THE UNDER SECRETARY OF DEFENSE



TECHNOLOGY

3010 DEFENSE PENTAGON WASHINGTON, DC 20301-3010

0 1 OCT 2002

The Honorable Carl Levin Chairman, Committee on Armed Services United States Senate Washington, DC 20510-6050

Dear Mr. Chairman:

Pursuant to Section 1112 of The National Defense Authorization Act for Fiscal Year 2001, enclosed is the Department of Defense Interim Report on the Defense Employee Work Safety Demonstration Program.

I am also providing a copy of this report to the House Committee on Armed Services.

Sincerely, 2(. Ulu

E. C. Aldridge, Jr

Enclosure: As stated

cc: Honorable John Warner Ranking Member Department of Defense Report to Congress Defense Employee Work Safety Demonstration Program



Interim Report

Submitted to:

Committees on Armed Services for the Senate and the House of Representatives

July 2002

Executive Summary

The Department of Defense Employee Work Safety Demonstration Program (Public Law 106-398, section 1112) consists of pilot studies at Department of Defense (DoD) military installation and DoD agency sites to determine if implementation of private sector best safe work practices can reduce the civilian worker lost workday injury rates and the associated direct and indirect costs. Twelve (12) Department of Defense installations and sites were selected to participate in the pilot study. The private sector safe work practices chosen by the pilot sites include elements of performance-based safety programs, elements of behavior-based safety programs, metricbased safety programs, and integrated safety management programs.

Funding to the demonstration sites and implementation of private sector best practices is currently in progress. However, the program did not start on the date required by the law because funding was not made available until September 2001. The September 11 attack limited ability to travel and restricted access to military installations. The combination of delays put the program approximately one year behind its scheduled completion date. The effort to implement best practices, affect cultural change, and demonstrate measurable improvements will take time beyond the year allotted by the Public Law. Therefore, we recommend extending the program to the end of fiscal year 2003 (FY 2003).

An initial baseline assessment of the safety programs at each site was completed between October 15, 2001 and December 15, 2001. These studies establish the starting point for the program. The baseline assessment included a review of safety program policy, directives, regulations and instructions; an assessment of the site safety culture; assessment of the lost workday injury rate and a comparison of rates for FY 2001, FY 2000, and FY 1999; and the direct and indirect cost associated with all lost workday injuries and illnesses. This programmatic baseline was accomplished through document reviews, personnel interviews and work observations. Compliance with safety program requirements and the safety culture was assessed through direct observation of worksite activities and documented in the baseline document. Analysis of the information gathered during the baseline is under review. Additionally, interim and final reviews of each site will be performed during, and at the conclusion of, the pilot program. These reviews will be compared with the initial baselines to further determine the extent of programmatic and cultural changes.

The direct cost data (Department of Labor charge-back) for the pilot sites represents a cost of \$34 million. When considering a conservative estimate of indirect costs, there is an overall potential cost of \$103 million. The potential cost avoidance exceeds \$137 million for the 12 selected sites.

A web-based online reporting system has been developed to gather and share information for the DoD Employee Work Safety Demonstration Program. The reporting system will track implementation of pilot site best practices, as well as provide metric and status reporting during the life of the demonstration program.

TABLE OF CONTENTS

1.0	Background	4		
2.0	Defense Employee Work Safety Demonstration Program (DEWSDP) Overview			
3.0	0 Pilot Sites Participating in the DEWSDP			
4.0	Pilot Site Program Industry Best Practice Initiatives	6		
5.0	Baseline of FY 1999, FY 2000, and FY 2001 Injury and Cost (Direct and Indirect) Data	9		
5.1	Department of the Army Baseline Data	12		
5.2	Department of the Air Force Baseline Data	14		
5.3	United States Navy Baseline Data	18		
5.4	United States Marine Corps Baseline Data	18		
5.5	Defense Logistics Agency (DLA) Baseline Data	20		
5.6	Defense Commissary Agency (DeCA) Baseline Data	22		
6.0	How the DEWSDP Differs from Previous Efforts to Improve DoD Safety	24		
Appe	ndix 1 - Public Law 106-398, Section 1112	27		
Appe	ndix 2 - References			
Appe	ndix 3 – Operations Plan Phase I			
Appe	ndix 4 - Operations Plan Phase II			
Арре	ndix 5– Definitions			

1.0 Background

The Fiscal Year 2001 National Defense Authorization Act, Public Law 106-398, section 1112, directed the Secretary of Defense to establish a Defense Employee Work Safety Demonstration Program (DEWSDP). The purpose of the program is to determine if the use of the private sector "best practices" will improve the DoD employee work safety record and reduce cost. It was envisioned that significant savings could be achieved to apply to force readiness or improving the infrastructure of DoD operations and facilities/agencies. The requirements of the Fiscal Year (FY) 2001 National Defense Authorization Act are included in this report (Appendix 1).

At the end of FY 2001, there were 76,567 DoD appropriated funded civilian employees receiving worker compensation. The annual direct cost of these claims (money paid by the Department of Labor (DOL) Office of Worker Compensation and charged-back to DoD) is over \$614 million (Appendix 2, Ref. 3). This does not reflect indirect costs, costs for injuries to military or non-appropriated personnel or loss of any physical resources. In addition, most of these civilian lost workday cases represent individuals who may impact force readiness.

The Deputy Under Secretary of Defense, Installations and Environment (ODUSD) (IE) SOH, assigned The Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health) as the contracting Executive Agent (EA). The Public Law 106-398, section 1112, authorized the expenditure of \$5 million and required a start date no later than, 180 days after the enactment of the Act, and termination of the program on September 30, 2002. However, the program start was delayed beyond the 180 days because funding was not provided until late FY 2001, and the tragedy on September 11 caused further delay. The lack of funding delayed solicitation of contract support for the installation baseline reviews, development of the web site for tracking and reporting, and the implementation at demonstration sites of their selected private sector best practice.

An operation plan (Appendix 3) was developed that outlined the program purpose; provided for oversight and management; involved the safety and health organizations from the Military Departments and Defense Agencies; established the reporting structure; and provided for the distribution of funds. This plan provided initial program funding of \$1,000,000 that was executed and contained provisions to distribute \$4,000,000 on August 1, 2001, for the program implementation and contract support. This plan was revised (Appendix 4) to create a second phase for projected distribution of funds, and to establish dates for reporting.

