or (New Performance Planning)	<p>An analysis at the individual level can only be conducted if validated mission / program requirements exist for the job or position being analyzed.</p> <p>Diagnostic FEA: problem-solving analysis procedures used in projects when existing performers are not producing current accomplishments satisfactorily; the procedures find the deficiency (gap) in performance at task level as well as the cause and solutions for closing the performance gap.</p> <p>New Performance Planning FEA: The type of analysis that defines and describes major accomplishments, tasks, task steps, sub-steps and the positive influences required to support optimal performance for a newly created job, a new piece of equipment, a new system – any new start in the organization.</p> <p>If training/performance support is recommended, it will also include detailed task analysis required to develop training/performance support products.</p>	<ul style="list-style-type: none"> - Individual performance requirements - Deficient tasks & recommendations to improve performance/close gap - Description of major accomplishments, tasks and sub-steps; recommendations for improving performance at the job or position level
TRAINING	Job Task Analysis	A systematic process to determine tasks and steps associated with the conduct of a validated job or position, for which skills/knowledge gaps have been determined to exist.	Lists of tasks and steps and most effective means of delivering task-level information (train, no-train, OJT and Job Aid recommendations).
	Cost-benefits Analysis Plan (CBAP)	A systematic review of various delivery options to determine the most effective and efficient performance support solutions to eliminate or reduce KSA gaps.	Description, costs and benefits for training/performance support solution options.
EVALUATION	Evaluation	A systematic review of an existing validated intervention to determine the extent to which it is achieving the desired results.	Recommendations to keep, modify or eliminate existing performance support system.

Appendix E: Client/Sponsor Project Satisfaction Feedback Form

Administered by:

IF Analysis conducted by:	THEN Feedback and Validation forms will be administered by:
G-WTT-1 staff	G-WTT-1
PTC Analysts	PTC Analysis Branch Chief.
TRAPET Analysis	Tpi Branch Chief
Contracted Personnel	COTR at WTT-1, PTC or TRAPET as appropriate.
Auxiliary Personnel	G-WTT-1 or PTC as appropriate.

Title: _____ RFA Tracking Number: _____

Person Who Conducted the Analysis and Unit: _____

Explanation of Evaluation Criteria:

- Yes** Indicate **Yes** if all of the criteria in the description block are included and are clearly articulated
- No** Indicate **No** if one or more of the criteria are not included or if more than half require further explanation

Project Planning

ITEM	QUESTION	EVALUATION	
Scope	Was the analysis conducted in accordance with the agreed upon scope of your project?	<input type="radio"/> Yes	<input type="radio"/> No
Budget	Was the analysis completed at or below the agreed upon budget?	<input type="radio"/> Yes	<input type="radio"/> No
Progress	Did you receive adequate progress reports to remain aware of the analysis?	<input type="radio"/> Yes	<input type="radio"/> No
Timeline	Was the analysis completed within the agreed upon timeline?	<input type="radio"/> Yes	<input type="radio"/> No

What would make the analysis process more useful to your program?

Comments

Recommendations:

ITEM	QUESTION	EVALUATION
Relevance	Did the recommendations appropriately consider and address your originally stated problem or opportunity?	<input type="radio"/> Yes <input type="radio"/> No
Resources	Were the outcomes of this analysis used to justify resources by your program, (Resource Proposals)?	<input type="radio"/> Yes <input type="radio"/> No
Usefulness	How many recommendations were made in the analysis?	
Usefulness	How many recommendations have you implemented? Comment below as to why recommendations were not implemented.	

Comments

Completed By: _____ Date: _____

Reviewed By: _____ Date: _____

(Send Copy to G-WTT-1)

Appendix F: Analysis Validation Requirements Checklist

Analysis sources shall use this checklist to evaluate analysis quality. Analyses shall be conducted in accordance with the default methodologies provided in this SOP. They must also be consistent with the principles included in this checklist.

When waivers to the methodologies in this SOP are approved by G-WTT, this checklist will be used to ensure basic human performance technology and educational research principles are adhered to.

Explanation of Evaluation Criteria:

- Yes** Indicate **Yes** if all of the criteria in the description block are included and are clearly articulated.
- No** Indicate **No** if one or more of the criteria are not included or if more than half require further explanation.
- N/A** **Not Applicable.** This item is not required for this analysis. Justification for this determination should normally be attached.

