

**Task 9: Quick Reference Guide (QRG) Finalization and Evaluation (McCauley)**

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**Project Start Date:** FY2009

**Anticipated End Date:** FY2011

Requirements Statement
<p><i>Operational Shortfall or Knowledge Gap</i></p> <p>Two Quick Reference Guides were developed for use by tower and en route/oceanic Front Line Managers (FLMs) in 2006 and 2008, respectively. The QRGs were based on research that identified best practices for AT FLMs in those options. Completion of data collection for another QRG for TRACON FLMs will occur during this fiscal year. With the assistance of SMEs from all three areas, researchers will combine the three projects into a single QRG. The QRG will be designed to help AT FLMs supervise their employees more effectively. While some information is available that provides guidance about how to perform the job of an FAA FLM, not as much is available to assist them in the performance of their technical duties. It is hoped that providing FLMs with information that helps them supervise air traffic controllers will impact the overall safety of air traffic operations. It is necessary to evaluate the effectiveness and utility of the FLM QRG using the input of the target audience. To conduct this user feedback evaluation, all FLMs will be electronically surveyed to assess their perceived utility of the document in the performance of their job and elicit their input as to how future versions may be improved.</p>
<p><i>Benefit in Closing the Shortfall or Gap</i></p> <p>The consolidation of the three QRG documents into one guide useful to all FLMs in the performance of their job will provide FLMs with a single source resource for assistance. The collection of evaluative data from the intended users of the QRG will indicate whether the document is useful to and will be used by them. Information about the effectiveness and utility of the document can provide feedback that can be incorporated in future document revisions.</p>
<p><i>Description of the Desired Product</i></p> <ul style="list-style-type: none"><li>* Information from the three FLM projects will be combined into one QRG that can be used by all FLMs.</li><li>*A survey will be developed that elicits information from FLMs about the effectiveness and utility of the FLM QRG.</li></ul>

*Schedule*

The consolidation of the QRG will occur in FY 2010, with the document sent to FLMs also in 2010. The survey will be administered early in FY 2011 and analysis completed in the second quarter of FY 2011.

**Research Objective:** The purpose of this project is, first, to consolidate the three components of the Front Line Manager (FLM) Quick Reference Guide (QRG) (En route/Oceanic, Tower, and TRACON) and, second, to evaluate the target audience's perceived effectiveness of the QRG. A QRG task group will meet to refine the consolidation of the three documents in January of 2010 and recommend a dissemination methodology. Once the document has been disseminated, a feedback survey will be developed and disseminated to assess FLM perceptions of the utility of the QRG and provide recommendations for future improvement.

**Background:** The Quick Reference Guide identifying supervisory best practices for Operational Error prevention is intended to be a compendium of useful information for Front Line Managers (FLMs). The QRG was developed in three phases for each group of FLMs. The QRG for En Route FLMs was developed in 2006 and focused on general supervisory best practices used by FLMs in response to a variety of identified problems encountered in the areas of selection and assignment, skills and knowledge, motivation and incentives, and environment. The 2008 QRG for Tower FLMs incorporated the general supervisory best practices identified by the En Route study and added some situationally-specific best practices for Tower FLMs in the areas of coordination, communication, and memory. The third TRACON QRG study was scheduled to be completed in July of 2010, but was completed in the second quarter of FY10. It focused on exemplary FLMs in the TRACON environment by defining factors linking supervisor effectiveness to Operational Errors and identifying key management techniques for handling weather and developmentals.

While each of the QRG efforts focused on a different theoretical framework for the development of each QRG segment, the overall approach will yield a document that crosses several perspectives to arrive at a best practices guide applicable to a variety of settings. The unification of the three segments will bring the SMEs from each of the three settings used together with project sponsors to identify the best consolidation of information for maximum utility. This will document both overall management skills applicable to the ATC environment and some specific managerial applications for each of the distinct FLM groups.

A field evaluation of the organization, applicability, and utility of the QRG will provide the link to the target population. This mechanism will provide for user input to target revisions and provide direction for future enhancements to the Guide.