2.0 Defense Employee Work Safety Demonstration Program (DEWSDP) Overview

The Fiscal Year 2001 National Defense Authorization Act provides for the DoD to initiate a Defense Employee Work Safety Demonstration Program (DEWSDP) at designated DoD service and agency installations and stores ("sites"). These sites were tasked with employing proven private sector models that improve worker safety and reduce associated injury costs. In accordance with the law, the Secretary of Defense directed that a set of Military Department sites and Defense Agencies from among those listed in the Federal Worker 2000 Presidential

Initiative be selected for this program. Accordingly, two sites were selected from each of the Military Departments (Army, Navy, Marine Corps, and Air Force) and two sites were selected from the Defense Logistics Agency (DLA), and two from the Defense Commissary Agency. With DoD concurrence, DLA selected two of its best field activities to further demonstrate that integrating industry best practices and including leading indicators could significantly improve the best of programs. Additionally, the Air Force did not have any sites on the Federal Worker 2000 list. Their selection was based on the requirement that two installations from each of the Armed Forces would participate and determine whether proven private sector models can further improve worker safety and reduce cost.

Key components of the DEWSDP include:

- 1. Baseline survey of the demonstration sites. Conduct baseline reviews or "snapshots" of each demonstration sites' key programs and processes that can have an impact on workplace injuries, illnesses, costs, and performance.
- 2. Implementation of private sector "Best Practices." Select and implement private industry procedures, processes and practices that will provide a positive impact on safety performance and cost. Individual private sector contractors will support and assist the demonstration sites to select and implement the contractor's best industry practices.
- Analysis of civilian accident data and costs. During the baseline survey, conduct an analysis of the civilian lost workday injury rate and compare the lost workday injury rates for FY 2001 with FY 1999 and FY 2000. Note: Direct costs associated with all civilian lost workday injuries and illnesses will be captured and indirect costs will be estimated using a conservative multiplier of three (3), in accordance with Occupational Safety and Health Administration (OSHA) guidance (Appendix 2, Ref. 4). This multiplier was based on the average cost of a civilian compensation claim that OSHA recommends between 1.1 and 4.5.
- 4. Pilot Program reporting. Develop a web-based online reporting system to facilitate reporting for the duration of the demonstration program. The reporting will provide information on leading and lagging indicator metrics, and track progress on implementation of the private sector best practice.

An example of some leading and lagging metrics to be included on the web:

- Direct Costs and Indirect Costs for Injuries and Illnesses (lagging)
- Total Case Rates (TCR) and Lost Workday Case Rates (LWDI) (lagging)
- Observation Survey Rate and Safe Behaviors Rate (leading)
- Safety Perception Survey Response Rate (leading)
- 5. Completion survey and reporting (Demonstration Project). Conduct a final review at the end of the demonstration program (September 30, 2002 established by the law). The Secretary of Defense will issue a final report to the Congress, which includes an assessment of the pilot program and recommendations.

3.0 Pilot Sites Participating in the DEWSDP

In accordance with the requirements of Public Law 106-398, section 1112, the installations, agencies, and stores chosen to participate in the DEWSDP were selected from the Federal Worker 2000 Presidential Initiative (with the exception of the Air Force and DLA sites). The selection process was identified during a planning workshop held May 29-31, 2001.

The criteria identified to select the pilot sites included: Sites on the Federal Worker 2000 list; Sites with high injury rates based on total case rates (adequate base population); and Sites with a reasonable military and civilian population size (ease of implementation vs. target population size). DeCA sites on the Federal Worker 2000 list specifically included the commissaries at Fort Bragg, North Carolina and Wright-Patterson Air Force Base (AFB), Ohio. However, individually, these stores do not have a significant population of civilian workers for statistical analysis. Therefore, participation was expanded to include other stores within their same organizational Zone to obtain this significant population (>1000 workers).

Criteria identified to exclude sites included: Exempt installation/activity if undergoing facility closure (base realignment and closure or out-sourcing considerations); Exempt installation/activity if already meeting FY 2004 target goals; Exempt installation/activity if they are undergoing an A76 transition (Civilian employees are rolling over to a private contractor).

Based on the identified criteria, each service and agency selected the following pilot sites:

<u>U. S. Army</u> Ft Bragg - NC Watervliet Arsenal - NY

<u>U. S. Marine Corps</u> Camp Lejeune - NC Camp Pendleton - CA

<u>Defense Logistics Agency</u> Defense Supply Center - Columbus, OH Defense Supply Center - Richmond, VA <u>U. S. Navy</u> NAF Key West - FL NAS Kingsville - TX

<u>U. S. Air Force</u> Hill AFB - UT Tinker AFB - OK

Defense Commissary Agency (DeCA) Zone 29 Commissaries (Incl. Ft Bragg) Zone 27 Commissaries (Incl. Wright-Patterson)

4.0 Pilot Site Program Industry Best Practice Initiatives

In accordance with the requirements of Public Law 106-398, section 1112, each of the Military Department and Defense Agency demonstration projects are required to incorporate those best practices that have documented success in private industry, the Government, or those identified in published research. The best industry practice selected should include those practices that contain elements that provide for management leadership and employee involvement, worksite activity analysis, hazard identification, control or prevention, and training. The best work safety practices selected are listed in **Table 1**.

Site	Selected Private Sector Best Practice
USA - Watervliet Arsenal - NY	DuPont Program
USA - Ft Bragg - NC	DuPont Program
USAF - Hill AFB - UT	Voluntary Protection Program
USAF - Tinker AFB - OK	Integrated Safety Management
USN - NAF Key West - FL	Integrated Safety Management
USN - NAS Kingsville - TX	Voluntary Protection Program
USMC - Camp Lejeune - NC	Integrated Safety Management
USMC - Camp Pendleton - CA	Voluntary Protection Program
DLA - Richmond - VA	Voluntary Protection Program
DLA - Columbus - OH	Voluntary Protection Program
DeCA – DeCA Zone 27	Integrated Safety Management
DeCA – DeCA Zone 29	Integrated Safety Management

Table 1: Best Work Safety Practices

Summary of the best practices:

DuPont Program – The DuPont Management System reduces injuries, saves lives and improves performance through a holistic safety management process. A unique, dynamic, customizable process drives safety performance through leading indicators that are measured, analyzed, and communicated throughout the organization.

The DuPont Management System Program is enhanced with an information infrastructure that captures and analyzes metrics and process changes that provide positive feedback of safety integration. The information infrastructure includes an integrated communications effort that provides knowledge to all of the members of the organization, and informs management, surrounding organizations, and communities of the changes in safety culture that are occurring.

The DuPont process is built on the principle that safety is everyone's responsibility, driven by a strong leadership commitment to an enhanced safety culture.