Title: _____ RFA Tracking Number: _____

Person Who Conducted the Analysis and Unit: _____

ITEM	DESCRIPTION	EVALUATION
Charter (if appropriate to project scope)	The charter should be a stand alone document normally included as an appendix.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Problem Statement	Includes a clear statement as to the gap being analyzed or the opportunity to which this effort was directed as well as thorough explanation of the symptoms and indicators of the problem.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Drivers	These are the pressures, incidents, near misses or initiatives that led to this particular problem being addressed now.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Alignment with Organizational Vision, Mission, Goals	The linkages between this effort and Coast Guard and program vision, mission, goals and requirements are clearly articulated	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Alignment with Program Goals, Objectives, Standards	The linkages between this effort and the Program (or client's) goals, objectives, standards must be clearly articulated.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

ITEM	DESCRIPTION	EVALUATION
Methodology	A brief explanation of the approach taken, models used, data collection techniques, etc. This should specifically detail reasoning, applicability to project scope and limitations.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Data Summary / References	Although it is not normally practical to include raw data, a sufficient summary of the data shall normally be included as an appendix as well as a list of references and actions taken.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Performance Analysis (if appropriate to project scope)	(Desired State) Individual Performance requirements ID'd and link articulated via unit capabilities and program requirements (Optimals or What Should Be).	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
	(Current State) Individual Performance Requirements ID'd and link articulated via current unit capabilities and program requirements (Actual or What Is).	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
	(Gap Analysis) Needs (or the difference between the current and desired state) at each level are articulated and quantified as to their size and importance.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Root Cause Analysis (if appropriate to project scope)	Root causes are ID'd for each gap. Each cause should be adequately described and categorized as either Knowledge & Skills; Motivation & Self Concept; Performance Capacity; Expectations & Feedback; Tools & Processes; Rewards, Recognition & Incentives, Assignment & Selection.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
	Adequate explanation is provided to show that root causes are directly linked to previously ID'd gaps.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Recommendations	A clear presentation of various solution systems that are adequately described with explanation, estimated cost, potential barriers to implementation, and strengths.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
	Adequate explanation is provided to show that solutions are directly linked to previously ID'd root causes.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
	A brief explanation of the linkages between knowledge, skills and abilities (KSAs) needs and organizational / program requirements via the analysis that validated the training needs.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

	Existing CG courses are ID'd (if appropriate) to close training needs with explanation, estimated costs to modify courses, throughput requirements, potential barriers to implementation, and strengths.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
	Existing DOD and other agency (e.g., FLETC) courses are ID'd (if appropriate) to close training needs with explanation, estimated costs or resource requirements, throughput requirements, potential barriers to implementation, and strengths.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
	New courses are ID'd (if appropriate) to close training needs with explanation, estimated development costs, throughput requirements, potential barriers to implementation, and strengths.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

Comments: _____

Completed By: _____ Date: _____

Reviewed By: _____ Date: _____

Send Copy to (G-WTT-1)

Appendix G: Sample Plan Of Action & Milestones (POAM)

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-WTT
Phone: (202) 267-2438
Fax:
Email:

1500

MEMORANDUM

From: G-WTT-1

Reply to G-WTT
Attn of:

To: *Client or Program supporting Analysis*

Thru: As appropriate

Subj: *Analysis Title*

Ref: (a) Volume 2, Analysis, Training System Standard Operating Procedures
(b) *Analysis Report date*
(c) *Analysis Out Brief at CGHQ date*

1. Purpose. This Plan of Action and Milestones is to document the lead office(s) responsible for enacting recommendations outlined in references (a) and (b).
2. Background. As described in reference (a), the outcome of any analysis is to identify barriers to performance and recommend solutions to problems or realization of opportunities. Analysis leads to a solution *system* for a problem or opportunity. Every effort should be made to implement as many of the recommended solutions as possible, because concentrating exclusively on one solution will not entirely resolve the problem.
3. Actions. As identified in enclosure (1).
4. My points of contact for this action plan are: *list POCs*.
#

Enclosure: (1) Action Plan – *Title of Analysis*

Copy: *Unit Completing Analysis*

Appendix H: Resourcing Procedures for the Design and Development of Alternative Deliveries

Introduction	This section describes how design and development of validated solutions are requested, validated, prioritized, assigned and managed.
Target Audience	Headquarters Program Managers shall use the enclosed procedures to develop validated solutions.
Background	The Performance Technology Center (PTC) located at Yorktown, Virginia, can manage several development projects simultaneously. If unable to conduct the work themselves, they also have contracting mechanisms in place to bring in additional resources.
Procedures	<p>The POAM resulting from a validated analysis may recommend a non-traditional or "alternative" delivery of a training/performance support solution as the best option.</p> <p>Some of these alternative delivery systems are:</p> <ul style="list-style-type: none">• Computer-based training (CBT)• Computer assisted, self-paced instruction (CAI)• Electronic Performance Support Systems (EPSSs)• Interactive video teletraining (IVT)• Structured on-the-job training (OJT) modules and tools• Web-based training (WBT) via Intra/Inter/Extranets• Videos and workbooks• Electronic workbooks• "Blended" solutions (a mixture of training and performance supports, i.e., WBT, PDA for data collection, EPSS containing links to pubs and job aids)

