



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, DC 20350-2000

IN REPLY REFER TO

5100
Ser N09F/6U868001
28 Feb 06

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF THE NAVY (SAFETY)

Subj: U.S. NAVY FY 2005 ANNUAL REPORT to OSHA

Ref: (a) OSHA Memo of 8 Dec 05 to Federal Agencies

Encl: (1) U.S. Navy Safety and Occupational Health (OSH)
Program Fiscal Year 2005 Annual Agency Report

1. In response to reference (a), the U.S. Navy submission of the Department of the Navy's FY 2005 Annual Occupational Safety and Health (OSH) report is forwarded as enclosure (1).
2. The report is forwarded for inclusion in the Department of the Navy's official response to the Occupational Safety and Health Administration (OSHA). We are pleased with progress made in FY 2005 and are ready to meet new challenges to continue our focus on eliminating workplace fatalities, injuries, illnesses and disabilities.
3. Our points of contact for the U.S. Navy FY 2005 Annual Report to OSHA are Joy Erdman, (703) 602-2575, Gina Moore, (703) 604-5434, and Nancy McWilliams, (757) 444-3520 Ext 7156.

A handwritten signature in black ink, appearing to read "G. E. Mayer", is positioned above the typed name.

G. E. MAYER
Rear Admiral, U.S. Navy
CNO Special Assistant for Safety



U. S. NAVY

OCCUPATIONAL SAFETY AND HEALTH PROGRAM

FISCAL YEAR 2005 ANNUAL

AGENCY REPORT

PREPARED BY:

CNO (09F)/COMMANDER, NAVAL SAFETY CENTER



FY 2005 U.S. NAVY ANNUAL REPORT TO OSHA

Fiscal Year: 2005

Name of Agency: Department of the Navy

Name of Component: U.S. Navy

Address 2000 Navy Pentagon
Washington, DC 20350-2000

Number of employees covered by this report: 182,315 Civilian Workforce

Name of individual responsible for the Occupational Safety and Health Program: RADM George E. Mayer, USN

Title: Special Assistant to the Chief of Naval Operations
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U.S. NAVY FISCAL YEAR 2005 ANNUAL AGENCY REPORT EXECUTIVE SUMMARY

[U.S. Navy Reports to OSHA are available at <http://safetycenter.navy.mil/osh/shore/oshareport.htm>.]

Statistics - U.S. Navy's workforce increased by approximately 2.2% - from 178,397 employees in FY 2004 to 182,315 in FY 2005. The Navy reported 5,889 injury and illness cases in FY 2005, an 8.1% decrease from FY 2004. Of those 5,889 total injuries, 3,211 involved lost time, a 3.4% decrease from FY 2004.

Workers' Compensation Data – Total Cost

CATEGORY	CBY 01	CBY 02	CBY 03	CBY 04	CBY 05
Total Cost (\$ Million)	227.3	227.2	225.6	222.8*	216.7*

*Figures prepared by the DoD CPMS, ICUC Division from the USDOL OWCP Chargeback bill.

Continuation of Pay (COP) Data Comparison with Past Four Fiscal Years

Fiscal Year	FY 01	FY 02	FY 03	FY 04	FY 05
COP Costs (\$Millions)	3.54	3.00	3.65	3.14	2.15

SHARE – The Tables below represent the Department of the Navy's performance on OSHA's SHARE Initiative.

Goal 1: Total Case Rates

Goal = Reduce by 3% per year

FY 03 Actual	FY04 Goal	FY04 Actual	FY04 %Change	FY05 Goal	FY05 Actual	FY05 %Change	FY06 Goal
4.03	3.90	3.59	-10.9 Met	3.79	3.23	-10.0 Met	3.68

Goal 2: Lost Time Case Rate

Goal = Reduce by 3% per year

2.13	2.07	1.90	-10.8 Met	2.00	1.76	-7.4 Met	1.94
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Goal 3: Timely Filing of Claims Rate

Goal = Increase by 5% per year

53.8%	56.49	61.5%	+14.3 Met	59.31%	71.2%	+15.8 Met	63.28%
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Goal 4: Lost Production Days Rate

Goal = Reduce by 1% per year

60.2	59.60	60.1	-0.2 Not met	59.00	51.0	-15.1 Met	58.41
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Note 1: Data are Department of the Navy (Navy and Marine Corps). Data source: SHARE Performance, <http://www.dol.gov/esa/owcp/dfec/share/getxls.asp?id=0280>. Goals calculated with FY03 as the baseline.

The U.S. Navy has focused on the Secretary of Defense's 50% Mishap Reduction Initiative. The SECDEF goals are comparable to SHARE goals except that the numeric goal for DoD is higher than the OSHA SHARE goal, and DoD has additional goals for aviation safety and traffic safety. The U.S. Navy initiatives to meet the 50% mishap reduction goals are described throughout the Accomplishments section of this report, Section 5. While the Navy did not meet the DoD 50% mishap reduction goal, they made a 23% overall improvement from the 2002 baseline. In FY 2005, DoD set a new mishap reduction goal of 75% by the end of FY 2008 using the same 2002 baseline.

Motor Vehicles - The Navy promotes national driver safety campaigns (e.g., Click-it-or-Ticket; You Drink, You Lose) and provides the AAA Driver Improvement Program. Traffic Safety Messages are sent to all Navy commands providing statistics and safe driving tips prior to holidays and/or seasonally.

Training - The Naval Occupational Safety, Health, and Environmental Training Center provides training to Sailors, Marines, and DoD civilian employees. The Center trained 8,573 students during FY 2005 in 55 courses. Traditional classroom settings, interactive Video-Tele-Training, web-courses, computer-based training, and Satellite based Government Educational Training Network were used.

Safety and Health Program Accomplishments FY 2005:

Acquisition Safety - The Assistant Secretary of the Navy Installations and Environment (ASN I&E), Deputy Assistant for Safety established a full-time position for a Safety Liaison. Completed three new sections for the **Acquisition Safety Webpages** at <http://www.safetycenter.navy.mil/acquisition/default.htm>.

Anti-Terrorism Force Protection (AT/FP), Emergency Management, and Homeland Defense

- Completed the *Chemical, Biological, Radiological, Nuclear and High Explosive (CBRNE) Safety*, Chapter of OPNAVINST 5100.23G, *Navy Safety and Occupational Health Program Manual*.
- Provided comments to OSHA document on *Best Practices for Hospital-Based First Receivers for Victims of Mass Casualty Incidents Involving the Release of Hazardous Substances*.

FY 2005 U.S. NAVY ANNUAL REPORT TO OSHA

- Worked with NIOSH/OSHA/DoD in discussions for application for OSHA alternate standard for Joint Service General Purpose Mask and coordinated with DoD to obtain alternate standard.
- Participated with the Interagency Working Group on Federal Workplace Emergencies.
- Initiated safety guidance to assist in Hurricane Katrina recovery efforts in the Gulf Coast.

DoD/Federal Councils and Committees - The Navy had increased involvement with DoD Safety Task Forces (e.g., Installation & Industrial Operations, Motor Vehicle, Aviation Safety, Workers' Compensation, Acquisition & Technology Program, and Military Injury Reporting).

Hazard Abatement Program

- Funded and corrected safety hazards via 75 projects costing \$10.8 M.

Major Mishap Review

- Yorktown Naval Weapons Station: Civilian electrician of Naval Facilities Command severely burned when involved in electrical distribution panel explosion. Command created new Standard Operating Procedure for working near exposed energized equipment.
- China Lake Naval Air Weapons Station: Investigated one workplace fatality involving a forklift.
- Naval Surface Warfare Center, Corona Div.: Investigated one workplace fatality involving a firearm.

Occupational Health (OH)

- BUMED provided OH policy and services ensuring safe and healthful workplaces for Navy and Marine Corps through comprehensive medical surveillance, certification exams, worksite evaluations and medical case management.
- Supported development of the Defense Occupational and Environmental Health Readiness System (DOEHRS) for industrial hygiene and hearing conservation (HC).
- Participated on DoD Council and Working Groups (WG): Defense Safety Oversight Council, OH Integrated Process Team, Joint Environmental Surveillance WG, Industrial Hygiene WG, Defense Medical Injury Prevention Priority WG, Federal Employee Compensation WG, HC WG, and Ergonomics WG.
- Provided HC program compliance statistics on regional HC programs.
- Navy Environmental Health Center formed Acquisition Technical Support Department and hired PhD toxicologist for health hazard assessments.

OSHA Citation Website

- Monitored OSHA citations detailing hazards by installation, inspection date, type of inspection, standard(s) cited, and abatement date.

Policy and Guidance

- Finalized and issued an updated Navy and Marine Corps Mishap and Safety Investigation, Reporting, and Recordkeeping Manual, OPNAVINST 5102.1D. http://neds.daps.dla.mil/Directives/5102_1D.pdf.
- Continued update of 2002 shore Safety & OH Program policy OPNAVINST 5100.23G.
- Began the update of the Navy Traffic Program OPNAVINST 5100.12G, last updated in 2001.

Safety Success Stories - <http://www.safetycenter.navy.mil/success/default.htm>

- Added four new Success Stories on the public domain side of the Safety Center's website.

Studies - Center for Naval Analyses (CNA) conducted study, "Statistical Analysis of Hearing Loss Among Navy Personnel," <http://safetycenter.navy.mil/osh/afloat/downloads/cnafeb05.pdf>. Showed increased risk of hearing loss for Navy members spending time aboard Navy ships. Another study was initiated in FY 2005 to identify corrective actions needed to reduce hearing loss to U.S. Navy personnel.

Voluntary Protection Program (VPP) - OSHA

- Portsmouth Naval Shipyard became first Navy VPP Star site. Awarded on 25 March 2005.
- Puget Sound Naval Shipyard & Norfolk Naval Shipyard applied to the OSHA VPP in FY 2005.
- Naval Air Station Key West first DoD base accepted into OSHA Challenge program. Completed Stage One in FY 2005 and working on completing Stage Two.
- Joint Navy/Marine Corps VPP Working Group formed in FY 2005. Purpose is to provide tools, criteria, and guidance to promote Navy and Marine Corps mishap reduction goals.

WEB Enabled Safety System (WESS) - During FY 2005, the Naval Safety Center continued to make customer requested enhancements and improvements to WESS. Ten new releases were deployed resolving 813 requests, providing improved functionality, additional queries and a better interface for the customer. WESS was enabled with the ability to import ESAMS reports. New Aviation Hazards Module was released providing the Navy and Marine Corps aviation communities with an on-line system for reporting and tracking aviation hazards.

Goals for FY 2006

Acquisition Safety

- Continue to re-invigorate system safety and put safety up front in acquisition to mitigate hazards.

- Add two Challenge/Resources sections to the Acquisition Safety web pages on Safety Center website.
- Review DoD and Navy acquisition policy/guidance to ensure optimal integration of OSH guidelines.
- Increase Safety and Occupational Health (SOH) membership and participation in acquisition teams.
- Insert SOH criteria into acquisition process.

Anti-Terrorism Force Protection (AT/FP), Emergency Management, and Homeland Defense

- Promote improved respiratory protection, including: Assist DoD to obtain an alternate OSHA standard for the Joint Services General Purpose Mask; and implement CBRN Respirator Action Plan
- Coordinate integration of CBRN protective equipment for first responders.
- Develop programs to ensure safety of AT/FP personnel responding to/recovering from CBRNE event.

DoD/Federal Councils and Committees

- Participate on the DoD Safety Oversight Council (DSOC) and DSOC task forces.
- Participate on OSHA Federal Councils, as resources permit.