Integrated Safety Management - Westinghouse Safety Management Solutions (WSMS) utilized Department of Energy's Integrated Safety Management (ISM) Program. It is a systematic approach to integrating safety into workplace planning and execution. ISM combines all the elements of environment, safety and health into one system focused on accomplishing work safety. ISM uses five core functions and eight guiding principles to ensure safety is integrated into all work activities. The core functions are: define the scope of work, identify and analyze hazards, develop and implement controls, perform work safely and feedback and improvement. The eight guiding principles include: line management responsibility for safety, clear roles and responsibilities, personnel competence, balanced priorities, identification of safety standards and requirements, controls tailored to hazards, operations authorization to perform work, and worker involvement. Leadership and worker involvement in the processes are essential attributes of the ISM system.

Voluntary Protection Program (VPP) – The Voluntary Protection Program (VPP) is designed to recognize and promote effective safety and health management. Under the VPP, management, labor, and OSHA establish a cooperative workplace relationship.

- Management agrees to operate an effective program that meets an established set of criteria
- Employees agree to participate in the program and work with management to ensure a safe and healthful workplace
- The goal is to achieve OSHA VPP certification which reduces OSHA surveillance

The VPP concept recognizes that compliance enforcement alone can never fully achieve the objectives of the Occupational Safety and Health Act. Good safety management programs that go beyond OSHA standards can protect workers more effectively than simple compliance.

The co-developed DLA/Logistics Management Institute (LMI) Synergy Action Plan transports a management system composed of best practices from successful OSHA Voluntary Protection Programs and successful corporate programs to the next level. It makes facility-specific Safety Action Plans and performance metrics part of the organization's strategic planning process. As part of the organization strategic plan, each facility must develop an Action Plan. Each Action Plan consists of facility-specific Safety and Occupational Health (SOH) performance metrics. Action Plan metrics consist of leading indicators that focus attention on prevention, which is different from the lagging indicators used in the Work Safety Demonstration reporting. A SOH program based on metrics means the facility will focus efforts on performance measures and leading indicators. Such a focus helps to clarify the target, and provides periodic feedback on whether you are closing in on the target (or not). A focus on performance measures also helps commanders and program managers assess their work plans, priorities, and budget.

JJ Keller, S & H Consulting Services, Star Consulting, MELE Associates, and Zoldak Group Inc. are providing on-site assessments, developing safety program element guidance and training management and workers to further enhance injury reduction. The Zoldak Group Inc. Facility Management Assistant is a risk-based methodology and software tool that establishes a collaborative environment for risk management. It supports all five steps of Operational Risk Management (ORM) and all data collection, collaboration, and analytical elements of the OSHA Voluntary Protection Program (VPP).

The Technology TEAM Inc. (TEAM) is providing program management support to the Deputy Under Secretary of Defense, Installations and Environment (Safety and Occupational Health) (DUSDIE (SOH)). TEAM is providing technical oversight for the program and developed a web-based online reporting system. This system tracks implementation of pilot site best practices, metrics, and status reports during the life of the demonstration program.

5.0 Baseline of FY 1999, FY 2000, and FY 2001 Injury and Cost (Direct and Indirect) Data

As required in Public Law 106-398, section 1112, injury and cost data for FY 1999, FY 2000, and FY 2001 has been collected for the pilot sites and is presented in this report.

The baseline assessment teams identified and collected injury and illness lost workday and cost data (direct and indirect). Information in this section was collected from the safety and health departments, the human resources (compensation program administrator) department, and the payroll and accounting department. This information will be evaluated and compared against data collected by the Department of Labor (DOL) injury and illness reporting system.

It is noted that definitions and data collection policies, procedures and systems for injury and illness data, and cost data varies among the Military Departments and Agencies. The different functions (safety, health and personnel) within the Department or Agency have different roles and responsibilities for the collection of injury, illness and cost data and use the information differently. At some sites, the Safety office investigates and reports work-related injuries (both appropriated and non-appropriated workers) and the Occupational Health office investigates and reports work-related illnesses. However, the Human Resources (personnel) office has responsibility for managing the civilian workers compensation program and manages all compensation claims. The safety guidelines are very specific for accident reporting and require that the injury must occur on duty while performing assigned work duties. However, many of the lost work day cases that result in a Federal Employee Compensation Act (FECA) claim are incidental to the worksite and do not meet the safety criteria for reporting through the safety accident reporting system. Therefore, lost time injury rates reported by safety are different than those reported by the compensation office. Additionally, the safety and health functions use estimated costs and estimate the number of lost workdays for reporting injuries and illness. The Human Resources function monitors all direct cost for all injury and illness compensation claims. However, the only direct cost information available is from the DOL, who charge-back to the DoD component using the old fiscal year (July 1 to June 30). The Secretary of Defense has initiated a Department-wide effort to capture lost time for injuries. The Secretary's initiative has collected continuation of pay and leave without pay for the last two years. These metrics were not available for inclusion in the interim report, but will be submitted as a part of the final analysis.

In keeping with the intent of the law, which required capture of the previous two-year's worth of data just prior to the start of the program, FY 2000 and FY 2001 injury rates and compensation costs have been collected for all pilot sites.

Some of the site injury statistics were standardized for this report due to differences in methods (injury and illness definitions, reporting practices and procedures) used at individual sites for calculating the lost workday and total case rates (e.g., the U.S. Marine Corps sites calculated their rates based on 100,000 man-hours). Definitions for lost workday and total case rates are given in Appendix 5. To normalize the data, injury rates were recalculated using the OSHA and DOL methodology. This methodology normalizes the rate of injuries per the number of manhours worked during the year, to a standard of 200,000 man-hours using the following formulas:

Lost Workday Injury Rate (LWDI)

LWDI =Number of Lost Workday Cases X 200,000 Man-hoursTotal hours worked by the target population during the period in question

Total Case Rate (TCR)

TCR =Number of reported injuries X 200,000 Man-hoursTotal hours worked by the target population during the period in question

The 200,000 hours in the formula represents 100 employees working 40 hours per week and 50 weeks per year. This number keeps the value that results from these formulas small. The number of employee hours comes from pilot site records, or it can be estimated by using the total target population multiplied by 2000 hours per year. The total case rates equates to the number of reported lost workday injuries, restricted workday injuries, medical treatment cases, and at some sites the first aid cases.