**Procedures
(continued)**

-
- The [Coast Guard's PTC](#) and [TRACEN Petaluma](#) maintain a limited (but ever increasing) ability to design and develop training solutions. Additionally, contractors are available for projects outside the Coast Guard's scope and ability. If the client opts to move ahead with design and development of an alternative delivery/performance support, then he/she shall engage the [PTC's Design and Development \(Pm\) Branch](#) .
 1. The client should notify the G-WTT representative that the program wants to move ahead with recommended solutions from a validated analysis.
 2. The G-WTT representative shall establish contact with the Pm Branch to set up a pre-alignment meeting. This meeting's goal is for the Pm branch to present options for the project. The various options depend on time, costs and developer source (PTC, Petaluma, contractor).
 3. If the client desires to move forward with the project, he/she must transfer funds to PTC.

Upon receipt of funding, PTC will coordinate the alignment meeting with the client. G-WTT representative will attend that meeting. However, from this point on, G-WTT-1 involvement may vary.

Appendix I: Performance Analysis Alignment Tool

The first step in conducting any analysis will normally be to ensure alignment. Alignment with the client ensures that expectations are met with regards to the scope of the project, resources available and time to complete. Alignment also enables the PT or analyst to verify that a clear link can be articulated between the activity being supported and the organization's pursuit of its goals and objectives AND that the need to address this particular issue has been prioritized relative to other pending needs.

Step	Who	Action
1	PT / Analyst, Clients, Program Managers	<p>Research:</p> <ul style="list-style-type: none"> • Collects sufficient information from stakeholders, reviews extant data, RFA, etc. • Reviews opinions and research conducted by other programs. Have these problems ever been reviewed before? • Discusses dissenting opinions with other programs to see if their concerns have been alleviated or have changed. If not, seeks to understand why they think the way that they do. Are their opinions based on objective data?
2	PT / Analyst	<ul style="list-style-type: none"> • Lists the references reviewed that have had an impact on the determinations supported by the report.
3	PT / Analyst	<ul style="list-style-type: none"> • Describes the purpose of the project. What is this project trying to accomplish?
4	PT / Analyst	<p>Describes project background:</p> <ul style="list-style-type: none"> • Articulates a clear problem statement that describes the (<i>Why now?</i>) drivers, other “drivers” or those pressures, incidents, near misses or initiatives that led to this particular problem being addressed now. • Considers the population believed to be primarily impacted, factors or forces that will encourage and challenge goal accomplishment regarding the gap being analyzed or the opportunity to which this effort was directed. • Provides a thorough explanation of the symptoms and indicators of the problem. • If appropriate, also provides a thorough discussion of other projects, studies or initiatives that impact this project.
5	PT / Analyst & Client	<p>Aligns with client:</p> <ul style="list-style-type: none"> • Provide an explanation of how this project is aligned within the larger context of Coast Guard desired outcomes. The NA should begin with a review of highest level vision and mission statement validated and available, usually official policy from the Commandant’s Office or other signed documents that have been subjected to a thorough concurrent clearance.

Appendix J: Data Collection Methods

When determining the source(s) and method(s) to collect data, the consultant or analyst must consider the following:

- Type of data desired
- Size and location of groups from whom data will be collected
- Resources available for data collection
- Cost and available funds
- Amount of time available
- *Note* – onsite interviews and observations are always preferable when time and resources allow.

IF type of information required is:	AND sources of data include:	THEN possible collection methods include:
<p>Organizational / Unit Level (SHOULD): Optimals</p> <p>Determine what should be done to achieve the desired performance results.</p>	Senior Leadership	Interview
	Benchmarking / Best Practices	Document Review Literature Review
	Managers/ Supervisors of Accomplished Performers	Interview Questionnaire Focus Group
	Operational Reports	Document Review
	Accomplished Performers	Focus Group Observation
	Customers	Questionnaire
<p>Organizational / Unit Level Actuals (IS):</p> <p>Determine what is currently being done to achieve the current performance results.</p>	Managers of “Typical” Performers	Interview Questionnaire Focus Group
	Unit level leadership	Interview Questionnaire
	Operational Reports	Document Review
	Customers	Document Review Interview Questionnaire
	Program Manager	Interview Questionnaire
	Typical Performers	Interview Questionnaire Focus Group Observation

