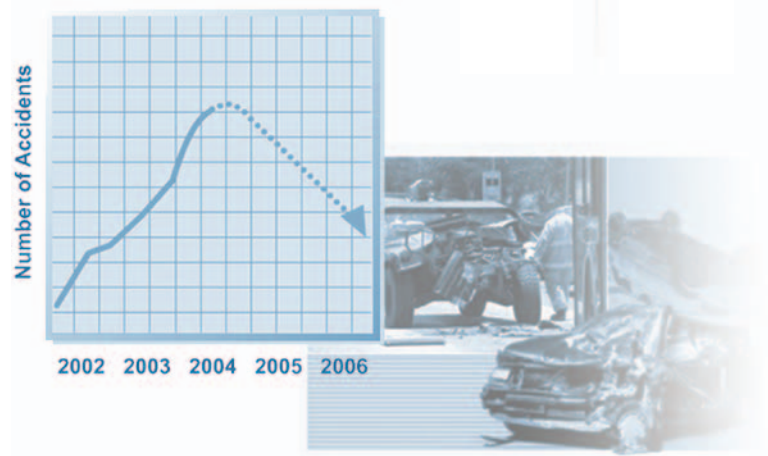


Supporting the Mishap Reduction Challenge



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Carney, Incorporated

The Mishap Reduction Challenge

The numbers speak for themselves – even in wartime, a disproportionate number of defense casualties result from preventable mishaps. The military services individually and jointly have recognized the challenge of integrating safety into the basic fabric of decisions and actions of both the leadership and the young men and women in the most “I am invulnerable” demographic. All of the services have engaged in problem analysis and initiatives to respond to Donald Rumsfeld's 2003 call for at least a 50 percent reduction in mishaps by the end of FY2005, and many of these initiatives have produced results.



These initiatives have resulted in a variety of training programs, software tools to support important processes, purchase of equipment that mitigates risk, consolidation of important information, and the

development of new channels and campaigns to distribute and communicate this information. Many more needed, individual initiatives are in the proposal stage and others have just been funded.

But a challenge remains. Although individual initiatives may chip away at the overall mishap rate, successful achievement of targeted reductions requires that safety awareness and safety as a priority be an integral and pervasive part of every action and decision in military life, on and off duty. Safety and risk management must permeate the everyday language and substance of mission performance and not be added as an afterthought.

As the modern accident causation model suggests, only a systemic, institutionalized culture change revolving around operational risk management and integrating safety considerations into the preparation, conduct, and briefing of all activities 24/7 will bring the desired results – add-ons and “Band-aids” simply will not achieve the ambitious goal set by the Secretary of Defense.

Efforts to facilitate the needed cultural change and create the environment and tools to maintain it can benefit from a performance impact-based approach.

Carney has developed this approach to provide the insights needed to plan and implement a comprehensive set of interventions that can support a universal, “all-the-time” result. When this approach is applied to the safety problem, safety will be integrated into every strategic decision, process, training event, and support procedure without standing apart or being relegated only to a separate briefing or comment or activity.

The Performance Impact-based Approach

Carney's performance impact-based design model takes an overall systems approach. It helps specify the optimum combination of actions and undertakings in the many dimensions needed to achieve a desired goal.

This approach first considers all the ways “outside” and “inside” forces impact upon an area of concern, either to restrict or enhance the desired results. This is a multi-dimensional analysis with the dimensions determined by the area of concern. For instance, in the case of safety challenges, we consider human factors (individual and organizational), environmental factors, operational factors, equipment factors, and the relationships among them.

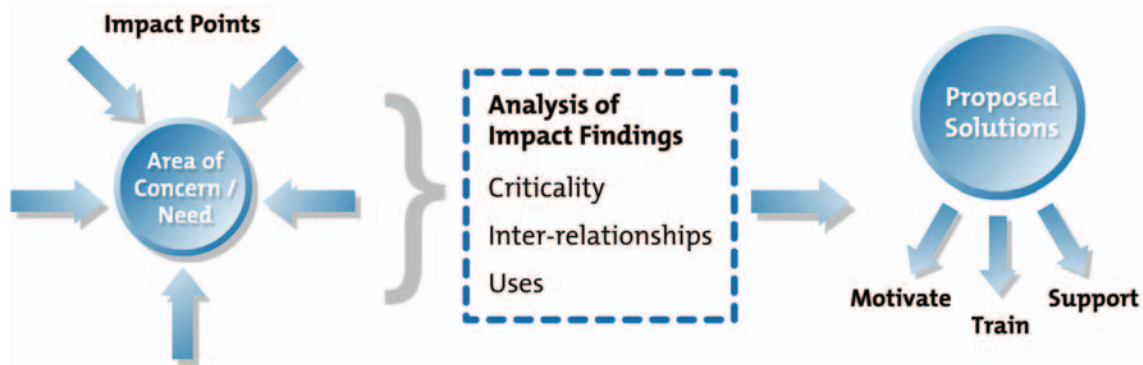


Once we identify how these factors impact upon the area of concern, we can then more clearly determine a number of things, including:

- Which factors are most critical to deal with
- How the factors overlap and/or influence one another
- How to make use of the various factors to create a positive result

The process enables us to envision the rich range of opportunities for improvement. For example, when looking at the behavior of individuals, we look at methods to train them (if they need to learn new concepts or procedures or guidance), to support them (if they need to have tools that make it easy to access and follow through on actions), and/or to motivate them (if they already can do something, but they need to want to).