Compensation costs presented in this report reflect only the Office of Worker's Compensation Program (OWCP) costs reported by the Department of Labor to the installation. Continuation of Pay (COP) hours and cost metrics will be included as data becomes available. The injury rates and compensation costs presented in this report reflect only the rates and costs for DoD civilian employees who are funded directly by the individual pilot sites. They do not include the rates and costs for non-appropriated civilian employees or civilians who have been contracted to perform work at the individual pilot site.

A baseline of the Lost Workday Injury (LWDI) Rates, Total Case Rates (TCR), both direct (compensation cost paid by the Department of Labor) and indirect costs (estimated using the OSHA guidance) were identified to help determine impacts of the selected private sector safe work practices. The collection of LWDI, TCR, and cost data was difficult to get because requirements vary among DoD components for maintaining this data. The collection and verification of the data is ongoing. Additionally, the process for identification of direct and indirect cost is under review to determine if all injury and illness costs are accurately tracked and reported. In future reports, this project will add the metrics from the Secretary's initiative to reduce lost time for injuries.

Due to the potential for changes in the injury rates and compensation costs presented in this report, the baseline rates and costs will be revisited during the program. This is necessary since the baseline injury rates and/or compensation costs for FY 2001 could increase due to delinquent or pending claims. The baseline injury rates and worker compensation costs for FY 1999, FY 2000, and FY 2001, for each of the pilot sites, are as follows:

The established baseline injury rates and compensation costs (FY 2001) are summarized in **Table 2**.

Site	LWDI rate	TCR	Direct Costs	Indirect
	(per 100 workers)	(per 100 workers)	(x\$1000)	Costs (x\$1000)
USA - Watervliet Arsenal - NY	2.70	6.50	2,199	6,597
USA - Ft Bragg - NC	4.48	6.40	2,795	8,385
USAF - Hill AFB - UT	0.65	4.16	5,833	17,499
USAF - Tinker AFB - OK	2.13	4.99	12,399	37,197
USN - Key West NAS - FL	4.70	9.10	449	1,347
USN - Kingsville NAS - TX	9.60	13.30	902	2,706
USMC - Camp Lejeune - NC	11.00	13.13	3,445	10,335
USMC - Camp Pendleton - CA	9.60	17.50	4,233	12,699
DLA - Richmond - VA	0.77	4.20	717	2,151
DLA - Columbus - OH	0.87	4.80	1,134	3,402
DeCA - Zone 27	6.18	9.51	93	279
DeCA - Zone 29	5.66	7.46	102	306
Totals			34,301	102,903

 Table 2: FY 2001 Baseline Injury Rates and Compensation Costs

The lost workday injury (LWDI) rate represents the number of lost workday cases per 100 workers and is calculated according to OSHA and Department of Labor reporting requirements (Appendix 2, Ref. 2 & 3). The Total Case rate is the total number of all injuries and illnesses that resulted in the creation of a workers compensation case. This rate includes all lost workday cases and non-lost workday injuries and illness where a compensation case was created and this rate is calculated per the same requirements (DODI 6055.7). The injury/illness direct cost data presented in the table were obtained from the Department of Labor, Office of Workers Compensation. Direct cost is the charge-back cost to each service/agency. However, the direct cost will change when continuation of pay are added. Additionally, the boundaries of the DeCA zones 27 and 29 have changed, but zone 27 includes the Wright-Patterson commissary and zone 29 includes the Fort Bragg commissary. The DOL charge-back costs listed above are for the stores at the two installations. Indirect costs were determined by using an Occupational Safety and Health Administration model based on the type of work activity. The indirect costs are identified.

5.1 Department of the Army Baseline Data

Injury rates and worker compensation costs have been gathered for Watervliet Arsenal, New York and Fort Bragg, North Carolina. This injury and compensation data were obtained from site personnel (Safety, Occupational Health, and Human Resources Departments). Both injury and compensation data are by fiscal year.





The Fort Bragg injury data were obtained from site personnel (Safety, Occupational Health, and Human Resources Departments). Both injury and compensation data are by fiscal year.





5.2 Department of the Air Force Baseline Data

Injury rates and worker compensation costs have been gathered for Hill AFB, Utah and Tinker AFB, Oklahoma. The injury/illness data were obtained from site Safety, Occupational Health, and Human Resources Departments. Both injury and compensation data are by fiscal year.









5.3 Department of the Navy Baseline Data

Injury rates and worker compensation costs have been gathered for the Naval Air Facility at Key West, Florida and Naval Air Station at Kingsville, Texas. Both Lost Workday Injury (LWDI) rates and Total Case Rates (TCR) are reported for these sites.

The injury data were obtained from site Safety, Occupational Health, and Human Resources Departments. The injury data are by fiscal year.







The injury data were obtained from site Safety, Occupational Health, and Human Resources Departments. The injury data are by fiscal year.



5.4 United States Marine Corps Baseline Data

The injury data were obtained from site Safety, Occupational Health, and Human Resources Departments for the appropriated funded civilians only. Both injury and compensation data are by fiscal year.







The injury data were obtained from site Safety, Occupational Health, and Human Resources Departments. Both injury and compensation data are by fiscal year.



5.5 Defense Logistics Agency (DLA) Baseline Data

Injury rates and worker compensation costs have been gathered for the DLA sites at Columbus, Ohio and Richmond, Virginia. Both Lost Workday Injury rates and Total Case rates are reported for these sites. The injury data were obtained from site Safety, Occupational Health, and Human Resources Departments. Both injury and compensation data are by fiscal year.





The injury data were obtained from site Safety, Occupational Health, and Human Resources Departments. Both injury and compensation data are by fiscal year.



5.6 Defense Commissary Agency (DeCA) Baseline Data

Injury rates and worker compensation costs have been gathered for DeCA Zones 27 and 29. The store at Wright-Patterson AFB falls within Zone 27 and the store at Fort Bragg North falls within Zone 29. There are nine (9) stores in Zone 27 and eleven (11) stores in Zone 29. Data for the Zones are included in this program since the best industry practices to be implemented in the target stores (Wright-Patterson AFB and Fort Bragg North) will be implemented in the other stores within these zones. As such, the injury rates are for the zones and compensation costs are for the individual stores at Wright-Patterson and Fort Bragg. Both injury and compensation data are by fiscal year.





* Data for FY 1999 and FY 2000 could not be determined due to the zone reorganization that has occurred over the last several years

Page 22 of 37





* Data for FY 1999 and FY 2000 could not be determined due to the zone reorganization that has occurred over the last several years

The site population associated with the injury data in this report is shown in **Table 3**. All of the population data are for appropriated funded civilian personnel. Since the site population varies over the course of a year, these numbers represent the average population based on the population size as measured at the end of each quarter.