Appendix K: Rationale for Data Collection Methods

Type of Method	Advantages	Disadvantages
<p>Interview/Focus Group</p> <p><i>A data collection strategy in which oral questions are asked of individuals or small groups of individuals to gather relevant information. Can take place face-to-face or over the telephone. Individuals involved may express job experiences, job approaches, attitudes, requirements and/ or barriers to performance.</i></p>	<p>Obtain information required to make a succinct problem statement about the difference between what exists and what management wants (what is desired)</p> <p>A lot of information can be shared in a short period of time</p> <p>Open to discovery of attitudes, opinions, issues, and facts not anticipated</p> <p>Reactionary data</p> <p>Provide for qualitative or descriptive data, not quantitative</p> <p>Provides an opportunity to reply openly, and to expand on ideas</p> <p>Can observe if face-to-face</p>	<p>Labor-intensive</p> <p>Higher cost per response</p> <p>Tabulation of data is time consuming</p> <p>Data analysis requires content analysis skill</p> <p>Requires skilled interviewer for complete, unbiased data</p> <p>Cannot ensure confidentiality</p> <p>Need to ensure inter-rater reliability and consistency of method used to ask questions if more than one interviewer is used</p> <p>Gathering representatives from different geographical areas may be difficult</p>
<p>Document Review/ Literature Review</p> <p><i>A data collection strategy in which the content of a document is systematically analyzed to obtain relevant information.</i></p>	<p>Sources of data consist of business documents, including management reports, paper documents, computer data, audiotapes, and videotapes; the organization's vision, mission, and strategic plan often provide information regarding both internal and external factors that affect performance; annual reports, marketing plans, sales reports, and employee surveys will provide valuable information</p> <p>Provides access to operational and/or management data</p> <p>Translates documentation into SHOULD and IS performance</p> <p>Provides information about the documents available to the performer</p>	<p>Additional information usually required</p> <p>Does not provide info about changes that have been instituted on the job</p> <p>Information is limited to data that is described by procedures and included in management reports</p>

Type of Method	Advantages	Disadvantages
<p>Observation</p> <p><i>A data collection strategy in which accomplished performers or typical performers are observed as they perform a task.</i></p>	<p>When the population or random sample is relatively small</p> <p>When it is important to denote deviations from required procedures</p> <p>Provides an opportunity to observe job performance in the work setting</p> <p>Able to see what is actually happening; no interpretation by a third party</p> <p>Ability to make notes about the factors that enhance the performance, such as ease of information, and those that prohibit their performance, such as excessive noise or numerous interruptions</p>	<p>Labor-intensive</p> <p>High-cost</p> <p>Provides data only on what can be seen</p> <p>Observer may have an affect on job performance</p> <p>Observation must be well planned in advance</p> <p>Observer must be well trained</p>
<p>Questionnaire</p> <p><i>A data collection strategy in which a list of relevant questions is presented to a large number or people. Can be conducted through the mail, telephone, or interviews.</i></p>	<p>Well suited for collecting quantifiable data: How many people agree? How much overlap is there?</p> <p>Best when questions are lengthy or require the respondent to look up information or to think about his/ her response</p> <p>Can reach large sums of people</p> <p>Can reach people in a variety of geographic locations</p> <p>Easy to administer, easy to take</p> <p>Present all questions in a consistent manner so answers aren't susceptible to any face-to-face interview biases</p> <p>Cost less than other data collection methods</p> <p>Able to ensure confidentiality</p> <p>Easy to tabulate if closed-ended questions are used</p>	<p>Difficult to construct, requires thorough knowledge of the situation before questions can be developed</p> <p>No way to ensure the person who answers the questionnaire is the person it was sent to</p> <p>Low response rate, can be a problem</p> <p>No way to probe for more information</p> <p>Time MUST be allocated for piloting of the questionnaire</p>

Adapted from Robinson and Robinson (1995).

Appendix L: Performance Analysis Report

At the end of the performance analysis phase, the consultant or analyst shall present to the client a Performance Analysis Report outlining the gap between what IS and what SHOULD be for on-the-job performance. The consultant or analyst will seek agreement with the client on the report.

Statement of Problem or Opportunity: *(from user input of Problem or Opportunity)*

How much is it costing organization?

Direct costs of the problem:

Indirect costs of the problem:

Data collection methods used to analyze problem / opportunity:

- Interviews
- Document Review
- Focus Group
- Survey
- Etc.

Desired operational results:

What specific outcomes does the program want to achieve? What does success look like?

What specific measurements will be used to determine if these outcomes have been achieved? How will you know they you have arrived at success?

Current operational results:

What results is the program currently realizing?

What measurements is the program using?

Desired unit / job results: *(Depending on scope of scope of analysis)*

What must members do differently on the job if programs goals are to be met?

Current unit / job results: *(Depending on scope of scope of analysis)*

What results are being achieved at the unit / job level?

What do performers actually do on the job to achieve a performance result?