Based on these insights, then, we develop a multi-dimensional plan for supporting the need, focusing on all of the key impact areas. We determine actions and



tools that support the goal and identify how they can be integrated into the fabric of operations as fully as is reasonable for the purpose.

Applying this Approach

In support of part of the U.S. Army Combat Readiness Center's response to the DoD accident reduction challenge, Carney, under subcontract to Chenega Technology Services Corporation, created an integrated solution that illustrates one application of performance impact-based design.

The Combat Readiness Center (CRC) had already created a number of important and well-conceived knowledge management tools to support risk management and safety analysis. Available through the Center's Army Knowledge Online site were tools including interactive real-time web-based databases for capturing, analyzing, and searching mishap data (including investigation findings and recommendations), online magazines documenting and highlighting the implications of recent mishaps in a personal story format, an interactive tool

for assessing private motor vehicle risk prior to serviceman leave, and a comprehensive set of techniques and interventions for mitigating private motor vehicle risks (including printable forms, signs, and checklists to support these interventions). Available on CD from the Center were additional software tools – one to provide structure and efficiency for documenting mission risk identification and analysis, and another to provide a template with sample content to support the Commander in creating a formal unit safety plan.

These knowledge management tools were a sophisticated and well-supported set of resources. However, the value of all the useful and usable data and templates would be minimal without the other part of the knowledge management equation – making the potential users of the information aware of the existence of the tools, their benefits and capabilities, and information, and how to access and use them.

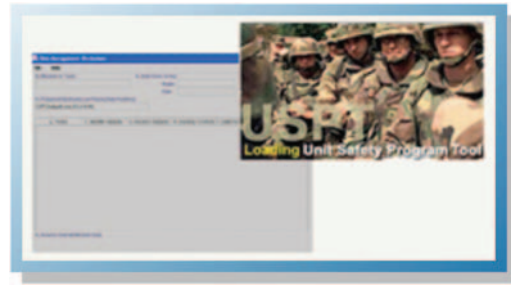
The CRC understood the critical role of the Commander, who would be a key user of much of the online safety knowledge, in establishing an integrated safety

culture. Further, they understood the need to ensure that all Commanders comprehend and were committed to this outcome, that they understood the required safety processes and procedures for which they were accountable and the associated regulations, and that they had awareness of the existence of and how to use the resources available to support them in meeting their safety obligations. Finally they understood the pressures and demands on Commanders and the costs and disruption caused by TDY for training.

Given all of these challenges, and focusing on the role of the Commander, Carney worked with the CRC applying a performance impact-based approach. The result was the accelerated creation of an interactive online self-paced program made available over the internet that is now required for Army Commanders. Within the first five months online, the course has been completed by some 3,000 soldiers.

The program includes about 7 hours of highly interactive multimedia training presentations that explain, demonstrate, and then provide opportunities for Commanders to walk through and practice key analysis and decision processes while integrating safety concerns. The single program includes the following additional features that address other dimensions of the perceived problem:

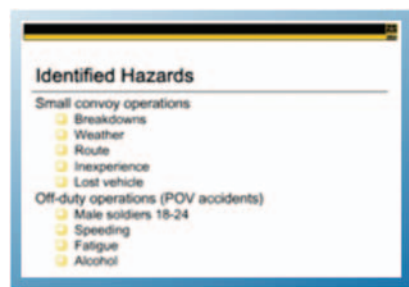
- Integrated into the presentation are demonstrations of and practice on the tools available from the Center, both on the AKO and on CD, as well as examples of how the tools support the Commander in fulfilling key responsibilities.



- The program makes use of strong images and current, real-life stories to bring home the real-life impacts, enhance motivation, and emphasize the importance of integrated safety.



- Commanders are provided additional tools directly from within the course, including a downloadable presentation template for required safety briefings and printable information summaries to support Commanders in decision making.



Carney, a Partner in Mishap Reduction

Carney, Incorporated has numerous knowledge solutions experts with the credentials and experience to help our clients navigate from need to solution, using the performance impact-based design approach. In applying this approach to the mishap reduction challenge for the Army, we have become quite familiar with the important regulations and processes and procedures that underlie and can help to effect the military culture change needed to meet Secretary Rumsfeld's goal. Building on this understanding, we stand ready to apply our organizing, probing, concept distillation, and integrating skills in a focused, outcome oriented, fast and flexible process, to design and create custom integrated solutions to address the many dimensions of the safety challenge for DoD organizations.

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