Site	Civilian Population		
	FY 1999	FY 2000	FY 2001
USA - Watervliet Arsenal - NY	941	847	751
USA - Ft Bragg - NC	3,074	3,031	2,704
USAF - Hill AFB - UT	8,528	9,131	9,981
USAF - Tinker AFB - OK	11,916	12,392	12,894
USN - Key West NAS - FL	637	517	614
USN - Kingsville NAS - TX	210	245	200
USMC - Camp Lejeune - NC	1,574	1,568	1,531
USMC - Camp Pendleton - CA	1,453	1,423	1,419
DLA - Richmond - VA	2,154	2,211	2,213
DLA - Columbus - OH	2,647	2,550	2,462
DeCA - Zone 27	447	447	420
DeCA - Zone 29	699	736	778

Table 3: Site Population Data

6.0 How the DEWSDP Differs from Previous Efforts to Improve DoD Safety

Several previous efforts (FY 1994 & FY 1997) by the Office of Personnel Management (OPM) attempted to correlate specific active interventions with improvement in both worker injury rates and worker compensation costs. The latest study was published in January 1998 (Appendix 2, Ref. 5). The following excerpts from that study indicate that previous efforts experienced problems with (1) lack of baseline for existing programs, (2) correlation of final data for the specific active intervention, and (3) inconsistencies in capturing and reporting data.

During Fiscal Year (FY) 1997, the Office of Merit Systems Oversight and Effectiveness conducted a special study to explore the premise that active interventions would enable agencies to improve all or part of their worker compensation programs. Fourteen organizations voluntarily participated as test laboratory sites for the study (page 1).

The study was follow-on to an earlier Office of Personnel Management (OPM) review of worker compensation. That study included a list of practices implemented at a few installations that appeared to improve administration of worker compensation programs. Based on that information and a subsequent survey of the installations originally reviewed to determine whether or not OPM recommendations for improvements had positive results, OPM decided it would be helpful to track deliberately implemented changes (page 1).

In the several test sites that tracked savings/cost/cost avoidance, over \$3 million was saved with only a marginal expenditure of staff time and other resources. Conceivably, a broader application of specific interventions across the Federal Government could produce savings totaling several hundred million dollars (page 1).

Specifically, the intervention results support the following conclusions.

- Focusing on prevention of specific types of injuries that occur at an installation creates an atmosphere of awareness that fosters increased safety, leading to fewer injuries and lower worker compensation costs.
- Top management leadership and support is critical to establishing the control of worker compensation costs as an organizational priority, particularly during periods of downsizing and organizational change.
- The more informed supervisors and employees are concerning worker compensation procedures, the more likely an injured employee's return to work can be expedited.
- Early and sustained injury and case follow-up can be a deterrent to long-term disability incidents and higher worker compensation costs.
- Aggressive identification of light duty assignments is effective in returning injured employees to a productive state, thus reducing the likelihood of long-term disability claims.
- The more engaged Program Coordinators and other responsible officials are in program implementation and monitoring the program, the greater the payoff (pages 1 and 2).

On a less positive note, the problem of inadequate cost tracking or of failing to provide that information to appropriate management levels continues to plague efforts to sensitize managers to the enormity of the cost of this program across the Federal Government, and the direct budget impact on the employing organization. Managers remain unaware of the provisions for charging back worker compensation costs and the resultant budget impact on their organization. The current tight budget environment presents an obvious incentive for agencies to focus time and attention on worker compensation issues and the importance of making the required investment of time and resources to contain costs (page 2).

In March 1996, OPM published the findings of the FY 1994 study along with an appendix describing a number of practices which installations reported were working effectively in their organizations. A few installations had tracked improvements based upon those practices, but for the most part no concrete data were available. OPM also made recommendations for improvements at many installations visited but had no information regarding the effectiveness of those recommendations (page 3).

The Office of Personnel Management resurveyed all installations where recommendations had been made in the 1994 study. These installations were asked whether they implemented any of the recommendations and what, if any, effect the implementations had on their program.

At 49 installations, a total of 78 recommendations were implemented and a reported 48 of those resulted in improvements (page 3).

Results were mixed in terms of dollars saved, with half of the installations reporting a decrease in costs, about ten percent reporting no change, and the rest reporting an increase. In most cases, the installation had no way of determining whether the savings or additional costs were related to the intervention or caused by other factor (page 3).

Beginning in FY 1997, as the final phase of the project, OPM undertook a joint study with a number of volunteer installations from several different agencies to identify, implement, and measure discreet interventions to determine to what extent various interventions actually affected claims, cost, productivity, or return to work rates. OPM hoped that the information obtained could be used by other agencies to help them identify interventions that would help lower the cost of their worker compensation programs (page 4).

OPM found early on that an attempt to gather identical measures for each intervention was not feasible due to differences in the ways that agency systems attempt to capture workers compensation information. Data were gathered at the beginning of the project, approximately 6 months into the study, and at the end of the one-year study (page 4).

The Defense Employee Work Safety Demonstration Program was designed to follow the same basic process as the FY 1997 OPM study, by utilizing on-site reviews and selecting specific active interventions that can improve both injury rates and worker's compensation costs. However, the program will differ in the scope of the programs, policies, procedures and practices, compliance, and culture ("programs") that is base lined, and in the use of private sector contractors to assist in selecting and implementing private industry best safe work practices at the pilot sites. The increase in scope of the baseline process is to ensure that sufficient information is captured to allow a comparison of the modified site programs with the programs that existed at the start of the program. To evaluate the impact of programmatic and culture changes at a particular site (cause and effect), documentation of all existing programs that could impact safety or injury costs has been developed for each site. The documentation consists of information covering the areas of leadership, budgets and contracts, hazard identification and analysis, controls selection, operations and implementation, feedback and assessment, and cost management, claims management, and return to work programs. It also includes information on personnel training, site metrics, and risk management. The basis for this documentation was DoD requirements, as defined in DODI 6055.1 (Appendix 2, Ref. 6), and supplemented with industry best practices. The initial program baselines will be used to compare the results of interim and final reviews of the same programs to determine the changes made under each pilot site's best practice program. Combined with an analysis of the Lost Workday Injury (LWDI) Rates and worker compensation costs, the results of the baseline portion of the program will enable ODUSD (IE) to recommend application of private sector best industry safe work practices to all DoD services/agencies. The baseline process was performed using teams of qualified individuals to visit each pilot site. Using a standardized set of review, interview, and observation criteria, the team documented programs, compliance, and culture that established the programmatic baseline.