Hazard Abatement Program

- Complete the Mishap Prevention and Hazard Abatement (HA) Projects approved in FY 2005.
- Prioritize and select FY 2006 Mishap Prevention and HA Projects.
- Continue to streamline the project process and find innovative ways to implement solutions globally.
- Continue emphasis on mishap prevention efforts (e.g., ergonomics, fall prevention, etc.).

Leadership – Continue fostering initiatives enabling top leadership to demonstrate commitment to safety.

Major Mishap Review

- Continue documenting and sharing “Lessons Learned” from serious mishaps in the fleet.
- Continue to rigorously investigate work-related fatalities to prevent recurrence & improve workplaces.

Navy Executive Safety Board

- Stand up new Navy Executive Safety Board and recommend safety performance improvements to the Chief of Naval Operations, and the Deputy Assistant Secretary of the Navy for Safety.
- Support Navy Shore and Afloat Safety Committees’ efforts.

Occupational Health (OH)

- Successfully deploy Defense Occupational and Environmental Health Readiness System (DOEHRS) – Industrial Hygiene (IH) to four Medical Treatment Facilities (MTFs).
- Continue to use and improve BUMED Occupational Health and Safety program assessment tools.
- Provide Systems Command programmatic support and OH experts to acquisition programs.
- Reduce percent of “no show” visits in OH clinics from baseline of 12 percent.
- Continue to improve hearing conservation statistics and annual program compliance metrics.

OSHA Citation Website - Monitor OSHA citations issued to Navy to identify and reduce risk.

Policy and Guidance

- Finalize updated shore safety and occupational health program policy (OPNAVINST 5100.23G).
- Initiate update of afloat SOH program policy (OPNAVINST 5100.19D).
- Update overarching safety policy (OPNAVINST 5100.8H).

Safety Management System – Enterprise Safety Application Management System (ESAMS)

- Complete ESAMS training at three remaining Continental US (CONUS) regions and commence training at all Outside CONUS regions.
- Implement and use ESAMS at all Commander Navy Installations (CNI) commands and all tenant commands receiving Base Operating Support Occupational Safety & Health services from CNI regions.

Safety Success Stories - at <http://www.safetycenter.navy.mil/success/default.htm>. Document ten success stories to demonstrate the value added by safety resulting in productivity gains and cost savings.

Studies

- Naval Audit Service to evaluate Navy Ergonomics Program implementation effectiveness.
- CNA to evaluate military hearing loss/shipboard noise to identify best ship design technologies.

Traffic Safety - Continue traffic safety efforts through the Naval Safety Center, CNI, the Navy Shore Safety Committee, additional funding, increased mishap investigation, and other initiatives.

Voluntary Protection Program (VPP) - OSHA - Continue to pursue OSHA VPP recognition at selected Navy activities (e.g., shipyards).

WEB Enabled Safety System (WESS) - Continue to improve the Navy’s WESS for conformance with Federal recordkeeping improvements and to respond to customer requests for improvement.

Workers’ Compensation - Assist Human Resources (HR) staff on their initiatives to reemploy injured civilians and to hire full-time workers’ compensation program manager positions.

U.S. NAVY FISCAL YEAR 2005 ANNUAL AGENCY DETAILED REPORT

1. STATISTICS

a. Use agency injury/illness data to summarize incident experience for total, lost time, and fatal cases during FY 2005. Compare to that of prior fiscal year.

The U.S. Navy's civilian workforce increased by approximately 2.2% - from 178,397 employees in FY 2004 to 182,315 in FY 2005. The Navy reported 5,889 injury and illness cases in FY 2005, an 8.1% decrease from FY 2004. Of those 5,889 total injuries, 3,211 involved lost time, a 3.4% decrease from FY 2004. More information on injury and illness data can be found in **Attachments A and B**.

b. Use agency data to display the workers' compensation and COP costs for CY 2005 and compare with previous year's expenditures.

The tables below summarize the Navy's Workers' Compensation and Continuation of Pay over the past five years.

Workers' Compensation Data – Total Cost

CATEGORY	CBY 01	CBY 02	CBY 03	CBY 04	CBY 05
Total Cost (\$ Million)	227.3	227.2	225.6	222.8*	216.7*

*These figures were prepared by the DoD CPMS, ICUC Division from the USDOL OWCP Chargeback bill.

Continuation of Pay (COP) Data Comparison with Past Four Fiscal Years

Fiscal Year	FY 01	FY 02	FY 03	FY 04	FY 05
COP Costs (\$Millions)	3.54	3.00	3.65	3.14	2.15

c. Determine & explain noticeable trends/major causes/ sources of fatalities/ lost time disabilities in FY 2005.

When compared with FY 2004, the FY 2005 lost work day mishaps in the Navy's WEB Enabled Safety System (WESS) increased 24%, from 1,766 to 2,195. We don't know if the increase reflects more mishaps or better reporting under WESS. We looked at those 2,195 mishaps four ways and identified certain trends, which are further analyzed in **Attachment A**.

There were two U.S. Navy civilian work-related fatalities in FY 2005 (Note: The Navy does not track those fatalities reported by OWCP that occur after a long illness or that would primarily have been reported to close out a workers' compensation claim). A Naval Air Weapons Station, China Lake, CA employee who had a government operator's license suspended due to hearing loss, operated a forklift without the knowledge of, or direction from his supervisors. He transported the load and used the forklift to place the load into the target frame, but did not secure the load to the frame. He then stood in front of the load and was crushed when the load toppled over. A thorough investigation was conducted, and it was determined that the employee had not been directed to perform this task. He incorrectly placed the approximately 3,000 lb. load on uneven ground in front of the target frame, and he did not secure the load once it was put into the frame as is the standard operating procedure. Supervisory procedures are under review to prevent future occurrences.

A Naval Surface Warfare Center, Corona Division (NSWC Corona) employee was shot and killed by a fellow employee who subsequently shot and killed himself. The shooter violated NSWC Corona and Naval Weapons Station Seal Beach, Detachment Corona (NWSSB, Det. Corona) policy as well as the 1950 Internal Security Act Title 50 USC Section 217997 security procedures by bringing his personal weapon on Base. NWSSB, Det. Corona does not allow weapons of any type on-site and has a sign posted at the main gate entrance. Anti-terrorism procedures include random vehicle searches and use of added security personnel.

2. SAFETY, HEALTH, AND RETURN-TO-EMPLOYMENT (SHARE) INITIATIVE

a. Provide detailed analysis of progress in achieving four goals of President's SHARE Initiative:
Department of the Navy exceeded SHARE goals in FY 2005 as shown in the chart below.

Goal 1: Total Case Rates

Goal = Reduce by 3% per year

FY03 Actual	FY04 Goal	FY04 Actual	FY04 %Change	FY05 Goal	FY05 Actual	FY05 %Change	FY06 Goal
4.03	3.90	3.59	-10.9 Met	3.79	3.23	-10.0 Met	3.68

Goal 2: Lost Time Case Rate

Goal = Reduce by 3% per year

2.13	2.07	1.90	-10.8 Met	2.00	1.76	-7.4 Met	1.94
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Goal 3: Timely Filing of Claims Rate

Goal = Increase by 5% per year

53.8%	56.49%	61.5%	+14.3% Met	59.31%	71.2%	+15.8% Met	63.28%
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Goal 4: Lost Production Days Rate

Goal = Reduce by 1% per year

60.2	59.60	60.1	-0.2 Not met	59.00	51.0	-15.1 Met	58.41
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Note 1: Data are Department of the Navy (Navy and Marine Corps). Data source: SHARE Performance, <http://www.dol.gov/esa/owcp/dfec/share/getxls.asp?id=0280>. Goals calculated with FY03 as the baseline.

b. Describe programs established and initiatives your agency launched in support of SHARE. Discuss the successes or failures of these programs or initiatives, and explain how they impacted the overall effectiveness of your agency's OSH program.

The U.S. Navy has focused on the Secretary of Defense's 50% Mishap Reduction Initiative. The SECDEF goals are comparable to SHARE goals except that the numeric goal for DoD is higher than the OSHA SHARE goal, and DoD has additional goals for aviation safety and traffic safety. The U.S. Navy initiatives to meet the 50% mishap reduction goals are described throughout the Accomplishments section of this report, Section 5. While the Navy did not meet the DoD 50% mishap reduction goal, they made a 23% overall improvement from the 2002 baseline. In FY 2005, DoD set a new mishap reduction goal of 75% by the end of FY 2008 using the same 2002 baseline.

3. MOTOR VEHICLE/SEAT BELT SAFETY

a. Include the number of motor vehicle accidents your agency's federal civilian employees experienced while on official government business during FY 2005.

There were **23** reported on-duty civilian motor vehicle accidents (mishaps) in FY 2005.

b. Indicate if your agency has mechanism in place to track % of employee seat belt use. How is information tracked, usage percentage, number of employees involved in motor vehicle accidents in FY 2005 who were wearing seat belts and number who were not.

As directed by Executive Order 13043 and Navy Traffic Safety Program Instruction (OPNAVINST 5100.12G), Paragraph 5.c.(2), military personnel are required to wear seat belts during the on-duty operation of private motor vehicles (PMVs) or government vehicles and by reference to DODI 6055.4, they are required to wear seat belts during off-duty operations. OPNAVINST 5100.12G is being revised to include wording to require seat belt use for military off-duty operations. Civilian employees are required to wear seat belts during on-duty operation of a private or government motor vehicle and any time while on a government installation. The Department of the Navy solicits seat belt usage information from subordinate commands on an annual basis. This information is provided to the Department of Defense by 30 April each year for the preceding calendar year. Information gained from this collection effort is used to tailor our enforcement efforts in this area. Seat belt observational surveys were conducted at random locations (entrance gates, parking lots, intersections, etc.) at 26 Navy shore installations and indicate an average seat belt use of 94%. This surpasses the national average for seat belt use but falls short of the Navy goal of 100% usage. Our efforts will continue to emphasize this important part of our PMV injury prevention program.

The Navy's WESS mishap reporting system has the mechanism to capture whether or not vehicle occupants who are involved in motor vehicle mishaps are wearing seat belts. However, the 'seat belt' field in WESS is not a required field so the data is not completely accurate. Of the 23 motor vehicle mishaps in FY 2005 (involving civilians on-duty), ten were identified as properly wearing their seat belts. The remaining 13 were not identified at all. This issue is being addressed to improve future accuracy.

c. Provide details of any efforts taken to improve motor vehicle safety and seat belt use.

A centrally managed Navy Traffic Safety Program was put in place by the Commander of Navy Installations (CNI) in April 2005 to provide critical training, behavior modification and enforcement support. Training includes nationally accredited safety courses for automobiles, motorcycles and emergency vehicles. Courses include AAA-Driver Improvement Training; National Safety Council Defensive Driving Course; Motorcycle Safety Foundation Basic RiderCourseSM and Experienced RiderCourseSM; and traffic safety training lectures provided before major holidays. Behavior modification and enforcement support include peer and subordinate mentoring programs, and traffic safety awareness campaigns. The "Click it or Ticket" Campaign focuses on raising awareness on the importance of seat belts as a life saving tool and the requirement to wear them on Navy installations. All efforts are focused on identifying and providing proven approaches for reducing risk factors such as speed, fatigue, lack of seat belts, and drinking and driving. Further examples of FY 2005 Traffic Safety initiatives Navy-wide are described in **Attachment C**.