**Previous Activity on this Task:**

In FY09 there was a focus on developing a comparative two-phase survey to assess the extent to which exemplary FLM behaviors occurred prior to and after the distribution of the QRG, based

on the perceptions of the survey participant. The purpose of this effort was to determine if there was a documented change in these targeted exemplary behaviors, even though any change could not be directly attributable to the QRG. A survey was developed and entered into an electronic format, and the target population identified. Upon secondary review, sponsors determined that the requested survey was not going to be effective in eliciting candid responses from the subject pool due to the transparency of favorable responses.

An initial survey to determine the perceived utility and value of the QRG by the FLM target population, both as to the format and content of the QRG, was selected as an initial evaluative step. Sponsors requested a clarification of measurable outcome objectives to be specified at the time the task group meets to consolidate the three QRG documents. It is these outcome objectives upon which future evaluative efforts will focus.

**Proposed or Planned Research:** Upon the completion of the TRACON segment of the QRG, a task group will meet to decide on an effective methodology for the consolidation of the three QRG segments into one concise FLM reference document, which will be distributed to all FLMs. In FY11, the FLMs will be electronically surveyed to determine the perceived utility of the QRG in the performance of their jobs and elicit their input as to how future versions may be improved. Demographic information about survey respondents will also be collected to provide information as to the length of time the FLMs have been serving in that capacity. Upon task group or sponsor recommendation, additional objective information that may be related to FLM performance may also be collected.

**Research Question(s):**

1. What is the organization of the QRG that will make it most useful to FLMs?
2. How do FLMs perceive the effectiveness and utility of the QRG?
3. Do less experienced FLMs find the QRG more helpful than more experienced FLMs?

**Technical Approach:**

**Current Year:**

Current year activities include the consolidation of the three QRG documents into one QRG, the development of a user evaluative survey, and survey administration.

**Out-Years:**

Documentation of survey results will be compiled. Future research will focus on evaluation of impact goals established by FAA, which are clear, specific and measurable, and impact the program in terms of timing, magnitude, and durability of effects. The design and scope of this evaluative effort will be contingent upon specified goals.

Future research may focus on continued surveys to collect FLM recommendations concerning the QRG and any updates, as well as to assess the continued satisfaction with the format and utility of the QRG.

While the QRG is envisioned as a stand-alone resource for FLMs to support them in the performance of their jobs, the document may also be incorporated into a variety of supervisory/management training venues. The Guide’s targeted management skills applied to an ATC setting should facilitate the transfer of information in a learning environment for new or prospective FLMs.

**Air Traffic Resources Required:**

The consolidation of the three FLM research projects into one QRG document will require the input of SMEs from all three venues (en route, tower, and TRACON), as supported by SUPCOM. The survey will be administered to operational FLMs.

**Information Technology Resources Required:**

No anticipated technology resources are required for this task.

**Calibration:**

N/A

<b>FY10 Milestone Schedule</b>			
Description (for the initial proposal)	Proposed Start Date	Proposed Completion Date	Actual Completion Date
1. Review previous Quick Reference Guides, including TRACON.	1-2010	4-2010	1-2010
2. Develop a draft consolidated document containing the three components of the QRG in conjunction with task group	1-2010	4-2010	4-2010
3. Develop items for FLM QRG survey, including relevant demographic questions and FLM recommendations	3-2010	9-2010	
4. Review survey content with sponsors and finalize survey	9-2010	12-2010	
5. Obtain lists of FLM names and retrieve e-mail addresses for participants	11-2010	12-2010	
6. Get IRB approval to administer survey.	8-2010	11-2010	
7. Enter final version of survey into SNAP (internet survey software)	8-2010	11-2010	
8. Distribute survey to FLMs (this is contingent upon timely completion of document production and dissemination protocol)	12-2010	1-2011	
9. Conduct follow-up to the initial survey	1-2011	2-2011	
10. Compile survey information and produce report	3-2011	4-2011	

<b>FY10 Deliverables</b>		
Description	Proposed completion date	Actual completion date
1. Finalize QRG content (contingent on completion of customer reviews of consolidated document)	8-2010	
2. Finalize questionnaire addressing FLM assessment of the effectiveness of the QRG	12-2010	
3. Survey Documentation Report (FY11)	4-2011	
Supporting materials will be provided at the request of the AJP-61 Program Management. These include power point charts and briefing slides for TCRG meetings, abstracts for reports that don't already include them, quarterly reports, and text for the annual report summarizing the year's activities.	As needed	