Appendix 1 – 106th CONGRESS 2d Session H. R. 5408

Public Law 106-398, Section 1112. Work Safety Demonstration Program.

(a) ESTABLISHMENT- The Secretary of Defense shall carry out a defense employees work safety demonstration program.

(b) PRIVATE SECTOR WORK SAFETY MODELS- Under the demonstration program, the Secretary shall--

(1) adopt for use in the workplace of civilian employees of the Department of Defense such work safety models used by employers in the private sector that the Secretary considers as being representative of the best work safety practices in use by private sector employers; and

(2) determine whether the use of those practices in the Department of Defense improves the work safety record of Department of Defense employees.

(c) SITES- (1) The Secretary shall carry out the demonstration program--

(A) at not fewer than two installations of each of the Armed Forces (other than the Coast Guard), for employees of the military department concerned; and(B) in at least two Defense Agencies (as defined in section 101(a)(11) of title 10, United States Code).

(2) The Secretary shall select the installations and Defense Agencies from among the installations and Defense Agencies listed in the Federal Worker 2000 Presidential Initiative.
(d) PERIOD FOR PROGRAM- The demonstration program shall begin not later than 180 days after the date of the enactment of this Act and shall terminate on September 30, 2002.
(e) REPORTS- (1) The Secretary of Defense shall submit an interim report on the demonstration program to the Committees on Armed Services of the Senate and the House of Representatives not later than December 1, 2001. The interim report shall contain, at a minimum, for each site of the demonstration program the following:

(A) A baseline assessment of the lost workday injury rate.

(B) A comparison of the lost workday injury rate for fiscal year 2000 with the lost workday injury rate for fiscal year 1999.

(C) The direct and indirect costs associated with all lost workday injuries.(2) The Secretary of Defense shall submit a final report on the demonstration program to the Committees on Armed Services of the Senate and the House of Representatives not later than December 1, 2002. The final report shall contain, at a minimum, for each site of the demonstration program the following:

(A) The Secretary's determination on the issue described in subsection (b)(2).

(B) A comparison of the lost workday injury rate under the program with the baseline assessment of the lost workday injury rate.

(C) The lost workday injury rate for fiscal year 2002.

(D) A comparison of the direct and indirect costs associated with all lost workday injuries for fiscal year 2002 with the direct and indirect costs associated with all lost workday injuries for fiscal year 2001.

(f) FUNDING- Of the amount authorized to be appropriated under section 301(5),

\$5,000,000 shall be available for the demonstration program under this section.

Appendix 2– References

- 1. Bureau of Labor Statistics, Handbook of Methods, Chapter 9, Occupational Safety and Health Statistic, Estimation Procedures.
- 2. OSHA Record Keeping Guidelines; Recordkeeping and Reporting Guidelines for Federal agencies, Log of Federal Occupational Injuries and Illnesses
- 3. Department of Labor's Office of Workers' Compensation Programs (direct computer feed from DOL database to DoD automated system)
- 4. OSHA worksheet, How to estimate the impact of accidents on your profits and sales (web page in the OSHA website)
- 5. U. S. Office of Personnel Management, Report of an Oversight Special Study, Workers Compensation Administration Laboratory Study 1997, Diane Voge, et. al, January 1998
- 6. Department of Defense Instruction 6055.1, DoD Safety and Occupational Health Program, August 19, 1998
- 7. Department of Defense Instruction 6055.7, Accident Investigation, Reporting and Record Keeping
- 8. Department of Defense 1400.25-M. Requirements for management of the DoD Federal Employee Worker Compensation Program
- 9. "Costs of Injuries and Illnesses in Construction", The Construction Chart Book, Second Edition, April 1998, page 46.

Appendix 3 - Operations Plan Phase I

OPERATIONS PLAN FOR PHASE I OF THE DEFENSE EMPLOYEE WORK SAFETY DEMOSTRATION PROGRAM

INTRODUCTION

The FY2001 National Defense Authorization Act, PL 106-398, section 1112 (provided as Attachment 1 to this Operations Plan), authorizes \$5,000,000 from existing Operation and Maintenance accounts for the DoD to initiate a Defense Employee Work Safety Demonstration Program (DEWSDP) at designated DoD installations. These installations will employ proven private sector models that improve worker safety and reduce associated injury costs. This action funds the first \$1,000,000 phase of the program. Funds usage is outlined below. We anticipate that a second phase will fund an additional amount of money, not to exceed \$4,000,000, to complete the Demonstration during Phase II of the program.

PURPOSE

This DEWSDP Operations Plan is intended to:

- Explain the program's oversight and management.
- Establish a framework to involve safety and health organizations from Military Departments and Defense Agencies, and other appropriate Federal Agencies.
- Identify the program's reporting structure.

OVERSIGHT AND MANAGEMENT

The Office of the Deputy Under Secretary of Defense (Installations and Environment), ODUSD (I&E), Force Protection (FP) will be responsible for overall management and oversight of the Defense Employee Work Safety Demonstration Program. The Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health) (ESOH) is the Executive Agent for the Defense Occupational Health Program. He will provide resource management services to ODUSD(I&E)/FP by ensuring program funds are obligated and appropriately spent. The US Army Center for Health Promotion and Preventive Medicine (CHPPM) will assist the Executive Agent in executing his resource management responsibilities by distributing program funds to the Components, tracking expenditures and publishing monthly budget execution reports.

The US Army CHPPM will hire a support contractor to provide program administrative, technical and analytical support to ODUSD(I&E)/FP. During Phase I of the DEWSDP, the Contractor will: (1) review congressional requirements contained in the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, Section 1112; (2) complete the Interim Congressional Report as delineated and required by the Act; and (3) provide ODUSD(I&E)/FP with an estimate of the resources required to complete the Final Report required by the Authorization Act. In considering costs for a possible Phase II, the contractor shall consider all actions necessary to meet the requirements of section 1112 of the FY 2001 National Defense Authorization Act. As part of its analysis, the contractor should consider, but not necessarily

limit itself to, the following tasks: (1) Reviewing Federal Worker 2000 goals; (2) Working with DoD Components to develop criteria for identification of pilot facilities, reviewing private sector work safety "Best Practices" and completing a statutory, regulatory and cultural assessment to determine factors supporting and limiting adoption of "Best Practices"; (3) Conducting baseline safety management system reviews; (4) Assisting installations/agencies in the development and implementation of safety management pilot programs at designated installations; (5) Tracking, trending and analyzing safety and health data; (6) Determining direct and indirect costs associated worker injuries; and (7) Preparing the final report to Congress.