4. TRAINING - Describe overall plan for assuring workers, supervisors, and committee members receive appropriate OSH awareness and hazard recognition information and training. List the specific training your agency offered during FY 2005 and number of employees trained. Describe overall impact of your agency's training efforts on improving work-related safety and health

The Naval Occupational Safety, Health and Environmental Training Center (NAVOSHENVTRACEN) provides occupational health, safety, and environmental training to Sailors, Marines, and DoD civilian employees. NAVOSHENVTRACEN trained 8,573 students during FY 2005 convening 490 times for 55 offered courses. There were 398 convenings primarily delivered in a traditional classroom setting and using computer based training, while 92 convenings were delivered by interactive Video-TeleTraining. Satellite based Government Educational Training Network was also used to deliver Federal agency training to Navy personnel. The annual Safety Professional Development Conference trained 339 Navy safety professionals. The overall impact of training is significant in making Navy personnel aware of safety and health hazards in their workplaces as well as helping them to understand procedures to follow to improve the quality and safety of their work and to prevent mishaps. Training courses offered by the NAVOSHENVTRACEN can be found at:

<http://www.safetycenter.navy.mil/training/catalog.htm>.

Safety and Occupational Health (SOH) training (separate from training offered by the NAVOSHENVTRACEN) is integrated into trade/skill training and is provided to management supervisors, employees, and union representatives in each workplace. In FY 2005, as in prior years, Navy civilian and military personnel received training tailored to their individual needs, from awareness training to education required to attain and maintain competency in their technical area(s) of expertise. Junior and senior military officers receive SOH management training and that has been incorporated into many levels of the Navy's leadership. Shore activity personnel are provided additional educational opportunities, such as coursework on Navy SOH Program Management and Self-Assessment, to assist them in initiating and managing their own SOH programs.

5. ACCOMPLISHMENTS FY 2005

a. Describe OSH program accomplishments and initiatives implemented to control trends and major causes or sources of fatalities and lost time disabilities and to improve overall OSH program. Discuss successes and/or failures as result of implementation of initiatives. [Listed Alphabetically]

Acquisition/System Safety

- The Assistant Secretary of the Navy Installations and Environment (ASN I&E), Deputy Assistant for Safety established a full-time position for an Acquisition Safety Liaison.
- Navy members have increased participation in DoD and Navy working groups, including an acquisition and technology working group chaired by the DoD Chief Engineer for Acquisition and Technology. Navy representatives continue to participate in a DoD Environmental Safety and Occupational Health working group that developed DoD-wide guidance in topics such as system safety review criteria for acquisition programs in the sustainment phase. These evaluation criteria will be used at Flag (Admiral/General) level acquisition program reviews.

- OPNAV Safety Liaison Office continues to review acquisition requirements documents to ensure identification of key safety associated capabilities (components) of new and updated defense platforms. Input includes improved maintenance support, control of occupational health risks such as noise and vibration and requirements for system safety process in underlying program documents.

Acquisition Safety Webpages <http://www.safetycenter.navy.mil/acquisition/default.htm> are located on the Naval Safety Center’s website. They promote the Navy’s acquisition safety message that building systems safer the first time means fewer retrofits and injuries, enhanced productivity, and reduced cost. In FY 2005, three new Acquisition Safety Challenges/Resources sections were completed and posted – **Confined Spaces, Heat Stress, and Laser Radiation**. In addition, the **Noise Control** challenge/resources section was updated during FY 2005. Further information is provided in **Attachment D**.

Anti-Terrorism/Force Protection (AT/FP), Emergency Management, and Homeland Defense

- Completed the *Chemical, Biological, Radiological, Nuclear and High Explosive (CBRNE) Safety*, Chapter for draft OPNAVINST 5100.23G, *Navy Safety and Occupational Health Program Manual*. The Chapter specifies policy and provides guidance on safety and occupational health issues for first responders and policy for CBRN respiratory protection programs. The policy will be issued in FY 2006.
- Provided comments to OSHA document on *Best Practices for Hospital-Based First Receivers for Victims of Mass Casualty Incidents Involving the Release of Hazardous Substances*.
- Participated with NIOSH, OSHA and DoD staff in preliminary discussions for an application for an OSHA alternate standard for the Joint Service General Purpose Mask for protection against CBRN agents, and coordinated with DoD regarding actions necessary for obtaining the alternate standard.
- Participated with the Interagency Working Group on Federal Workplace Emergencies.
- Integrated safety into the following policies: * OPNAV Instruction 3440.17, *Installation Emergency Management Program Manual*, * CNI Instruction 3440.17, *Navy Installation Emergency Management Program Manual*, * SECNAV Instruction 3400.4, *Installation CBRNE Emergency Response Guidelines*. * Draft BUMED Instruction 3440.xx, *BUMED Emergency Management Program*.
- Initiated safety guidance to assist in Hurricane Katrina recovery efforts in the Gulf Coast.

DoD/Federal Councils and Committees – The Navy had less involvement in FY 2005 with Federal OSHA councils than in past years because of limited budgets and time. The Navy had increased involvement with DoD Safety Task Forces, such as the Installation and Industrial Operations Task Force (TF), Motor Vehicle TF, Aviation Safety TF, Workers’ Compensation TF, Acquisition & Technology Program TF, and Military Injury Reporting TF. In September 2005, DoD finalized a number of safety initiatives that will be implemented in FY 2006 through the Defense Safety Oversight Council and the Safety TF.

Hazard Abatement Program - The Navy’s Mishap Prevention and Hazard Abatement (HA) Program funds mishap prevention initiatives and abatement of hazards for which local activities do not have sufficient funds and addresses hazards at multiple activities that can be corrected with common designs. The systematic identification, evaluation, and correction of hazards continue to improve Navy workplaces. Emphasis remains on prioritizing and correcting identified hazardous conditions with the highest degree of risk to ensure cost-effective use of available funds. The table below provides further details for HA funding from FY 2001 to FY 2011. **Attachment E** details critical FY 2005 HA accomplishments.

NAVOSH MISHAP PREVENTION & HAZARD ABATEMENT FUNDING

FUNDING YEAR	APPROPRIATION	AUTHORIZATION (\$ Million)	OBLIGATED (\$ Million)
FY 2001		13.6	12.5
FY 2002		14.1	12.0
FY 2003		13.5	12.8
FY 2004		13.5	10.0
FY 2005		13.0	10.7
FY 2006	11.7	11.3	
FY 2007	11.1		
FY 2008	12.6		
FY 2009	11.9		
FY 2010	12.0		
FY 2011	12.8		

Notes: Appropriation costs begin tracking in FY 2006
Appropriations FY 2006 - FY 2011 are extracted from Navy Accounting System Programming & Budgeting Information System (PBIS) table entitled *2005/Program 2005/Budget*
Authorizations FY 2001 - FY 2005 are summarized from previous Annual Reports to OSHA.
Authorization for FY 2006 is provided by PBIS table (see FY 2006 – FY 2011 explanation above).
Obligations FY 2001 - FY 2005 are summarized from previous Annual Reports to OSHA.
Obligation FY 2005 is provided by NAVFAC documentation.

Integrated Safety Management System (ISMS) – Congress established the Defense Employee Work Safety Demonstration Program (DEWSDP) in 2001. The goal of the program was to improve the safety of Navy civilian employees at eight installations by adopting safety best practices used by private sector employers and determining whether the uses of those best practices improves the work safety record of Navy employees. The best practices focused on management involvement and employee participation. Beginning in FY 2004 to the end of FY 2005, the workers' compensation data demonstrated an average reduction in lost-time case rates of 29% and an average decrease of direct costs (medical bills paid) of 19% across the installations as detailed in the attached table. Although the total number of cases increased from 62 cases in 2004 to 76 cases in 2005, the severity of those injuries decreased as evident in their reduced medical costs from \$76,701 to \$62,183. This program showed some reduction of lost workdays and their associated costs, as well as increased worker involvement in safety programs and improved management-worker relationships. The project will conclude in FY 2006 with a report to Congress detailing the project's outcomes. Lost day rates and medical costs for the eight sites are shown in Table 6 of **Appendix A**.

Major Mishap Review –

Yorktown Naval Weapons Station - A civilian electrician employee of the Naval Facilities Engineering Command was involved in the explosion of a 480/277 electrical distribution panel causing life-threatening 2nd and 3rd degree burns over 80% of his body. Command Standard Operating Procedures have been implemented and specific policies developed prohibiting working on or near energized equipment in excess of 50 volts. A Tri-Service (Army, Air Force, Navy) Electrical Safety Unified Facilities Criteria is currently being written which addresses arc flash hazards and appropriate levels of personal protective equipment.

Navy and Marine Corps Safety Council – was established in FY 2004 as a forum of Navy and Marine Corps safety leaders who advise and recommend safety performance improvements to the Chief of Naval Operations (CNO), the Commandant of the Marine Corps, and the Deputy Assistant Secretary of the Navy for Safety. There are four teams under the Navy and Marine Corps Safety Council: Shore, Afloat, Aviation, and Ground Tactical (Operational). During FY 2005, the decision was made to split the Council into a separate Navy Executive Safety Board and a separate Marine Corps Executive Safety Board. Accomplishments of the Safety Council and its committees are described in **Attachment F**.

Occupational Health: Industrial Hygiene Accomplishments:

- To advise Navy and Marine Corps Safety Council on policy and technical issues related to Occupational Health Nursing, Medicine, Audiology and Industrial Hygiene, BUMED provided occupational expertise to DoD and Navy safety committees. This included Occupational Medicine, Occupational Nursing, Audiology, and Industrial Hygiene specialists.
- The Navy Environmental Health Center (NEHC) recruited and hired a professional PhD level toxicologist to review and revise the scientific process for health hazard assessments.
- To increase occupational health involvement in the Navy acquisition safety process, the NEHC Industrial Hygiene (IH) Directorate reorganized, forming an Acquisition Technical Support Department comprised of IHs and toxicologists to support increasing involvement in weapons systems and facilities acquisition programs. During FY 2005, they added the DD(X) destroyer program to their existing acquisition support programs (i.e., F-35 Joint Strike Fighter; CVN-21 carrier program; and the Weapons System Explosive Safety Review Board).
- To support the development of the Defense Occupational and Environmental Health Readiness System (DOEHRS) for industrial hygiene and DOEHRS Hearing Conservation (HC), NEHC IH Directorate devoted one senior certified IH to development of DOEHRS. BUMED contracted for full-time support for deployment and maintenance of DOEHRS IH and HC and provided subject matter expertise from NEHC and two medical treatment facility volunteers to facilitate implementation.
- The 44th Navy Occupational Health and Preventive Medicine Conference was held 12 to 18 February 2005 in Virginia Beach, Virginia with over 1300 attendees.

Occupational Health: Occupational and Environmental Medicine Accomplishments:

- Supported improvement to the DOEHRS HC Data Repository for early detection of hearing loss and deployment readiness. Participated in bi-monthly software configuration and control board meetings, and assisted in software upgrades.
- Participated on the DoD Hearing Conservation Working Group to develop state-of-the-art, custom communication hearing protection for aviation personnel.

- Provided HC Program compliance statistics on regional hearing conservation programs to determine improvement areas.
- Initiated efforts with Tricare Management Activity (TMA) to integrate DOEHRs-HC and CHCS II (AHLTA) software to reduce clinic workload and duplication of hearing conservation data entry efforts.
- Worked with DoD Federal Employee Compensation (DFEC) Working Group to resolve workers' compensation issues, specifically focusing on appropriate Force Health Protection for DoD civilians during all phases of deployment.
- Ensured safe and healthful work place for Navy and Marine Corps workforce through comprehensive professional programs - medical surveillance, certification exams, work-site visits and case management.

