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RESEARCH, DEVELOPMENT & ENGINEERING CENTER

U.S. ARMY CHEMICAL AND BIOLOGICAL DEFENSE COMMAND

ERDEC-SP-065

**VIRTUAL TEAMING IN A LOW TRUST,
HIGH RISK ENVIRONMENT
CASHPAC: A SUCCESS STORY IN THE MAKING**

George E. Collins, Jr.
Carol A. Eason

OPERATIONS DIRECTORATE

July 1998

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19980807 046



Aberdeen Proving Ground, MD 21010-5423

DTIC QUALITY INSPECTED 1

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REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave Blank)

2. REPORT DATE

1998 July

3. REPORT TYPE AND DATES COVERED

Final; 92 Feb - 98 May

4. TITLE AND SUBTITLE

Virtual Teaming in a Low Trust, High Risk Environment
CASHPAC: A Success Story in the Making

5. FUNDING NUMBERS

NONE

6. AUTHOR(S)

Collins, George E., Jr., and Eason, Carol A.

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

DIR, ERDEC, ATTN: SCBRD-ODR-S, APG, MD 21010-5423

8. PERFORMING ORGANIZATION
REPORT NUMBER

ERDEC-SP-O65

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSORING/MONITORING
AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

This publication was designed to share the Safety Office's experience with the virtual teaming concept. Virtual teaming is being used by the U.S. Army to develop chemical agent policy. The U.S. Army has been able to develop policy using chemical agent experts that are geographically dispersed throughout the United States. This milestone was accomplished in a low trust, high-risk environment without an increase in U.S. Army staff. The virtual teaming concept uses empowerment, small teams, the ability to create a vision, partnering, and process focusing.

14. SUBJECT TERMS

Virtual teaming
Chemical agent safety policy
EmpowermentCASHPAC
Processes
Virtual organizations

15. NUMBER OF PAGES

12

16. PRICE CODE

17. SECURITY CLASSIFICATION
OF REPORT
UNCLASSIFIED18. SECURITY CLASSIFICATION
OF THIS PAGE
UNCLASSIFIED19. SECURITY CLASSIFICATION
OF ABSTRACT
UNCLASSIFIED20. LIMITATION OF ABSTRACT
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PREFACE

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VIRTUAL TEAMING IN A LOW TRUST, HIGH RISK ENVIRONMENT

CASHPAC: A SUCCESS STORY IN THE MAKING

INTRODUCTION

This article is about the Army's use of virtual teaming in developing safety policy. Our purpose in writing the article is to describe how we have been able to develop a process in which Army safety policy is being developed using experts that are geographically dispersed throughout the U.S. We have accomplished this milestone in a low trust, high-risk environment without an increase in Army staff. This article describes the journey we have taken and will provide readers with insight into the complexity of such an endeavor.

Virtual teaming is a term that has grown quite popular in the business vocabulary. For many, the term conjures up visions of empty offices with dim lights and futuristic computer technology. Within the U. S. Army, the term "Virtual Teaming" has taken on a new meaning in the development of chemical warfare agent safety and occupational health standards. Since 1992, the U. S. Army Safety Office has used virtual teaming to revolutionize the business of standards development and to move us one step closer to a virtual safety office. There are six key lessons we have learned from this experience:

1. Vision
2. Empowerment
3. Small teams are key
4. Success breeds success
5. Process focus
6. Partnering

THE VISION

It is important to understand the environment in 1992 and the processes that were in place at the time. The Army is the lead service for chemical agent storage, demilitarization and defense related research and development within the Department of Defense. To accomplish this mission, soldiers and civilians perform a wide range of operations involving chemical agents that were originally developed for use in military operations to kill, seriously injure, or incapacitate persons. (It should be noted that the U.S. has renounced the use of such chemical agents. The chemical agents currently in storage within the U.S. are either in obsolete munitions undergoing/awaiting destruction or in small quantities used for defensive research programs.) The most publicized example of these lethal materials is a family of compounds known as nerve agents. These compounds seriously disrupt the human nervous system and can cause serious injury at very low airborne concentrations. In an effort to ensure the safety of the Army work force and private citizens living in the vicinity of our installations, the Army publishes standards, based on toxicological and scientific research and investigations.

In 1992, the Army Surgeon General established much lower Immediate Dangerous to Life and Health (IDLH) standards for work with chemical agents. Those new standards required a complete revision of U. S. Army Materiel Command (AMC) safety and occupational health standards related to monitoring, protective clothing, ventilation and operating procedures (AMC had proponency for the Army chemical agent safety program in 1992). The conventional approach to such a problem would have been to mandate the AMC Safety staff to rewrite and forward the document to the AMC Safety community for comment before ultimately publishing the document as an AMC regulation. This approach from start to finish normally takes approximately five or six years. A first draft of an AMC regulation usually takes about two years! The AMC Safety Director at the time, Mr. John Rankin, took a different approach and instituted a new plan. He chartered a team of chemical agent safety and health professionals and called it the Chemical Agent Safety and Health Policy Action Committee (CASHPAC). He gave leadership of this team to the Army's Edgewood Research Development and Engineering Center (ERDEC) which is a subordinate activity to the command. The CASHPAC was given the job of completely rewriting AMC chemical agent safety guidance.