Describe gaps at:

Operational level: *(Depending on scope of scope of analysis)*

Unit level: *(Depending on scope of scope of analysis)*

Job level: *(Depending on scope of scope of analysis)*

Appendix M: Root Cause Determination Guide

1. Review Performance Analysis Report

2. Data collection considerations. This guide is designed to assist the consultant or analyst to frame questions that will reveal the root causes. The determination of cause is probably one of the most important steps in the entire process. The analyst can only determine if it is a systems problem, process problem, human resource problem, training problem etc, through an in-depth analysis of the root cause or causes. When collecting data on root causes, the consultant or analyst should consider the following:

- Who/what are reliable sources of information?
- What methodologies should be used to collect the data?
- Size and location of groups from whom data will be collected
- Resources available for data collection
- Cost and available funds
- Amount of time available

3. Determine Root Causes

A. Lack of Skills and Knowledge: Performer Responsibility

Data sources: Performers, Supervisors, Operational Reports

Data collection methods: Interview, Observation, Focus Groups, Document Review

Does the individual have the knowledge, skills, and experience to perform?	Yes	No
Does the individual know how to do it? Does he/ she have knowledge requirements?	Yes	No
Is the individual good at it? Does he/ she meet the skill requirements?	Yes	No
Is the performer new to the task?	Yes	No
Was the poor performer once a good performer?	Yes	No
Is the task called for on a frequent basis?	Yes	No
Could the performer do what you need if he/ she knew his/ her life depended on it?	Yes	No
If the performer had only one thing to accomplish, and everything to do it with, and could name his/ her own reward for doing the task, could the person complete the task?	Yes	No

B. Performance Capacity: Performer Responsibility

Data sources: Performers, Supervisors, Operational Reports

Data collection methods: Interview, Observation, Focus Groups, Document Review

Is the performer physically able to perform?	Yes	No
Is the performer mentally able to perform?	Yes	No
Is the performer socially (emotionally) able to perform?	Yes	No

C. Motivation/ Self- Concept: Performer Responsibility

Data sources: Performers, Supervisors

Data collection methods: Interview, Observation, Focus Groups

Is the performer self- motivated?	Yes	No
Does the individual want to perform no matter what?	Yes	No
Is the performer able to monitor his/her own performance?	Yes	No
Has the performer been carefully selected and assigned to the task?	Yes	No
Does the individual see him/ herself as competent?	Yes	No

D. Expectations and Feedback: Supervisor/ Management Responsibility

Data sources: Performers, Supervisors, Policy Documents

Data collection methods: Interview, Observation, Focus Groups, Document Review

Are expectations clear to the performer? (i.e., Does the performer know what to do?)	Yes	No
Are appropriate benchmarks in place?	Yes	No
Will the performer know how he/she is doing, (i.e., When he/she has done a job correctly?)	Yes	No
Does the performer receive feedback or follow-up?	Yes	No
Is the performer provided with the appropriate level of performance challenge?	Yes	No
Is the performer provided with coaching?	Yes	No
Are developmental plans in place to support performer?	Yes	No

E. Tools and Processes: Supervisor/ Management Responsibility

Data sources: Performers, Supervisors, Policy Documents, Best Practices

Data collection methods: Observation, Focus Groups, Document/ Literature Review

Do existing processes used by performers work?	Yes	No
Does the performer have the capacity to perform (quantity, quality, and timeliness)?	Yes	No
Do the performers have the tools to do the job?	Yes	No
Does the organization establish and maintain selection and training policies and resources?	Yes	No
Is supporting documentation, job aids, and/or other performance support available to the performer? Does the process provide the information and human factors required to maintain it?	Yes	No
Has the degree of work pace, structure, and organization required of the performers been identified?	Yes	No
Is the work area suitable?	Yes	No
Does the physical environment support the accomplishment of the required results?	Yes	No
Do both formal and informal Coast Guard leaders (management structure) support the accomplishment of the desired results specified?	Yes	No

Does the Coast Guard's commitment to learning support the accomplishment of the desired results specified?		
Does the organization have the leadership, capital, and infrastructure to achieve its mission/ goals?		
Do the policies and rules/ accepted traditions, ceremonies/ accepted behaviors and norms of the Coast Guard support the accomplishment of the desired results specified?		
What are the forces, within and outside of the organization, that encourage or inhibit accomplishment of a result?		
Are there organizational context barriers that may prevent long-term or continued success of the solution?		
Is there a primary stakeholder, and owner of this opportunity/solution that will support its adoption and diffusion?		