OSHA Citation Website - In FY 2005, the Navy continued to monitor OSHA citations issued to Navy commands. The citations are posted on an internal Navy website and detail identified hazards by installation, inspection date, type of inspection, standard(s) cited, and the abatement date. These tables assist all installations in identifying areas of potential illness and injury and support lessons learned from violations that have been cited previously for a substantially similar condition. The website is updated quarterly from data received from the Department of Labor - OSHA. Five more inspections were conducted in FY 2005 than in FY 2004 with an increase of 27 citations. The increase in the number of citations can be explained by the corresponding increase in inspections since 2003 when only 18 inspections were conducted. **Attachment G** contains an example of a citation posted on the website as well as further analysis of trends. Further information on citations is provided in **Attachments A and H**.

OSHA Inspections Performed and Citations Issued

Fiscal Year	Total # Inspections	Total # Citations	Willful	Repeat	Serious	Other
2005	34	53	0	0	37	16
2004	29	26	0	1	20	5
2003	18	16	0	0	10	6
2002	23	34	0	3	23	8

Policy and Guidance

- Finalized and issued an updated Navy and Marine Corps Mishap and Safety Investigation, Reporting, and Recordkeeping Manual, OPNAVINST 5102.1D, dated 7 January 2005. The policy can be found at http://neds.daps.dla.mil/Directives/5102_1D.pdf.
- Continued efforts to update shore safety and occupational health (SOH) program policy OPNAVINST 5100.23G. Two new chapters will be fall protection and emergency management (to include Anti-Terrorism/Force Protection (AT/FP) safety policy). Policy to be finalized and issued in FY 2006.
- Began the update of the Navy Traffic Program OPNAVINST 5100.12G, last updated in 2001.

Safety Success Stories – During FY 2005, four new Success Stories were developed and posted on the Naval Safety Center's website at <http://www.safetycenter.navy.mil/success/default.htm>. Success stories in FY 2005 focused on areas such as ergonomics, prevention of carbon monoxide poisoning, and respiratory protection. The Success Stories demonstrate the Navy's commitment to the safety, health, and quality of life of Navy personnel and their families and demonstrate the value added by safety and best business practices. Additional information and summaries of the four Safety Success Stories posted in FY 2005 are provided in **Attachment H**.

Studies – The Center for Naval Analyses (CNA) conducted a study, "Statistical Analysis of Hearing Loss Among Navy Personnel," published in February 2005. This study showed statistically an increased risk of hearing loss for Navy members who spend time aboard Navy ships. See the study at the following URL: <http://safetycenter.navy.mil/osh/afloat/downloads/cnafeb05.pdf>. Another study was initiated in FY 2005 to identify corrective actions needed to reduce hearing loss to U.S. Navy personnel.

Voluntary Protection Program (VPP)

- Naval Air Station (NAS) Key West was the first DoD base accepted into the OSHA Challenge Program. They completed Stage 1 of the Program in FY 2005 and are working on completing Stage 2. NAS Mayport was accepted into the OSHA Challenge Program and is beginning Stage 1 of the Program.
- At the end of FY 2005, Naval Weapons Station Charleston, and Naval Submarine Base Kings Bay, were beginning their applications for the VPP Star Program.

- A joint Navy/Marine Corps Working Group (WG) chartered by the Shore Safety Committee was reorganized in FY 2005 to become the VPP WG. The purpose of the VPP WG is to provide tools, criteria, and guidance to promote Navy and Marine Corps mishap reduction goals.
- The Portsmouth Naval Shipyard in Kittery, Maine became the first Navy VPP Star site and was awarded VPP Star recognition and the VPP Flag on 25 March 2005.
- Two more naval shipyards, Puget Sound Naval Shipyard and Intermediate Maintenance Facility and Norfolk Naval Shipyard submitted OSHA VPP Applications in FY 2005.



Speakers VPP "Star" Celebration – Portsmouth Naval Shipyard 25 March 2005 - (l to r) CAPT Kevin McCoy, Asst. Deputy CDR of Industrial Operations, NAVSEA; Congressman Jeb Bradley, NH; Congressman Tom Allen, ME; Mr. Paul O'Connor, Pres. Federal Employees Metal Trades Council; CAPT Jonathan Iverson, CDR PNSY; Mr. Jonathan Snare, Acting Asst. Secy. Of Labor OSH; Ms. Marthe Kent, Reg'n'l. Admin., OSHA; Ms. Connie DeWitte, DASN (Safety); VADM Phillip Balisle, CDR NAVSEA.

WEB Enabled Safety System (WESS) - During FY 2005, the Naval Safety Center continued to make customer requested enhancements and improvements to WESS. In all, ten new releases were deployed resolving a total of 813 requests. These releases provided improved functionality, additional queries and a better interface for the customer. In May, WESS was enabled with the ability to import ESAMS reports to reduce customer workload by eliminating the need to enter mishap data separately into ESAMS and WESS. In July, the new Aviation Hazards Module was released providing the Navy and Marine Corps aviation communities with an on-line system for reporting and tracking aviation hazards.

b. Describe efforts in the following areas.

(1) Assessing the effectiveness of your agency's OSH program:

Effectiveness of OSH programs is measured by the Naval Inspector General for shore commands and by the Board of Inspection and Survey for ships and submarines. In addition, the Naval Audit Service and the Center for Naval Analyses conduct, on average, one special safety study each year. How effective is the Navy's OSH program? The strengths of the Navy's OSH program listed alphabetically include:

- Centralized Hazard Abatement Funding
- Documented Navy Safety Success Stories with returns on investment (ROI)
- Enterprise Safety Application Management System (ESAMS)
- Hazard Analysis Including Acquisition Safety
- Hazard Reporting
- Industrial Hygiene Service
- Navy Safety Websites
- Occupational Health Care
- OSH Involvement in Emergency Management
- Strong Safety Policy with Clear Roles and Responsibilities
- Training for Professionals
- Web Based Mishap Reporting System (WESS)
- VPP Star Recognition at Portsmouth Naval Shipyard, with Additional Shipyards Applying for VPP Recognition
- Worksite Analysis

Some of the hazard prevention areas for which Navy is a leader listed alphabetically are:

- Asbestos
- Ergonomics
- Explosive Safety
- Fall Protection
- Laser Safety
- Lead
- Vibration

Some of the Navy's opportunities for improvement include:

- Improving worker training (particularly peer reviewed electronic training)
- Resourcing safety more effectively
- Implementing the Navy Executive Safety Board
- Increasing safety involvement in the acquisition process
- Analyzing data for trends and effective prevention strategies
- Integrating safety into all aspects of Navy work, from research to deployed forces
- Improving Hazardous Material Control and Management, including nanomaterials
- Establishing consistent use of Job Hazard Analyses
- Improving data systems to increase speed and capability for analysis
- Developing continuous improvement of personal protective equip.
- Ensuring accountability at all levels
- Addressing Nanotechnology

(2) Identifying, assessing, and resolving OSH problems, including system of (a) providing recognition to outstanding achievers and (b) establishing accountability and performance standards for managers, supervisors and employees.

(a) To recognize outstanding efforts in risk management and mishap prevention, the CNO Safety and Occupational Health Shore Activity Awards Program provides recognition to a command with the best overall SOH program record; to activities for attaining excellent records in SOH; and to individual SOH professionals who have made significant contributions to a command/activity or overall Navy SOH program. The awards recognize outstanding contributions to operational readiness and conservation of resources through effective risk management. Added to outstanding safety records, activities selected must have aggressive, innovative mishap prevention programs. Awards are made to one small, medium, and large activity in industrial and non-industrial categories. There are two CNO award categories presented to one military and one civilian manager and one civilian specialist/technician at the HQ, region, and individual activity level. The Secretary of the Navy has also developed safety awards, presented as official recognition of commendable safety records attained by activities. Secretary of the Navy activity awards are presented each fiscal year to Navy shore activities and fleet operational/support units located ashore, based on the overall quality of their safety programs and records. At the local level, activity commanding officers develop and implement an activity safety awards program applicable to their mission and operations.

(b) There are two major tools for establishing and tracking accountability: (1) Navy shore safety and health policy in OPNAVINST 5100.23G designates safety roles and responsibilities for managers, supervisors, and employees. (2) The Enterprise Safety Application Management System (ESAMS) tracks accountability of supervisors and managers. For civilians, the system links supervisors' performance to the standard Federal government performance elements.

(3) Enhancing employee participation, involvement and consultation in the OSH program.

The Naval Sea Systems Command's leadership directing naval shipyards to compete for OSHA Voluntary Protection Program Star status has resulted in greatly increased employee participation, involvement and consultation. VPP participation is being encouraged throughout the U.S. Navy.

6. RESOURCES - Explain significant one-time or additional permanent resources allocated to the OSH program in FY 2005 for areas such as workplace HA, R&D, data systems, staffing, and training.

The WESS system had an investment of \$805,000 to improve efficiency and effectiveness of mishap reporting.

7. GOALS - Identify annual OSH plans, goals, and objectives, and significant OSH initiatives planned and programmed for FY 2006 and beyond, including your agency's FY 2006 performance targets for each of the four goals under the SHARE Initiative. [Listed alphabetically]

Acquisition Safety at <http://www.safetycenter.navy.mil/acquisition/default.htm>.

- Continue to re-invigorate system safety/put up front in acquisition to identify and mitigate hazards.
- Add two Challenge/Resources sections to the Acquisition Safety web pages - Radiofrequency Radiation and Hazardous Energy Control.

- Review DoD and Navy acquisition policy/guidance to ensure optimal integration of OSH guidelines.
- Increase Safety and Occupational Health (SOH) membership and participation in acquisition teams.
- Insert SOH criteria into acquisition process by identifying key areas, (e.g., ergonomics, noise, fall protection) and describing minimum acceptable criteria for system design and performance.

Anti-Terrorism/Force Protection (ATFP), Emergency Management, and Homeland Defense

- Respond to AT/FP Emergency Management/Homeland Defense requests from DoD and SECNAV related to occupational safety and health (OSH).
- Implement the Navy Respiratory Protection Plan of Action for chemical, biological, radiological, and nuclear (CBRN) respirators.
- Participate on emergency management teams throughout Navy to address OSH functional areas (e.g., risk management, personal protective equipment, hazard and risk communication, etc.).
- Coordinate integration of OSH into Naval ashore and afloat AT/FP, Emergency Management/Homeland Defense policy and guidance, hazard assessments, and response support capabilities.

DoD/Federal Councils and Committees

- Continue to participate on the DoD Safety Oversight Council (DSOC) and DSOC task forces such as the Acquisition and Technology Task Force and the Installation and Industrial Operations Task Force.
- Participate on OSHA Federal Councils, as resources permit.

Hazard Abatement Program

- Complete the Mishap Prevention and Hazard Abatement (HA) Projects approved in FY 2005.
- Prioritize and select FY 2006 Mishap Prevention and HA Projects, advocating a stronger return on investment focus in project selection (\$11.3M appropriated for projects).
- Continue to streamline the project process and find innovative ways to implement solutions globally.
- Continue emphasis on mishap prevention efforts (e.g., ergonomics, fall prevention, etc.).

Leadership

- Foster initiatives to enable top leadership to demonstrate their commitment to SOH.

Major Mishap Review

- Continue documenting “Lessons Learned” from serious mishaps in the fleet and begin posting on the Naval Safety Center website.
- Continue to rigorously investigate work-related fatalities to prevent recurrence & improve workplaces.