EMPOWERMENT

In those early days there was some apprehension over having anyone outside of the "Headquarters" proposing policy. The issue centered on trust and included concern over whether highly trained experienced safety professionals located at the chemical activities around the Army would do the right thing if given the chance. The question was would these safety professionals develop guidance that was sensible, practical, and technically accurate or would the guidance merely relax the existing standards to make life easier? Mr. Rankin withstood the controversy, and with the support of senior Army safety officials such as Mr. Raymond Fatz, he encouraged the concept and developed a charter for implementing this new team. He believed that the Command's most technically competent chemical agent safety professionals resided at the depots, R&D centers and chemical demilitarization operations around the country. He trusted the community to do what was right. From his trust grew a process and virtual organization that is now being used as a model for restructuring many areas within AMC.

SMALL TEAMS ARE THE KEY!

The original CASHPAC team was made up of a small group of safety professionals that represented R&D, depot operations, and demilitarization. The membership was defined by the approved charter, which was prepared by the ERDEC. This document was very important because it outlined the team's responsibilities, roles, and mode of operation. The charter also contained the signature of an implementing authority and "champion", in this case a Major General George E. Friel. This champion was critical to maintenance of a team especially in a low trust environment. While not a lengthy document, it was and is now necessary in order to keep the team focused on the purpose.

It was also critical that the team tackled an issue or problem that had a high probability of success. Knowing this, Mr. Rankin assigned the CASHPAC the job of rewriting the AMC

chemical agent safety regulation. This assignment was chosen due to its importance and because the team was composed of individuals with the appropriate skills to successfully complete this task. The working group spent the entire summer of 1992 rewriting each of the chapters. During this process the DA Safety Office, Mr. Fatz, decided that there would only be one Army level chemical agent safety regulation. Mr. Fatz asked the CASHPAC to continue their process but this time on behalf of the Army.

After three months, the first draft was completed and staffed worldwide as an Army regulation and pamphlet (AR and DA PAM 385-61). Hundreds of comments were received and the team worked through each one of the comments. In November 1992, the Army published an interim regulation and pamphlet. This document brought the Army into compliance with the Army Surgeon General's IDLH standard and the entire process took less than six months! A key to the team's success at this stage of development was its small size. A core of seven personnel were used to keep the process on track and others were brought in for their expertise. These seven individuals were technically competent, represented major chemical agent related business areas within the Army, and possessed basic teaming skills (consensus building, facilitating and importance of minority opinions). It is important to keep in mind that the seven individuals were geographically dispersed in different parts of the country and reported to separate Army commands with different mission areas and focus. Each individual had to set their command's specific orientation aside when making decisions. The needs of the chemical agent community as a whole had to be the basis for each decision. The broad focus for decision making was one key to the CASHPAC's first success! The other key was the complete support of Mr. Fatz. Mr. Fatz supported all of the CASHPAC's decisions, shared his vision of the chemical agent safety program, and made himself readily accessible to the team.

SUCCESS BREEDS SUCCESS

The initial success and visibility of the CASHPAC did not come automatically. The small core of CASHPAC members aggressively marketed our successes and capabilities to all that would listen. We described our story to the entire chemical community and senior leadership within the Army in many forums to include safety conferences and at related working group meetings. To supplement these efforts, we created an Internet Web Site and produced numerous articles in Army publications. These efforts paid off by opening up a variety of possibilities in such areas as radiation protection and explosive safety. Policy Action Committees (PACs) were formed in these areas as well as others. In the chemical agent safety business, we also received recognition for what we had done and the timing coincided with the formation of a new Major Subordinate Command within AMC, the Chemical and Biological Defense Command (CBDCOM). With this new command came a variety of high-risk safety and health issues that needed immediate attention. Initially, the CASHPAC floundered after the first success. The team wanted to help resolve the new Command's safety and health issues, but they were not officially recognized as part of the Command. This was due to the non-traditional structure of the team. However, the new CBDCOM Commander recognized the unique nature of this team. MG Friel, Commanding General of CBDCOM and the Deputy Commanding General AMC for Chemical and Biological Matters, called on the CASHPAC to serve as his technical support working group for chemical agent safety issues. Once we were chartered to do this, a flood of

actions began to flow in our direction. We found another key to success was having a strong champion. The champion must have a commitment to the team mission, recognize team success and assist when the team failed. MG Fried successfully met these needs by reading and approving meeting minutes and providing encouragement not assignments. He annually met with the team to discuss his vision and encouraged the team to continue in efforts to "break the mold." Also, when asked by some within the Army to cease our efforts, MG Friel via phone calls to senior officials and through memorandums defended the team positions.

By this time the CASHPAC membership had grown to about a dozen members who met quarterly. Due to the urgency of the General Officer actions and the fact that we were not geographically collocated we saw the need to work actions electronically. Not only were we able to staff actions with members around the U. S., but we also created an electronic bulletin board that could be used to express concerns and to obtain answers to tough questions from the top professionals in the field.