F. Rewards, Recognition & Incentives: Supervisor/ Management Responsibility

Data sources: Performers, Supervisors, HR Documents, Best Practices

Data collection methods: Interview, Focus Groups, Document/ Literature Review

Is performance rewarded?	Yes	No
Are rewards linked to accomplishments?	Yes	No
Is there an expectation of rewards?	Yes	No
Are rewards consistent?	Yes	No
Are incentive plans linked to changes?	Yes	No
Are incentive plans achievable?	Yes	No

Appendix N: Root Cause Analysis Report

At the end of the root cause analysis phase, the consultant or analyst shall present to the client a Cause Analysis Report outlining the underlying causes contributing to the problem. The consultant or analyst will seek agreement with the client on the report.

List gaps:

List data sources and collection methods used to analyze gaps:

- Interviews
- Document Review
- Focus Group
- Survey
- Etc.

List cause(s) for gaps:

Classify causes:

Example Root Cause analysis report:

Performance Gap	Root Causes	Classification
1. 42% of office correspondence is incorrect. Data sources: (Performers, Supervisors, Policy Documents) Data collection Methods: (Interviews, Focus Groups, Observation, Document Review)	Staff selection process does not adequately assess/ gauge writing skills.	Performance capacity Skills & Knowledge Motivation and Self Concept
	No criteria used to judge writing skills	Tools / Processes Expectations/ Feedback
	No/ inadequate/ ineffective training to address this performance need.	Expectations/ Feedback Skills & Knowledge
	No/ inadequate job aids to address this performance need.	Tools and processes Skills & Knowledge
	No/ inadequate/ ineffective personalized feedback to staff regarding their writing skills.	Expectations/ Feedback
	Rewards for gaining writing skills (i.e., learning to write better) do not serve as effective incentives.	Rewards, recognition, incentives
	No deadline for response clearly communicated to staff by supervisors.	Expectations/ Feedback
	Staff not required by their management to adhere to stipulated deadlines.	Expectations/ Feedback Rewards, recognition, incentives

Appendix O: Intervention Development & Selection Tool

This tool is designed to lead to the selection of the most cost-effective, highest quality interventions available.

Step	Who	Action
1	PT / Analyst, Owner of Performance	Brainstorm Solutions: <ul style="list-style-type: none"> The Brainstorming session should have two distinct phases. The first phase is the idea generation phase. At this point, as many potential interventions as possible are created, regardless of initial perceptions of how “doable or appropriate” each solution is. In other words, NO idea is a bad idea. Use table 1 below to guide this process.
2	PT / Analyst, Owner of Performance	Narrow the list based on the intervention’s appropriateness. Appropriateness is defined in this situation to mean “the closeness of the fit of the solution to the business strategy of the organization and to the identified causes.”
3	PT / Analyst	A manageable number of solutions at this point would be 3-5 for each Performance Gap.

The table below links causes of performance gaps to possible interventions or solutions: This list is not exhaustive, but rather serves as a tool for the consultant or analyst to work from.

Table 1. Root Causes & Possible Interventions

IF Root Causes is:	Then possible Interventions include:
Lack of Skill and/ or Knowledge	<ul style="list-style-type: none"> Training Documentation, job aids Coaching Performance Support Systems Knowledge management tools and databases
Lack of Motivation & Self Concept (including lack of appreciation for value and lack of confidence)	<ul style="list-style-type: none"> Information, so workers can see benefits, impact, and value Links to work challenges Use of role models Early successes to instill confidence Participatory roles in selecting goals Health & wellness
Lack of Performance Capacity	<ul style="list-style-type: none"> Better selection and job-person matches Team building Health & wellness
Lack of Expectations & Feedback	<ul style="list-style-type: none"> Coaching supervisors and managers Career/ work development plans Appraisal systems

<p>Lack of Tools & Processes</p>	<ul style="list-style-type: none"> • Work and process redesign • New and/or better tools and technologies • New and/or better work environment • Organizational redesign • Culture change • Staffing • Resources
<p>Lack of Rewards, Recognition & Incentives</p>	<ul style="list-style-type: none"> • Revised policies • Revised contracts • Training for supervisors and managers • Incentive, recognition, and bonus plans

Appendix P: Rating Interventions

Use the questions contained in table 1 to rate each performance improvement intervention. Many of the questions can be used in the initial evaluations of the intervention. The methods for collecting the information can include a discussion board, e-mail, face-to-face interviews, focus groups, or an online survey.