Navy Executive Safety Board

- Stand up new Navy Executive Safety Board, conduct meetings, and advise and recommend safety performance improvements to the CNO and the Deputy Assistant Secretary of the Navy for Safety.
- Support Navy Shore and Afloat Safety Committees’ efforts.

Occupational Health

- Successfully deploy Defense Occupational and Environmental Health Readiness System (DOEHRs) – Industrial Hygiene (IH) to four Medical Treatment Facilities (MTFs).
- Continue to use and improve BUMED Occupational Health (OH) and Safety Program assessment tools.
- Provide Systems Command programmatic support and OH experts to acquisition programs.
- Reduce percent of “no show” visits in OH clinics from baseline of 12 percent.
- Continue to improve hearing conservation statistics and annual program compliance metrics.
- Emphasize to medical commanders the importance of supporting line counterparts in achieving Hearing Conservation Program compliance by facilitating worker notification, scheduling, and completion of follow-up testing within 30 days of an identified Significant Threshold Shift.

OSHA Citation Website

- Continue to monitor OSHA citations issued to Navy and post on an internal Navy website to assist all installations in identifying areas of potential risk.

Policy and Guidance

- Finalize and issue update of shore safety and occupational health (SOH) program (OPNAVINST 5100.23G), Traffic Safety (OPNAVINST 5100.12H), and Navy Recreation, Athletics and Home Safety Program (OPNAVINST 5100.25B).
- Initiate update of afloat SOH program policy (OPNAVINST 5100.19D).
- Update overarching safety policy (OPNAVINST 5100.8H).

Safety Management System – Enterprise Safety Application Management System (ESAMS)

- Complete ESAMS user training at three remaining regions in the continental U.S. and commence training at all regions outside the United States.
- Implement and use ESAMS at all Commander Navy Installations (CNI) commands and all tenant commands receiving Base Operating Support Occupational Safety & Health services from CNI regions.
- CNI Fire and Emergency Services will begin using ESAMS to manage their program.

Safety Success Stories <http://www.safetycenter.navy.mil/success/default.htm>

- Post ten success stories to the website that demonstrate the Navy's commitment to the safety, health, and quality-of-life of our Navy personnel. Demonstrate through the stories the value added by safety and how best business practices result in productivity gains and cost savings. Document return on investment.

SHARE - Goals are listed in the Accomplishments section of this report on page 2.

Studies

- Naval Audit Service evaluate Navy Ergonomics Program implementation effectiveness.
- Center for Naval Analyses evaluate military hearing loss and shipboard noise to identify best ship design technologies.

Traffic Safety

- Continue traffic safety efforts through the Naval Safety Center, CNI, the Navy Shore Safety Committee, additional funding, increased mishap investigation, and other initiatives.
- Make completed Skill Enhancement RiderCourseSM available to Navy motorcycle riders in FY 2006.
- Continue promotion/participation in national traffic safety awareness campaigns (Click-it-or-Ticket, Drive Safely to Work Week, Put the Brakes on Fatalities, etc).

Voluntary Protection Program (VPP)

- Continue to pursue OSHA VPP recognition at selected Navy activities.
- Recommend changes to reduce institutional barriers to VPP.
- Support the DoD VPP Center of Excellence.
- Recommend metrics to monitor participating installation progress in DoD VPP Center of Excellence.
- Provide information and technical support on VPP.
- Explore opportunities to create a Navy/OSHA partnership.

WEB Enabled Safety System (WESS)

- Develop version of WESS for aviation hazard reporting that can be used without internet connectivity.
- Develop a chain of command solution that will assist customers with report management .
- Increase training availability to the fleet for WESS mishap reporting.
- Increase communication to fleet users regarding WESS status, updates , and common errors .
- Improve help screens and screen text for customer usability.
- Develop a streamlined WESS Combat Zone Report meeting both aviation and general Navy mishap reporting requirements.
- Develop hard copy worksheets for customers to collect data prior to input in WESS .
- Continue effort to work enhancement requests that customers identify and report via feedback .

Workers' Compensation

- Coordinate with Human Resources staff on their initiative to utilize centralized funding for reemployment of civilians who have been injured on the job.
- Coordinate with Human Resources to improve compensation care management.

ATTACHMENTS

Attachment A - USN Consolidated Injury/Illness Data Summary

Attachment B – FY 2005 Mishap Profiles (One or More Reported Lost Work Days)

Attachment C - Examples of Traffic Safety Accomplishments in FY 2005

Attachment D - Acquisition Safety Website and Additional Acquisition Safety Accomplishments

Attachment E - Hazard Abatement

Attachment F - Shore Safety Committee & Afloat Safety Committee Accomplishments for FY 2005

Attachment G - OSHA Citations

Attachment H - Safety Success Stories

Attachment A - USN Consolidated Injury/Illness Data Summary

(**Note:** Previous year data extracted from previous U.S. Navy Annual Reports to OSHA)

TABLE 1: OWCP INJURY & ILLNESS DATA

Number of employees is obtained from the Office of Civilian Human Resources (OCHR)

U.S. Navy (USN)

CATEGORY	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05
Total Cases less 1 st Aid Cases*	7,851	7,576	7,124	6,989	6,987	6,405	4,837**
Fatalities***	4	8	1	1	0	2	2
Lost Time Cases*	4,198	3,874	3,419	3,331	3,619	3,323	2,663**
Avg. Number of Employees	188,543	169,168	166,031	166,834	167,865	178,397	182,315

Notes:

* Total Cases and Lost Time Cases represent “the new cases” that were created in FY 2005.

**These figures were prepared by the DoD CPMS, ICUC Division from the Defense Portal Analysis Center (DefPAC).

***The Navy does not track those fatalities reported by OWCP that occur after a long illness or that would primarily have been reported to close out a Workers’ Compensation claim.

U.S. Navy Total Injuries & Illnesses

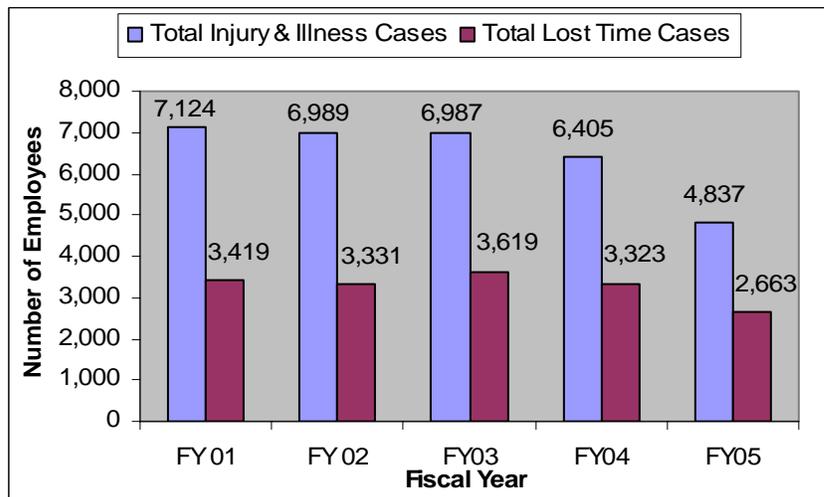


TABLE 2: OWCP RATES OF INJURIES & ILLNESSES PER 100 EMPLOYEES

Data is obtained from the USDOL OWCP database. USN rates are based on cases without first aid.

U.S. NAVY (USN)

CATEGORY	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05
OWCP Total Case Rate	4.16	4.48	4.29	4.19	4.16	3.59	3.23
OWCP Lost Time Case Rate	2.23	2.29	2.06	2.00	2.16	1.86	1.76

U.S. Navy Injury Rates

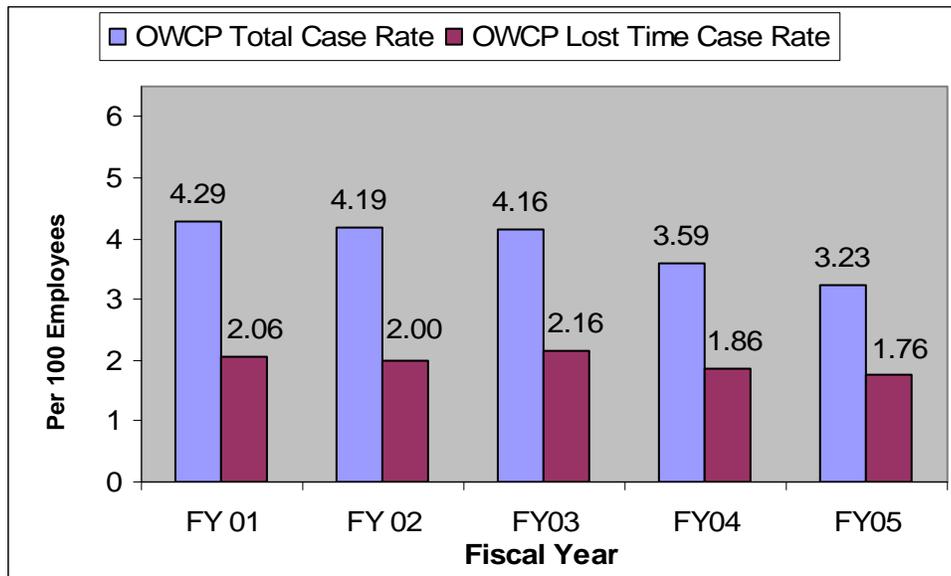


TABLE 3: WORKERS' COMPENSATION DATA

Data reflects the workers' compensation cost obtained from the USDOL OWCP database.

U.S. NAVY (USN)

CATEGORY	CBY 99	CBY 00	CBY 01	CBY 02	CBY 03	CBY 04	CBY 05
Chargeback Cases	25,256	24,184	23,526	23,325	19,535	21,866*	18,017*
Total Cost (\$ Million)	221.6	222.3	227.3	227.2	225.6	222.8*	216.7*
Total # Employees	188.5K	169.2K	166.0K	166.8K	167.9K	178.4K	182.3K
Avg. Cost per Case (\$)	8,774	9,192	9,662	9,740	11,549	10,190	12,032
Avg. Cost per Employee (\$)	1,176	1,314	1,369	1,362	1,344	1,249	1,189

*These figures were prepared by the DoD CPMS, ICUC Division from the USDOL OWCP Chargeback bill.

U.S. Navy Workers' Compensation Costs

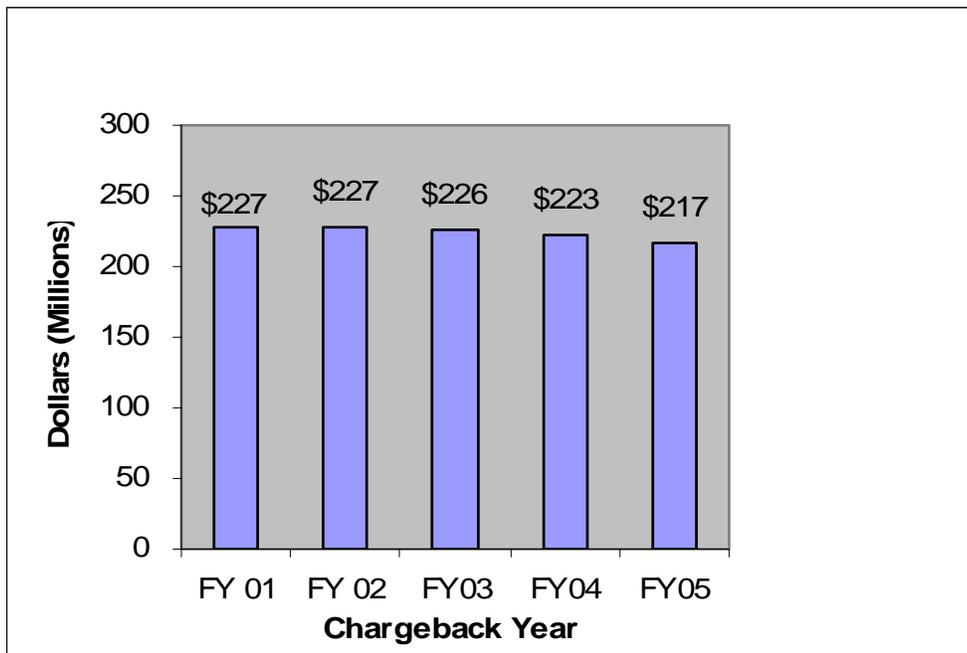


TABLE 4: CONTINUATION OF PAY (COP)

This data reflects the COP data obtained from the Defense Finance & Accounting System (DFAS).