PROCESS FOCUS: AN IMPORTANT ELEMENT TO SUCCESS

During the many years of the committee's existence we have dared to tackle issues that were once thought impossible to resolve. The approach taken was to look at process solutions to our problems. Instead of looking for ways to solve a problem at a particular location, we developed processes that would help others within the Army with similar concerns. The most noteworthy example of this effort was the work done by the Commercial Protective Clothing Joint Working Group.

For years chemical agent activities were forced to use protective clothing and equipment that were not tailored to their operations and that did not meet the newest and best technology. This CASHPAC working group took on the action to develop a process that would allow chemical activities to find protective clothing that would better meet their needs and then submit the clothing, associated test data and risk assessments to a team of experts for review and concurrence. This process was developed and the first suit was approved in less than six months. As a result, the chemical agent community is now able to find the best possible technology that industry has to offer to meet specific mission needs. All of this was done without additional research and development costs to the Army.

PARTNERING

The next milestone we had to deal with was growth in membership. Success was drawing many to the quarterly meetings. The meetings could no longer be managed as a working group and though we attempted to discourage some from attending (this was a mistake and created some animosity) we settled into a format that allowed formal presentations that were followed by discussions. Two major membership initiatives improved the quality of the produced standards. First, the addition of the Army's Medical Command through the USA Center for Health Promotion and Preventive Medicine (CHPPM) allowed for industrial hygiene to be included. The second initiative was to include personnel from all Army chemical agent related activities.

Traditionally, safety professionals developed safety policy and industrial hygiene/health policy was developed by industrial hygienists. Often the policies developed by these professions were conflicting and resulted in operational problems for the chemical agent activities. The inclusion of CHPPM ensured that policy development conflicts were eliminated and the quality of safety and health guidance were enhanced. The inclusion of personnel from Army chemical agent related activities was significant because the traditional Army hierarchy had never before solicited these activities to participate as equal partners in policy development or problem solving. The presence of personnel from Army activities that actually perform chemical agent operations has brought a sense of reality to the standards we have developed. These highly trained professionals bring decades of experience in working with lethal compounds and resolving complex problems. Not only do these professionals benefit from the process they support, but they also get the latest word on the direction in which policy is headed and work with to resolve activity concerns at the earliest possible stage. These additional members significantly enhanced the quality of the safety and occupational policy the committee could develop for the Army. Two other noteworthy additions to the committee included the Army training organizations and the Army Inspector General (IG) Office. The inclusion of these two entities ensured the latest policy changes and development were incorporated into training in a timely fashion and that IG representatives could perform their assessments with the full knowledge of chemical agent safety regulatory intent.

As we moved into our fourth year of existence (1996), quarterly meetings were drawing 40 attendees and our e-mail distribution listing included over 70 addressees. In an effort to continue our effectiveness we had to establish smaller working groups that were centered on specific aspects of the chemical agent safety program. For example, one of the critical systems in a chemical agent operation is the ventilation system (both local and general area). We chartered a ventilation-working group made up of safety and industrial hygiene professionals who design and work with ventilation systems. The group has met periodically and corresponds electronically between meetings. Efforts by this group are briefed at each general CASHPAC session and all proposed standards are coordinated with CASHPAC members (usually through electronic mail) prior to submission to Army Safety for implementation. This approach brought experts together to solve a particular problem and returned them to their primary mission within their home organization. This eliminated the need to have a staff for the function and kept the working group members active in their profession. As of this writing, the following CASHPAC working groups are in place: Commercial Protective Clothing, Army Chemical Agent Safety Policy, Building Demolition, Monitoring/Ventilation, Individual Protective Equipment and Clothing, and Commercial Respiratory Protection. All are focused on an aspect of the chemical agent safety mission. All have technically competent professionals supporting the group who have other jobs their profession. Only when there are issues to be discussed do these groups meet. Once an action is completed, members return "home". This arrangement allows Army safety officials to efficiently manage a high quality chemical agent safety program without having to obtain the resources to do it! In essence, we are truly doing more with less and have created a virtual organization that exists to serve the needs of the Army staff and the chemical activities that must live with the standards that are created.

THE FUTURE

That brings us to 1998 and a view of where we must go from here. In reviewing Hammer in "Beyond Reengineering", it is clear that for the CASHPAC to continue in its success, our long term strategy must be to:

- Focus on improving the quality of our processes,
- Look for additional experts that can further improve the quality of the policy we develop,
- Continue creating value for the customers that have come to depend on the services we provide.

The environment we find ourselves in is extremely volatile. Commands within the Army often reorganize and our work force continues to shrink at record levels even in this very sensitive area. The CASHPAC is a virtual organization that has stood the test of time and has thrived in what can be considered a low trust, high-risk environment. While the magnitude of the dollars and lives that have been saved by the existence of the CASHPAC can probably never be quantified, one fact remains clear; if the Army is going to continue to manage high risk programs and simultaneously decrease the resources needed to get the job done, the only solution is to adopt and support other virtual teaming CASHPAC-like initiatives.