Table 1. Intervention Rating Criteria

<p>Rationale - refers to both the external and internal organizational environment. It borrows from strategic planning theory to assess the appropriateness of the selected solution. Is the mission of the organization, work processes, and individual performance, aligned with the performance requirements? Rationale also assesses appropriateness in terms of Return on Investment (ROI). How much is the problem costing the organization in monetary terms? Once the cost of the problem is determined, the benefits of the solution may be estimated. ROI is further predicted using a cost-benefit analysis that will be explained in the Value section.</p>		
Strategic - Organizational Context	Organization - Unit Context	Performer Context
<ul style="list-style-type: none"> • linked to the organizational mission and vision? • requirements linked to the mission of the organization? • been estimated in terms of impact on current and future effectiveness? • solution been identified in terms of operational results, e.g. increased quality, reduced cycle time? • solution been identified in terms of financial results? • context barriers that may prevent long-term or continued success of the solution? • accepted behaviors and norms support the accomplishment of the results specified in the analysis? 	<ul style="list-style-type: none"> • objectives linked to the unit? 	<ul style="list-style-type: none"> • linked to the job? • required of the intervention meet the quality standards of performers and their supervisors?

Table 1. Intervention Rating Criteria, continued

Value - refers to the value added to the organization by the selected solution. We will use a cost-benefit analysis to complete our ROI estimate. Cost-benefit analysis is used to determine whether the organizational benefits of the intervention will equal or exceed the intervention costs. Essentially, ROI is equal to the dollar amount in organizational results (cost benefits) divided by the actual cost of the intervention; this number can be expressed as a ratio (benefit: cost), or a percentage when multiplied by 100 (Keller, 1994). After the cost-benefit is calculated for each possible solution they will be compared to find the most cost-effective solution. This process is helpful in gaining the support of management and sponsors.

Strategic - Organizational Context	Organization - Unit Context	Performer Context
<p>Is a solution cost-benefit analysis planned for this project? Has a continuous improvement plan including impact evaluation been completed for this solution? Will the monetary value of the results exceed the cost of the solution?</p>	<p>Who are the organization's stakeholders that incur the costs of the interventions? What types of costs will be incurred (e.g., fees, time, materials, equipment, space, energy, environmental impact, labor, transportation, quality of life, societal and opportunity costs)? Over what duration of time will planning, set-up, implementation, and maintenance/cessation costs be incurred?</p>	<p>Is the degree to which the performers use the new solution similar or different across work centers, departments, etc.?</p>

Integration - assesses the feasibility of the selected solution into the organization's current resources and structure. It refers to the abilities and constraints of the given system to hinder or enable the use of the performance intervention. In addition to the physical constraints of the environment, integration also inspects the skills and knowledge, incentives, motivation and consequences of the performers.

Strategic - Organizational Context	Organization - Unit Context	Performer Context
<p>Is the solution responsive to the documented needs? Does the solution adequately address the causal reasons for existing gaps in results? Will the solution be maintained by the command long enough for positive results to manifest? What are the constraints of the given system's resources? Are the tools and resources needed to integrate the solution available?</p>	<p>Do the physical resources and environment support the accomplishment of the results specified in the analysis? Does the performer have the tools to do the job? Do existing processes work? Will supporting documentation, job aids, and other performance support be available? Is there time in the work schedule for performers to use the new solution? Are the goals achievable?</p>	<p>Will the solution meet performance requirements? Is the solution responsive to the specifications of the job/task at hand? Does the solution interface with existing resources and processes used by performers? Will the performer be able to access and utilize the solution?</p>

	<p>Are incentive plans linked to changes?</p> <p>Are rewards linked to accomplishments?</p> <p>Are there non-monetary incentives for use of the new solution?</p>	
<p>Acceptability (Innovation / Change Adoption) - by the organization and its human performers is important in the implementation of a new solution. It assesses the extent to which the new solutions will be accepted, adopted, and supported by the stakeholders, managers, and performers involved. Acceptability may analyze factors such as the performer's acceptance of new technology, new work processes, etc. Advantages over current practices are also assessed. Factors that may make the intervention successful at conception and in the long-term may also be evaluated.</p>		
Strategic - Organizational Context	Organization - Unit Context	Performer Context
<p>Is management generally supportive of the objectives of the solution; i.e. is it an opportunity to address concerns they have?</p> <p>Does management see an advantage to the solution over current practices?</p> <p>Is there a primary stakeholder, and owner of this solution that will support its adoption and diffusion?</p> <p>Is there organizational awareness of the solution and its potential benefits?</p> <p>Do enough performers possess the skills and knowledge required to fully understand the solution and its implications?</p> <p>Does the commitment to learning support the accomplishment of the results specified in the analysis?</p> <p>Do both formal and informal DOR leaders support the accomplishment of the results specified in the analysis?</p>	<p>Does the management structure (i.e. organizational chart) support the accomplishment of the results specified by the analysis?</p> <p>Are expectations clear to the performer? Do workers know what is expected of them on the job?</p> <p>Will the performer know how he/ she is doing, i.e. when he/she has done a job correctly?</p> <p>Does the performer receive feedback or follow-up?</p> <p>What are barriers that may prevent long-term or continued success of the intervention?</p> <p>Will use of learned skills be expected on-the-job?</p> <p>How soon following implementation?</p>	<p>Is the performer self-motivated, i.e. does the performer want to do good work?</p> <p>Can the performer monitor his/her own performance?</p> <p>Has the performer been carefully selected and assigned to the task?</p> <p>Is the performer provided with the appropriate level of performance challenge?</p> <p>Is the performer physically/ mentally/ socially able to perform?</p> <p>Does the performer have the knowledge/ skills required?</p> <p>Do performers perceive skills learned to be relevant to the job?</p> <p>What degree of work pace, structure, and organization is required of the workers?</p>