U.S. NAVY (USN)

CATEGORY	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05
COP Cost (\$ Thousand)	4081.3	3739.6	3544.8	3007.5	3648.9	3140.4	2152.2

U.S. Navy Continuation of Pay

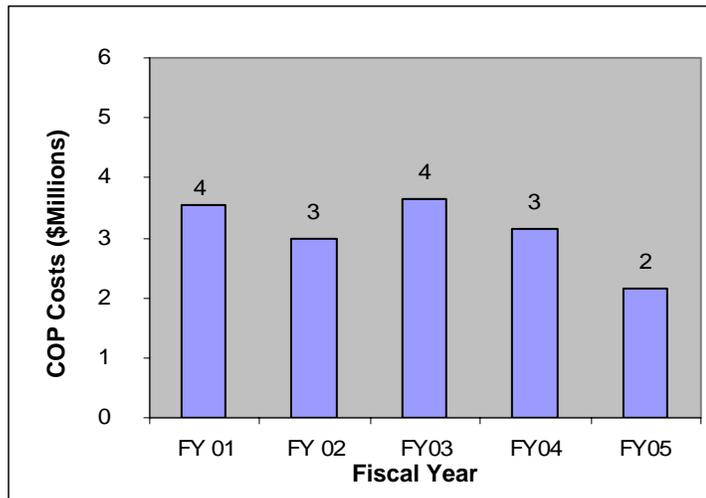


TABLE 5: OSHA CITATION SUMMARY – BY TYPE

CATEGORY	FY 01	FY 02	FY 03	FY 04	FY 05
Number of inspections	25	23	18	29	34
Willful	0	0	0	0	0
Serious	45	32	10	20	37
Repeat	0	3	0	1	0
Other	11	9	6	5	16
Total Citations	56	44	16	26	53

NOTE: The top three OSHA citations for FY 05 were: Powered Industrial Trucks (10), Electrical (10), and Machine Guarding (9).

TABLE 6: INTEGRATED SAFETY MANAGEMENT SYSTEM (ISMS)

Lost Day Rates and Total Medical Costs, FY 2004-2005

Sites	Total Lost Day Rates*			No. Claims () & Total Medical Costs**		
	2004	2005	% Change	2004	2005	% Change
Charleston NWS	22.50	14.55	-43%	(12) \$ 8,902	(12) \$ 1,179	-86%
Guantanamo Bay NS	1.62	0.00	-100%	(8) \$ 1,027	(7) \$ 0	-100%
Gulfport NCBC	53.37	91.75	+72%	(3) \$ 0	(3) \$35,301	N/A
Jacksonville NAS	21.54	15.36	-29%	(12) \$18,694	(7) \$ 2,420	-87%
Key West NAS	47.28	8.92	-81%	(12) \$33,319	(15) \$14,536	-56%
Kings Bay NS	79.67	30.74	-61%	(5) \$ 7,425	(12) \$ 557	-92%
Mayport NS	5.29	4.52	-15%	(5) \$ 3,163	(16) \$ 8,090	+156%
Pascagoula NS	8.71	5.72	-34%	(5) \$ 4,171	(4) \$ 100	-97%
Total	N/A	N/A	N/A	(62) \$76,701	(76) \$62,183	-19%

* The number of people receiving compensation times 200,000/ divided by the total hours recorded for the pay period or past 26 pay periods. (COP Days + LWOP Days) X 200,000/Prorated Hours

** Number of Claims () denotes the number of workers' compensation claims filed or created and the Total Medical Costs denotes the medical bills paid by DOL within the specified fiscal year from 01 Oct through 30 September.

ATTACHMENT B

[Note: See Trend Analysis on Page B-2]

FY 2005 MISHAP PROFILES (ONE OR MORE REPORTED LOST WORK DAYS)

WORK TASK	FY 05	FY 04	FY 03	SOURCE OF MISHAPS	FY 05	FY 04	FY 03	MEDICAL DIAGNOSIS	FY 05	FY 04	FY 03	BODY PART	FY 05	FY 04	FY 03
INDUSTRIAL	708	665	646	SLIPS/TRIPS/FALLS	514	430	402	SPRAINS, STRAINS	873	704	693	BACK	432	429	426
SERVICES	467	370	373	OVER-EXERTION	366	336	321	CUTS/ ABRASIONS/ SCRATCHES/ LACERATIONS	267	107	104	WRISTS, HANDS, FINGERS	419	223	211
MISCELLANEOUS	451	273	331	BODILY CONDITIONS	247	264	263	FRACTURES	131	128	126	FEET, ANKLES, LEGS, TOES	287	280	305
CLERICAL	187	83	132	EXPOSURE TO	167	105	137	INJURIES TO MUSCLES, TENDONS, LIGAMENTS, JOINTS	113	71	191	HEAD, FACE, EARS	275	155	139
CONSTRUCTION	109	84	42	BENDING/ CLIMBING/ REACHING/ TWISTING	114	79	92	TRAUMATIC INJURIES AND DISORDERS	55	241	171	KNEES	201	185	148
RECREATION	90	57	24	CONTACT WITH OBJECTS	161	76	87	BURNS	41	24	39	MULTIPLE BODY PARTS	118	137	188
MEDICAL	49	20	31	CAUGHT IN/ UNDER/ BETWEEN	71	63	63	EFFECTS OF ENVIRONMENTAL CONDITIONS	21	14	6	TRUNK, CHEST	167	149	147
PROFESSIONAL/ TECHNICAL	39	57	79	MOTOR VEHICLE RELATED	19	18	48	BACK PAIN/HURT BACK	14	43	31	ARM	120	85	88
TRAVEL	28	18	30	REPETITIVE MOTION	60	31	45	RESPIRATORY SYSTEM DISEASES	5	11	3	PELVIC REGION	45	43	38
WEAPONS	20	34	18	RUBBER OR ABRADED	45	30	17	STRESS	3	4	1	NECK	43	26	42
TRAINING	20	16	28	FIRE/EXPLOSION RELATED	4	4	10	ERGONOMIC INJURIES	3	13	9	BODY SYSTEMS	41	22	42
RESEARCH & DEVELOPMENT	4	9	19	COLLISION BETWEEN VEHICLES OR EQUIPMENT	11	2	9								
				STRUCK BY/STRUCK AGAINST	362	223	215								
OTHER	23	80	36	OTHER	47	105	80	OTHER	402	245	266	OTHER	47	32	15
TOTAL	2195	1766	1789	TOTAL	2195	1766	1789	TOTAL	2195	1766	1789	TOTAL	2195	1766	1789

Data Source: Naval Web Enabled Safety System (WESS)

When compared with FY 2004, the FY 2005 lost work day mishaps in the WESS system increased 24%, from 1,766 to 2,195. We looked at those 2,195 mishaps four ways and identified the following trends. Data covers civilians only.

Work Task

- Industrial mishaps increased 6% (from 665 in FY 2004 to 708 in FY 2005)
- Clerical mishaps increased 125% (from 83 to 187)
- Construction mishaps increased 30% (from 84 to 187)
- Mishaps involving weapons decreased 41% (from 34 to 20)

The Source of Mishaps

- Slips/trips/falls increased 20% (from 430 to 514)
- Overexertion mishaps increased 9% (from 336 to 366)
- Repetitive Motion mishaps increased 94% (from 31 to 60)
- Exposure to mishaps increased 59% (from 105 to 167)

Medical Diagnosis

- Sprains/Strains increased 24% (from 704 to 873)
- Cuts/Abrasions/Scratches/Lacerations increased 150% (from 107 to 267)
- Traumatic Injuries decreased 77% (from 241 to 55)
- Burns increased 71% (from 24 to 41)
- Back Pain/Hurt Back decreased 67% (from 43 to 14)

Body Part – Mishaps involving the

- Back stayed the same (from 429 to 432)
- Wrists/Hands/Fingers increased 88% (from 223 to 419)
- Head/Face/Ears increased 77% (from 155 to 275)
- Knees increased 9% (from 185 to 201)
- Arms increased 41% (from 85 to 120)

ATTACHMENT C

TRAFFIC SAFETY ACCOMPLISHMENTS IN FY 2005

- Commander Navy Installations (CNI) commenced operation of a centrally managed Navy Traffic Safety Program in FY 2005. The Traffic Safety Program provides critical training and behavior modification and enforcement support aimed at meeting the Navy's 75% "mishap reduction goal" by the end of 2008. Training includes nationally accredited safety courses for motor vehicle, motorcycle, and emergency vehicle operators. Behavior modification and enforcement support includes peer mentoring programs; subordinate mentoring programs; multi-media traffic safety awareness campaigns; and seat belt and personal protection equipment surveys. Key Program accomplishments include:
 - A regional seat belt law enforcement/compliance challenge (Chief's Challenge) with monetary/prize awards was established. Naval Amphibious Base Little Creek, Norfolk, VA and Naval Air Engineering Station Earle, NJ both won National Awards for their efforts.
 - Navy Traffic Safety Program personnel worked with the Motorcycle Safety Foundation (MSF) to develop the Skill Enhancement RiderCourseSM. This next generation of motorcycle safety training teaches advanced riding concepts that address a major contributing factor to motorcycle accidents – improper cornering. This course will be available to Navy motorcycle riders in mid FY 2006.
 - Navy Traffic Safety Program and Naval Safety Center are developing programs for identifying and helping "at-risk" personnel. Programs under development include behavioral risk assessments; and remedial counseling programs.
 - The Navy Traffic Safety Program has reduced the wait time for traffic safety training from as high as nine months to less than two weeks. The FY 2005 traffic safety training student throughput increased an average of 300% over FY 2004 numbers.
 - In the interest of continuous improvement, the Navy Traffic Safety Program is working with other military services and the civilian sector to identify best practices to reduce traffic mishaps. This includes: more effective programs for training and behavior modification; tools for identifying at high risk personnel; and programs for mitigating risk.
 - Navy Traffic Safety Program personnel have supported "Click-it-or-Ticket" campaigns on major Navy installations in Norfolk, VA; San Diego, CA; Jacksonville, FL; and Pearl Harbor, HI. These campaigns reinforced the need to wear seat belts. Navy Traffic Safety Program personnel have also supported similar campaigns for personal protective equipment for motorcycles.
 - Navy Traffic Safety Program personnel in Jacksonville, FL worked with personnel from the local police departments, fire departments, and emergency

medical services to conduct a Motorcycle Safety Rodeo. The rodeo was attended by several hundred Navy personnel and was a resounding success in raising motorcycle safety awareness. The template used for the Jacksonville rodeo is being used to organize similar events at other Navy installations in the spring of 2006.