The contractor's delivery of a Phase II cost assessment is due to ODUSD(I&E)FP by 1 July 2001. The delivery of the Draft Interim Report is due by October 15 2001. Phase I of the program ends December 30, 2001.

INVOLVEMENT OF SAFETY AND HEALTH ORGANIZATIONS FROM MILITARY SERVICES AND DEFENSE AGENCIES

During Phase I, the Military Services and two Defense Agencies will propose pilot installation sites from among the installations listed in the Federal Worker 2000 Presidential Initiative. ODUSD(I&E)/FP will approve pilot sites for the implementation of the demonstration. This final list of sites will be used in completing the Interim Congressional Report as delineated and required the Act. As required by the Act, Pilot studies will be performed at a minimum of 10 installations. After approval of pilot sites, Military Departments and Defense Agencies will develop implementation plans. These plans, developed in Phase I, will be implemented in Phase II.

During Phase II of the ODUSD(I&E)/FP's Employee Work Safety Demonstration Program support contractor will visit each pilot study site and conduct baseline safety management review surveys. In addition, the contractor will identify direct and indirect worker injury costs. Each pilot site will submit a plan to ODUSD(I&E)/FP identifying resources and expertise needed to implement the safety demonstration pilot program. Military Departments should obtain support and expertise from their respective Safety and Occupational Health Centers. Defense Agencies can use either Military or other governmental safety and health experts to support their efforts. ODUSD(I&E)/FP will use Work Safety Demonstration funds to pay for approved support and expertise initiatives it approves from among those submitted to it by each component.

REPORTING STRUCTURE

Each installation/agency selected in Phase I of this program will report pilot study results through its chain-of-command and to ODUSD(I&E)/FP's support contractor. ODUSD(I&E)/FP's support contractor will report Work Safety Demonstration Phase II pilot study results and updates to ODUSD(I&E)/FP and at quarterly Safety and Occupational Health Committees meetings and DoD Environment, Safety and Occupational Health (ESOH) Policy Board meetings. In addition, ODUSD(I&E)/FP will present periodic updates at quarterly DoD Prevention, Safety and Health Promotion Council meetings.

DISTRIBUTION OF FUNDS

Phase I

* Contract Support	\$	100,000
Air Force	\$	200,000
Navy	\$	200,000
Army	\$	200,000
Marines	\$	200,000
Defense Agencies	\$	100,000
Total	\$1	,000,000

*Note: This funding is allocated for DUSD(I&E)/FP contracted support for administrative, technical and analytical assistance. All other funds are for component demonstration studies at approved sites.

Appendix 4 - Operations Plan Phase II

OPERATIONS PLAN FOR PHASE II OF THE DEFENSE EMPLOYEE WORK SAFETY DEMONSTRATION PROGRAM

INTRODUCTION

The FY 2001 National Defense Authorization Act, PL 106-398, section 1112, authorizes a maximum of \$5,000,000 from existing Operation and Maintenance accounts for the DoD to initiate a Defense Employee Work Safety Demonstration Program (DEWSDP) at designated DoD installations. Under the program, designated installations will employ proven private sector models that improve worker safety and reduce associated injury costs. The Principal Deputy Under Secretary of Defense (Acquisition, Technology and Logistics), Mr. David Oliver, approved the overall OSD concept for the DEWSDP in a memo dated March 23, 2001. The concept outlined in this Operations Plan is very similar to that provided to Mr. Oliver. As explained in the "Distribution of Funds" section of this document, the estimate of program cost has increased from the \$4.4 million briefed to Mr. Oliver to the full \$5.0 million made available by Congress.

Phase I of the program, estimated at \$1,000,000, is funded and in execution. When funded, Phase I had its own operations plan. In order to complete the DEWSDP, this combined Phase I and II operations plan adds an additional \$4,000,000 of funding and effort to the Phase I Operations Plan. As proposed Service and Agency pilot study programs exceeded the maximum amount authorized by the United States Congress, this Operations Plan funds the DEWSDP at the maximum authorized amount. With the exception of an estimate of resources required to complete the Final Report required by the Authorization Act, all effort contained in the Phase I program is retained in this Operations Plan.

PURPOSE

This Operations Plan for a combined Phase I and II DEWSDP:

- Replaces the original Phase I plan with a combined Phase I and Phase II Operations Plan.
- Explains the program's oversight and management.
- Establishes a framework to involve safety and health organizations from Military Departments and Defense Agencies, and other appropriate Federal Agencies.
- Identifies the program's reporting structure.

OVERSIGHT AND MANAGEMENT

The Office of the Deputy Under Secretary of Defense (Installations and Environment), (ODUSD (I&E)), Force Protection (FP) will be responsible for overall management and oversight of the Defense Employee Work Safety Demonstration Program. The Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health) (ESOH) is the Executive Agent for the Defense Occupational Health Program. The Executive Agent will provide resource management

services to ODUSD (I&E)/FP by ensuring program funds are obligated and appropriately spent. The US Army Center for Health Promotion and Preventive Medicine (CHPPM) will assist the Executive Agent in executing his resource management responsibilities by distributing program funds to the Components, tracking expenditures and publishing monthly budget execution reports.

The US Army Center for Health Promotion and Preventive Medicine (CHPPM) will hire support contractors to provide program administrative, technical and analytical support to ODUSD(I&E)/FP. All contracts will be awarded competitively based upon "best value" or will be set-aside for small businesses. In order to avoid possible organizational conflicts of interests and to permit maximum competition, statements of work shall be written as discrete units of work which do not give contractors from prior work a competitive advantage on future work. During the DEWSDP, contractor support personnel from multiple contractors will:

- Review Congressional requirements contained in the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, section 1112.
- Complete the interim congressional report as delineated and required by the Act at section (e)(1).
- Review Federal Worker 2000 goals and consider these goals in the writing of both the interim and final congressional reports.
- Compete a statutory, regulatory and cultural assessment to determine factors supporting and limiting adoption of "Best Practices".
- Conduct baseline safety management system reviews to a common standard.
- Assist installations/agencies in the development and implementation of safety management pilot programs at designated installations.
- Track, trend and analyze safety and health data, including the development of a Defense Environmental Network and Information Exchange (DENIX) website for data reporting.
- Determine direct and indirect costs associated worker injuries.
- Complete a final report to Congress, which meets all requirements of PL 106-398, section 1112(e)(2).