Appendix Q: Intervention Selection Report

At the end of the intervention selection and design phase, the consultant or analyst shall present to the client a report outlining the recommended interventions that address the underlying causes contributing to the problem and close the performance gap. The consultant or analyst will seek agreement with the client on the report.

List recommended interventions for each performance gap:

List data sources, collection methods and criteria used to rate interventions:

- Interviews
- Document Review
- Focus Group
- Survey
- Etc.

Example Intervention Selection report:

Performance Gap- 42% of office correspondence is incorrect. Data sources: (Performers, Supervisors, Policy Documents) Data collection Methods: (Interviews, Focus Groups, Observation, Document Review)						
Root Causes	Classification	Possible Interventions	Rating (1 Low 5 High)			
			Rational	Value	Integration	Acceptability
No/ inadequate/ ineffective training to address this performance need.	Skills & Knowledge	Training	2	1	4	4
		Job Aid	4	5	2	2
Staff selection process does not adequately assess/ gauge writing skills.	Motivation and Self Concept	Change hiring process	4	4	1	1
No/ inadequate/ ineffective personalized feedback to staff regarding their writing skills.	Expectations/ Feedback	Coach Supervisors	4	4	2	2
		On line training	2	2	3	3
Rewards for gaining writing skills (i.e., learning to write better) do not serve as effective incentives.	Rewards, recognition, incentives	Change reward policy	4	4	4	4
		Implement public recognition program	4	4	4	5

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[USCG Workshop Survey](#)

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SABA; Knowledge Services; Training Design for Peak Performance Workshop

SABA; Knowledge Services; Training Development for Peak Performance Workshop

SABA; Knowledge Services; Developing Job Aids for Peak Performance Workshop

Web Sites

Performance Technology Center's Propwashes	http://www.uscg.mil/tcyorktown/ptc/propwash.shtm
Coast Guard HPT / ISD Handbook	www.uscg.mil/tcyorktown/ptc/download/hpt/HPTParsed/HPTHandbookParsed.pdf
Coast Guard Training Advisory Council (CGTAC)	http://cgweb.uscg.mil/G-C/G-CCS/G-CIT/G-CIM/DIRECTIVES/CI/CI_1550_18.pdf
G-WTT-1 Website	www.uscg.mil/hq/g-w/g-wt/g-wtt/g-wtt-1/index.htm
Appropriate Delivery System(s) (Media Selection)	http://www.uscg.mil/tcyorktown/ptc/downloads/hpt/HPTParsed/chapter14.pdf
Sample JTA Report (Port Engineer EPSS)	http://cgweb.tcyorktown.uscg.mil/PortEngineer/Index.htm
<u>The Design & Development of Survey Instruments</u> , by Dr. James A. Pershing, PH.D	http://www.uscg.mil/tcyorktown/ptc/downloads/survey/jobaid.pdf
USCG Workshop Survey	http://www.uscg.mil/tcyorktown/ptc/downloads/survey/jobaid.pdf
Enlisted Performance Qualifications Manual (EPQM)	http://www.uscg.mil/ccs/cit/cim/directives/CIM/CIM_1414_8C.pdf
Coast Guard's Rating Force Master Chiefs (RFMCs)	http://www.uscg.mil/hq/mcpocg/1force/force.htm
Performance Technology Center (PTC)	http://www.uscg.mil/tcyorktown/ptc/index.shtm
Enlisted Performance Qualifications (EPQs),	http://www.uscg.mil/HQ/G-W/G-WT/G-WTT/G-WTT-2/TRAPOL/QUALS.HTM
COMDTINST 1554.1.	http://cgweb.uscg.mil/G-C/G-CCS/G-CIT/G-CIM/Directives/CI/CI_1554_1.pdf
TRACEN Petaluma	http://cgweb.tcpet.uscg.mil

PTC's Design and Development (Pm) Branch	http://www.uscg.mil/tcyorktown/ptc/add.shtm
Survey Samples.	http://www.uscg.mil/tcyorktown/ptc/downloads/survey-jobails.pdf
Media Selection Model (Appropriate Delivery System(s))	http://www.uscg.mil/tcyorktown/ptc/downloads/hpt/HPTPa rsed/chapter14.pdf