- The Naval Safety Center accomplishments in Traffic Safety for FY 2005 include:
 - The "Critical Days of Summer" campaign was launched by the Naval Safety Center on 13-20 May within the continental U.S. (CONUS) and was presented to Safety Managers and Naval Personnel E-5 and above to reinforce safe driving tips and seasonal traffic safety.
 - Train the Trainer courses included: Driver Safety Training, Emergency Vehicle Operators Training, and Motorcycle Training.
 - Traffic/Off-Duty Recreation Surveys were conducted CONUS to ensure compliance with current Navy regulations.
 - The Naval Safety Center sponsored annual Mid-Atlantic "Partnering with the Military" meetings dealing with Virginia's Traffic Safety Programs to share new initiatives and projects.

ATTACHMENT D ACQUISITION SAFETY WEBSITE AND ADDITIONAL ACQUISITION SAFETY ACCOMPLISHMENTS

Acquisition Safety Website

Naval Safety Center | Checklists | Downloads | Instructions | ORM | Presentations | Site Map | Search

Afloat | Ashore | Aviation | Magazines | OSH | Statistics | Training

Acquisition Safety

Protecting our people is critical to our mission of national defense. We are dedicated to ensuring our Sailors and Marines are ready at all times to carry out their mission by providing them with safe and healthful work environments. One place to start is in acquisition.

Resources

<p>Challenges</p> <ul style="list-style-type: none"> • Confined Spaces • Ergonomics/HSI • Fall Protection • Noise • Ventilation • Vibration 	<p>Program Elements</p> <ul style="list-style-type: none"> • System Safety <p>General Resources</p> <ul style="list-style-type: none"> • Acquisition Safety
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The Naval Safety Center's *Acquisition Safety* web pages are located at <http://www.safetycenter.navy.mil/acquisition/default.htm>. In FY 2005, three new Acquisition Safety Challenges/Resources sections were completed and posted to this public domain section of the website. These are **Confined Spaces**, **Heat Stress**, and **Laser Radiation**.

Two additional sections – **Electromagnetic Radiation Hazards** and **Electrical Shock** were drafted and sent to Navy subject matter experts for review. These sections will be finalized and posted in FY 2006. In addition, the **Noise Control** challenge/resources section was updated during FY 2005. Background information and further details on acquisition safety and FY 2005 accomplishments are provided below.

The *Acquisition Safety* web pages began in FY 2002. The goal of this component of the Naval Safety Center website is to promote incorporation of safety and occupational health factors into all stages of the Defense Acquisition Process by discussing the challenges, communicating information on Best Practices, and sharing successful Navy acquisition safety and health initiatives. *Through these Acquisition Safety web pages, we strive to get out the message that building ship systems safer the first time means fewer retrofits, no injuries, enhanced productivity, and reduced cost.*

The Acquisition Safety web pages are a work in progress for addressing the most significant safety challenges facing the Defense Acquisition and Navy Occupational Safety and Health communities during planning of ship, weapons, and aircraft systems.

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Noise Control Aboard Navy Ships 2. Vibration 3. Ergonomics/Human Factors Engineering (HFE) 4. Confined Space Entry 5. Heat Stress | <ol style="list-style-type: none"> 6. Fall Protection 7. Ventilation 8. Laser Radiation 9. Electromagnetic Radiation 10. Electrical Shock and Other Hazardous Energy Sources |
|---|--|

Each of the ten Safety Challenges featured in the web pages is approached from two perspectives: The Challenge and Resources/Best Practices. The **Challenge** sections define and discuss each safety risk and its consequences in terms of human, time, and material costs as well as military readiness. The **Best Practices** sections provide links to general information on each safety challenge topic, as well as resources on research studies, technology, Navy and DoD instructions, industry standards, and other acquisition websites containing information relevant to the specific safety challenge.

The **Confined Spaces** Safety Challenge, completed and posted to the Acquisition Safety web pages in FY 2005, outlines the hazards encountered when entering and working in confined spaces aboard Navy ships.

There are many such confined spaces aboard ship such as cargo holds, tanks, pump rooms, cofferdams, and duct keels. The discussion centers on the importance of planning during design and acquisition of ship systems to minimize or eliminate the need for confined space entry during ship construction, use, repair and overhaul, and ship salvage and dismantlement. Planning and management of these spaces where confined space entry is unavoidable during each of these different ship life cycle phases is also discussed. The Confined Spaces challenge emphasizes and



explains the hazards of asphyxiant, toxic, flammable and explosive atmospheres found in confined spaces. Design challenges discussed involve inspecting, monitoring and maintaining the many tanks found onboard Navy ships; entry and exit limitations; and fall hazards. Recommendations for design innovations that can be incorporated during ship planning and design phases include: remote monitoring and inspection systems, providing special access for inspection where entry is required; providing adequate ventilation; use of materials that reduce the need for maintenance; designing confined space fall protection systems; and designing adequate means of entry and exit. **Please note:** this section will be updated when NAVSEA's Maritime Confined Space policy (Gas Free Engineering Manual, SAF-010) is revised and issued.



Ships Serviceman 3rd steam irons a shirt in the laundry room aboard the aircraft carrier USS Enterprise (CVN 65).

The **Heat Stress** Safety Challenge outlines the design challenges in many shipboard spaces where high heat and humidity are a factor such as engineering spaces, galleys, sculleries, laundries, and weather decks in hot climates especially during flight deck operations, exercises and drills. Also discussed are the deleterious affects of heat stress on work performance, morale, and mental alertness, such as increased risk of workplace accidents that ultimately compromise the readiness of the ship. Types and symptoms of heat stress illnesses are explained. Special emphasis is placed on the fact that heat stress conditions can have a significant, but often unappreciated, impact on manning requirements and life-cycle costs for manpower and decreased productivity over the life of a system. Shipboard design and maintenance challenges to controlling heat stress conditions in the above mentioned spaces include

ventilation system deficiencies, steam and water leaks, and missing or deteriorated insulation on steam piping, valves, and machinery. Recommendations focus on the need to apply human systems integration into ship design. The Naval Sea Systems Command (NAVSEA) has increasingly stressed human systems integration (HSI), addressing manpower, training, occupational safety and health, habitability and survivability, and design of systems and equipment to match the abilities, dimensions, and limitations of the people who will operate and maintain them. Specific design recommendations include: improvement in ship thermal insulation design, selection, and maintenance; new designs in galley ventilation; designing spot cooling into ship spaces; use of control booths; remote monitoring of high heat spaces; and protective covering on weather decks.

Laser Radiation is the third acquisition safety challenge completed in FY 2005. Exposure to lasers can be hazardous, resulting in permanent and disabling eye injuries, skin damage, and harmful effects to other biological systems. The Department of the Navy's policy (OPNAVINST 5100.19 Series and OPNAVINST 5100.23 Series) is to identify and control Laser Radiation Hazards early during the system design and development process. This section of the Acquisition Safety web pages concentrates on the safety and health challenges of laser radiation in the shipboard environment and the Navy's success in designing systems that eliminate risk. Recommendations include following the Navy's laser safety design and review process as outlined in [OPNAV Instruction 5100.27A/Marine Corps Order 5104.1B](#), Navy Laser Hazards Control Program, which also provides a "*Laser Safety Design Requirement Checklist*" for the designer, procuring activity, or personnel responsible for laser safety to ensure they comply with the laser safety design requirements for military lasers and associated support equipment; implementing laser engineering controls as the primary method of safety in the acquisition design process; use of protective housing with interlock systems; remote firing and monitoring consoles; and service access panels.



Sailors attach a laser guidance unit to a general-purpose bomb in an ammunition magazine aboard USS Kitty Hawk.

Safety in Acquisition of New and Updated Defense Systems and Equipment

- It is vital to insure safety in the initial design and acquisition of new products. DoD and the Navy have collaborated with the defense industry in the development and implementation of system safety practice through use of Military Standard 882 (System Safety) as a required standard practice in DoD and Navy acquisition policy (DoDI 5000.2 and SECNAVINST 5000.2C). These regulations apply to all acquisition programs and require risk identification, documentation and risk acceptance at a management level consistent with the risk.
- The Navy has maintained a strong presence in the system safety community and continues to integrate safety into the management process. For example, a separate Navy weapons safety track was sponsored at the International System Safety Conference (August 2005 in San Diego). The OPNAV Safety Liaison office organized and chaired a session (5 papers) on occupational health and safety topics, including several areas not consistently addressed by system safety. (See <http://safetycenter.navy.mil/acquisition/conf.htm>)
- The Navy participated in the Joint Service Safety Chiefs Meeting (March 2005) that developed a primary action item to evaluate underlying mishap issues and root causes associated with defense systems. A follow-up is scheduled for February 2006.
- Navy acquisition safety representatives are participating in the update of the primary Navy acquisition policy, SECNAVINST 5000.2C and associated DON Acquisition and Capabilities Guidebook.

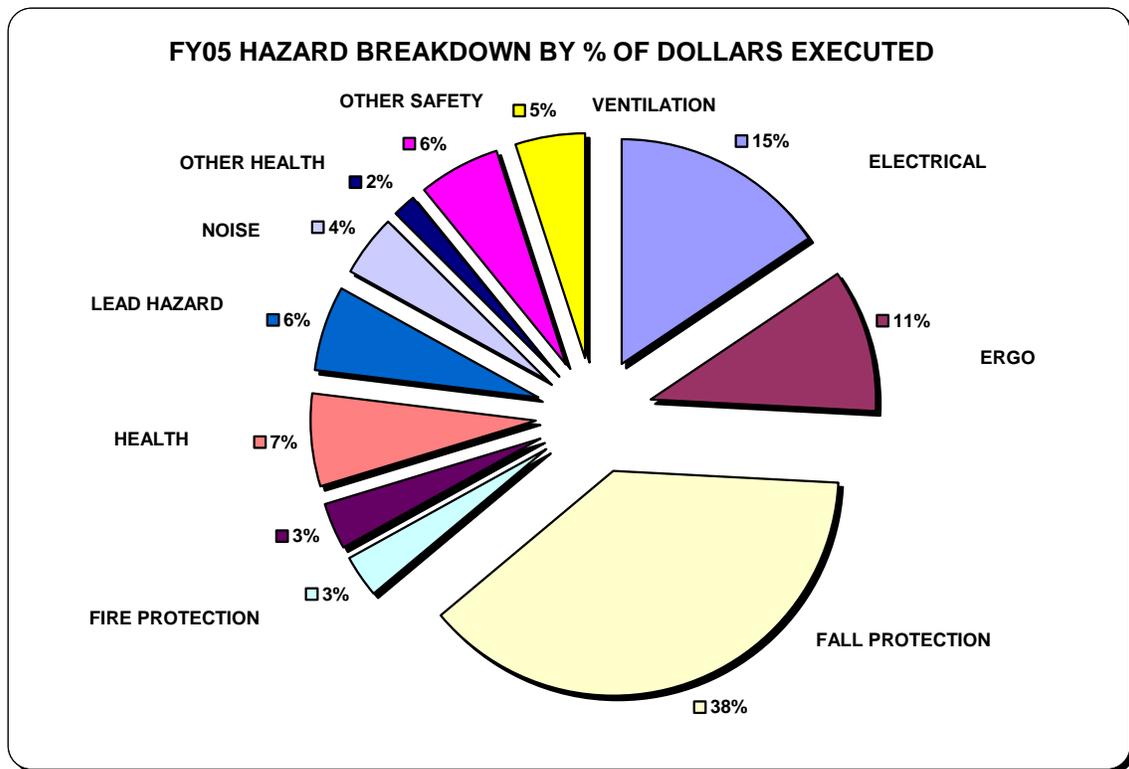
- ASN RDA guidance (Chief Naval Engineer) guidance supporting system safety implementation in all acquisition programs was published with extensive SECNAV I&E and CNO Safety Liaison input.
- The Navy System Safety Instruction (OPNAVINST 5100.24) is being updated by a Navy-Marine Corps working group. It addresses newer topics including integration of ergonomics/human systems integration into the systems development process, software safety and inclusion of requirements for safety capabilities in documents that define requirements for new and updated weapons systems.
- Navy safety professionals continue to participate in a number of acquisition program working groups and review panels. Program working groups include the new aircraft carrier (CVNX) and new destroyer (DDX). External program reviews include the LHA (R) amphibious ship and a number of weapons systems and mine-detection devices associated with the H-60 helicopter.