Delivery of the Draft Interim Report to the Assistant Deputy Under Secretary of Defense for Force Protection (ADUSD/FP) shall be made on or before October 15, 2001. The contractor responsible for the Interim Report shall deliver revised documents within seven days of receipt of ODUSD(I&E)FP comments. Delivery of the final Interim Report to the ADUSD/FP is due no later than November 20, 2001.

The contractor responsible for production of the Final Report to Congress shall deliver a draft to the ADUSD/FP on or before October 15, 2002. The contractor responsible for the final report shall deliver revised documents within seven days of receipt of ODUSD(I&E)FP comments. Delivery of the final report to Congress shall be made to the ADUSD/FP on or before November 20, 2002.

INVOLVEMENT OF SAFETY AND HEALTH ORGANIZATIONS FROM MILITARY SERVICES AND DEFENSE AGENCIES

During Phase I, the Military Departments and two Defense Agencies proposed pilot installation sites from among the installations listed in the Federal Worker 2000 Presidential Initiative (except for the Air Force, which had no Federal Worker 2000 sites and therefore proposed sites from among all its installation sites). ODUSD(I&E)FP has approved pilot sites, based upon requirements of the DEWSDP Act, for the implementation of the demonstration. This final list of sites will be used in completing the Interim Congressional Report as delineated and required the Act. Military Departments and Defense Agencies will develop implementation plans which identify in detail approved best work safety practices, benefits of these practices, and the resources and expertise need to implement their pilot study. These implementation plans are due to ADUSD/Force Protection no later than August 31, 2001.

A support contractor, to be determined, will visit each pilot study site and conduct baseline safety management review surveys. The contractor shall meet with representatives from base safety, occupational health, unions, public health, environmental management, the installation commander or designee, the fire department, and Service Safety and Occupational Health Centers to perform a statutory, regulatory and cultural assessment of factors that many impede adoption of adoption of "best practices." In addition, the contractor will identify direct and indirect worker injury costs.

Military Departments should obtain support and expertise from their respective Safety and Occupational Health Centers. Defense Agencies can use either Military or other governmental safety and health experts to support their efforts. ODUSD(I&E)/FP will use DEWSDP funds to pay for approved support and expertise initiatives it approves from among those submitted to it by each component. Unauthorized usage of funds includes payment of employee salaries, equipment purchases and software development.

REPORTING STRUCTURE

Each installation/agency selected in Phase I of this program will report pilot study results through its chain-of-command and to ODUSD(I&E)/FP's through the DENIX exchange website. An ODUSD(I&E)/FP's support contractor will report Work Safety Demonstration Phase II pilot study results and updates to ODUSD(I&E)/FP and at quarterly Safety and Occupational Health Committees meetings and DoD Environment, Safety and Occupational Health (ESOH) Policy Board meetings. In addition, ODUSD(I&E)/FP will present periodic updates at quarterly DoD Prevention, Safety and Health Promotion Council meetings.

INITIAL DISTRIBUTION OF FUNDS

Phase I - Revised with this document

*Contract Support	\$ 200,000	(was \$100,000, additional from Defense Agencies)
Air Force	\$ 200,000	
Navy	\$ 200,000	
Army	\$ 200,000	
DeCA	\$ 200,000	(funds were for Marines)
Total	\$1,000,000	

Phase II - Funded with this document

*Contract Support	\$980,000
Air Force	\$480,000
Navy	\$480,000
Army	\$480,000
Marines	\$680,000
DLA	\$400,000
DeCA	\$200,000
OSD Project	\$300,000
Total	\$4,000,000

*This funding is allocated for DUSD(I&E)/FP contracted support for administrative, technical and analytical assistance. All other funds are for component demonstration studies at approved sites.

Notes -

- 1. Congressional authorization language permits a maximum amount of \$5,000,000 for the DEWSDP. The total of all Service and Agency requirements far exceeded the maximum available amount, therefore ODUSD(I&E)/FP plans to provide each Service with an equal, total program amount of \$680,000. This amount is consistent with the March 23, 2001 PDUSD(AT&L) memo approving the DEWSDP.
- 2. Under the total program, defense agencies are allocated a total of \$800,000.
- 3. As this is a dynamic program, fund allocation may change to suit emerging requirements.

Appendix 5 - Definitions

Occupational injuries and illnesses and lost workdays are defined as:

Recordable injuries and illnesses are:

- 1. Occupational deaths, regardless of the time between injury and death, or the length of the illness; or
- 2. nonfatal occupational illnesses; or
- 3. nonfatal occupational injuries which involve one or more of the following: Loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment (other than first aid).

Injury. "A traumatic wound or other condition of the body caused by external force or deprivation (drowning, suffocation, exposure, cold injury, and dehydration), including stress or strain. The injury is identifiable as to time and place of occurrence and member or function of the body affected, and is caused by a specific event or incident or series of events or incidents in a single day or work shift" (DODI 6055.7, Accident Investigation, Reporting and Record Keeping, October 3, 2000).

Illness and/or Disease. "A non-traumatic physiological harm or loss of capacity produced by systemic; continued or repeated stress or strain; exposure to toxins, poisons, fumes, etc., or other continued and repeated exposures to conditions of the environment over a long period of time. For practical purposes, an occupational illness and/or disease is any reported condition that does not meet the definition of injury" (DODI 6055.7, Accident Investigation, Reporting and Record Keeping, October 3, 2000).

Lost workday cases are cases, which involve days away from work, or days of restricted work activity, or both.

- 1. Lost workday cases involving days away from work are those cases, which result in days away from work, or a combination of days away from work and days of restricted work activity.
- 2. Lost workday cases involving restricted work activity are those cases, which result in restricted work activity only.

Lost Time Case. A nonfatal traumatic injury that causes any loss of time from work beyond the day or shift it occurred, or a nonfatal non-traumatic illness and/or disease that causes disability at any time (DODI 6055.7, Accident Investigation, Reporting and Record Keeping, October 3, 2000).

No Lost Time Cases are nonfatal injury or illness and/or disease that do not meet the definition of a lost time case (usually created by a compensation claim for medical expense) or first aid case (DODI 6055.7, Accident Investigation, Reporting and Record Keeping, October 3, 2000).

Incidence rate represent the number of injuries and/or illnesses per 100 full-time workers and were calculated as: (N/EH) X 200,000 where:

N = number of injuries and/or illnesses

EH = total hours worked by all employees during the calendar year

200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

In addition to these, the following definition is provided:

Total Case rate represent the total number of injuries and/or illnesses reported under the DOL requirements per 100 full-time employees, calculated using the equation for incidence rates where:

N = total number of reportable injuries, substituting into the equation above.