ATTACHMENT E - HAZARD ABATEMENT

The Navy’s Mishap Prevention and Hazard Abatement Program (HAP) is available to fund mishap prevention initiatives and abatement of hazards for which local activities do not have sufficient funds and to address hazards at multiple activities that can be corrected with common designs. The Navy OSH Program requires commands to identify workplace hazards during self-assessment, investigations, evaluations, oversight inspections, and through employee reports. The program also requires commands to evaluate and correct identified hazards. Navy commands were able to correct some identified workplace hazards in FY 2005 with funding secured through the Navy’s Hazard Abatement Fund, administered by the Naval Facilities Engineering Command (NAVFAC). Priority for funding was given to areas connected with the highest degree of risk such as falls and ergonomic injuries.

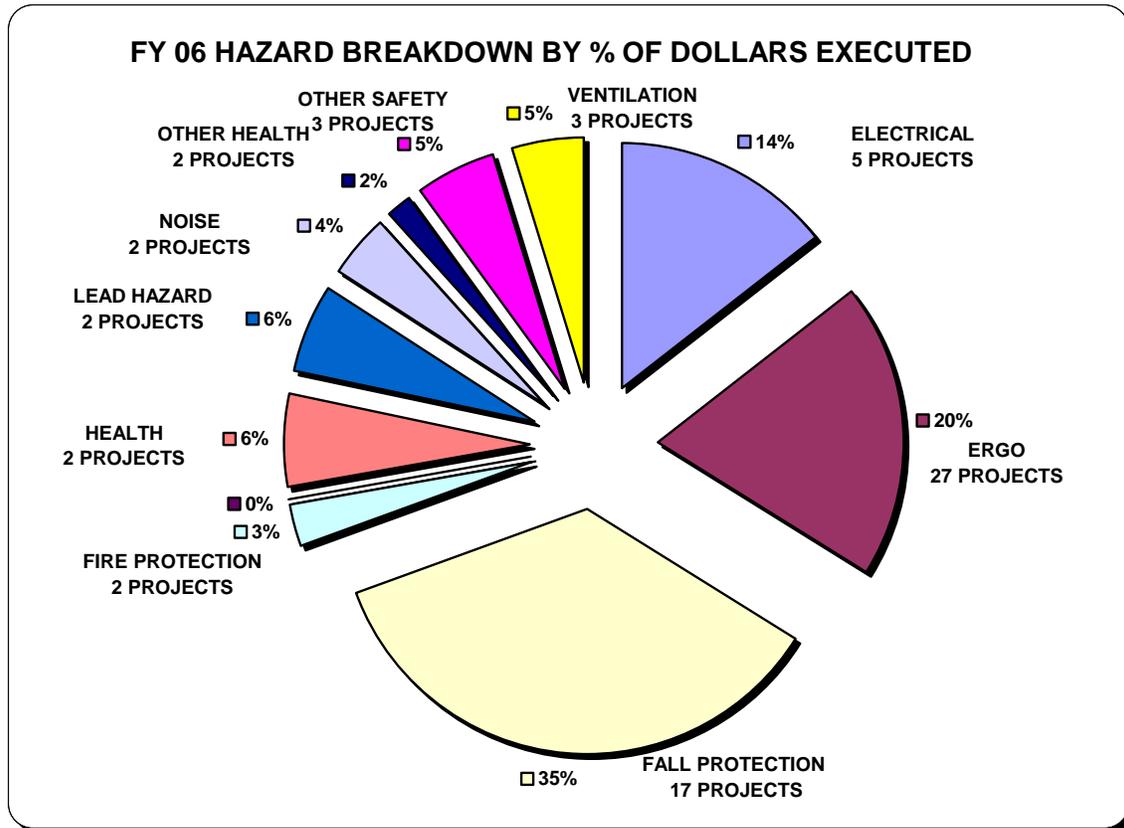
Approximately **\$10.8 million** were obligated and implemented into the system by the Naval Facilities Engineering Command to fund FY 2005 Hazard Abatement and Mishap Prevention Projects. Approximately **75** hazard abatement projects were approved and awarded during FY 2005. The majority of these Hazard Abatement projects fit into the categories of falls, ergonomics, industrial ventilation, fire/egress, electrical, and drowning. Examples of FY 2005 Hazard Abatement projects are listed on pages E-3 through E-5.

Pie Chart 1 illustrates the cost percentages for the breakdown of FY 2005 Hazard Abatement projects.



Pie Chart 1

The budget for the FY 2006 Hazard Abatement program is \$11.3 Million. Pie Chart 2 illustrates cost percentages of the 65 FY 2006 Hazard Abatement projects by hazard category for construction and design projects.



Pie Chart 2

In FY 2005, the Navy continued to make great progress in expanding the traditional scope of Hazard Abatement to address Mishap Prevention. In this way, exposures to occupational hazards can be prevented rather than treated as problems to be fixed after the fact. Examples of FY 2005 Mishap Prevention projects are:

- [Navy Fall Protection Program](#) - In FY 2005, the Navy Fall Protection Center of Expertise developed fall protection and prevention policy for Navy-wide use, provided technical expertise and training to Navy activities to eliminate or reduce fall hazards, participated as the Navy representative on the ANSI Z359 Fall Protection Standards Committee for drafting national fall protection standards, and drafted technical guidance documents for Fall Rescue Procedures and Fall Protection for aircraft maintenance.
- [Navy Ergonomics Program](#) - In FY 2005, the Navy Ergonomics Center of Expertise strengthened Navy policy to require all Navy personnel receive general ergonomics awareness training and OSH professional staff responsible for conducting ergonomics programs receive the Naval Occupational Safety and Health and Environmental Training Center 40-hour Ergonomics Program course or its equivalent. Ergonomic assessment tools were developed and made available on the Ergonomics website. The new assessment tools are the Computer Workstation Checklist, Physical Risk Factor Checklist, Laboratory Checklist and the Manual Materials Handling Checklist. The Ergonomics Center of Expertise provided technical expertise to Navy activities to eliminate or reduce ergonomic risk factors and Work-related Musculoskeletal Disorders (WMSDs).

Examples of Hazard Abatement Projects for FY 2005

Ergonomics

Workers at Dockside Mail and Official Mail Centers (multiple locations) were repeatedly exposed to heavy lifting, and excessive pushing and pulling when collecting, loading, unloading, and sorting mail. Packages weighing up to 70 pounds were being lifted daily at arms length, below the knees and above the shoulders. In addition, bulk mail carts weighting between 500 and 1200 pounds were pushed through the facility and up an incline from the dock area. Also, mail boxes/bins being filled/emptied were not properly sized to the employees, there was a lack of work space in some locations, and in others countertops were too high to work in comfortable positions. Employees had to stand for four to seven hours a day to accomplish the mail handling tasks. These ergonomics risk factors placed workers at risk of injuries to the back, leg, arms and neck.

Hazard Abatement and Mishap Prevention funds were allocated to provide equipment to reduce the stress and strain on the workers. Electric carts/tuggers were purchased to pull the bulk mail carts and tilting package carts reduce bending when sorting. Funded improvements also included a complete redesign of the mail service area which virtually eliminated package handling. Redesign of the postal collection station lowered the overall counter height, relocated equipment within easy reach, and provided adequate, comfortable seating. In addition, a dock leveling device reduces the need to push heavy mail bins up an incline.



Before: Workstation layout required employees to reach across customer counter and lift items onto the scales. Employees then lifted and carried items to the sorting carts. The height of the cash unit and scale was well above elbow height. Use of the keyboard caused compression on the forearms. Workstation layout positioned commonly used items distant from the main work center. Stools did not provide adequate support nor was there room for the legs while seated.



After: New workstation layout enables the customer to place the item on the scale. The employee faces the customer during the transaction while utilizing a monitor that is recessed into the counter top. The employee simply slides the item from the scale, across the conveyor type top, and onto tables. The adjustable keyboards can be positioned to best suit the stature of the employee. The new design resulted in more workstation space and organization. In addition, the worker no longer lifts and carries items.



Before: Loading dock was not matched to the configuration of the delivery trucks. Employees were required to lift and position portable ramps from the loading dock into the delivery trucks. Heavy (700 – 1500 lb) carts were pushed across the ramps. Some of deliveries required workers to push the heavy carts up an 8” incline.



After: Loading dock (left) automatically lowers ramp into place eliminating the need to manually move dock boards. Heavy mail carts (right) are now lifted to and from delivery truck height eliminating the force required to move the carts up and down ramps.

Estimated Payback/Cost Avoidance: The likelihood for injury was high in this area due to the frequency and duration of the exposure. According to Bureau of Labor Statistics data from 2002, the average cost of a cumulative trauma injury is \$13,811. Assuming the solution prevented three workplace injuries, a potential savings of $\$13,811 \times 3 = \$41,433$.

Emergency Egress

Before this task was accomplished, personnel working in the seven story air traffic control tower at Naval Air Station, Meridian, MS had no safe way to evacuate the operational spaces in the event of a fire or other emergency in the elevator equipment room directly below. The emergency ladder was prefabricated in manageable sections, then sequentially lifted into position and connected to specially designed supports which had been welded to the tower’s internal structure.



Before: no safe evacuation mechanism.



After: Emergency ladder installed.

Fall Protection

Traditional fall protection for fixed wing aircraft maintenance at Naval Air Station (NAS) Key West, FL is not readily adaptable nor practical for helicopters due to their physical configuration. A solution that was simple and could be quickly put in place was needed as many repairs and maintenance actions must take place in real time. Subsequently, commercial off-the-shelf stands were procured from the GSA schedule that are modified as needed by the supplier for specific H-60 models. Included in the tasking was on-site set-up by the supplier's technicians and personnel training. Because of the success of this initial implementation, similar stands were subsequently delivered to NAS Jacksonville, FL and are scheduled for delivery to NAS North Island, CA and NAS Guam.



Before: No fall protection system for fixed wing aircraft maintenance.



After: Modified stands with side rails protect workers from risk of falls.



ATTACHMENT F
SHORE SAFETY COMMITTEE (SSC) &
AFLOAT SAFETY COMMITTEE (ASC)
ACCOMPLISHMENTS FOR FY 2005

Shore Safety Committee

- Instrumental in obtaining Commander Navy Installations (CNI) centrally-managed Traffic Safety (TS) and Recreation Off-Duty Safety (RODS) contract
- Drafted Navy's TS/RODS Instruction updates
- Conducted two national safety days with senior leadership
- Released "Safety Tone" messages to senior leaders throughout Commander Navy Installations and Pacific Fleet
- Established linkage for mishaps reporting from the Enterprise and Safety Application Management System (ESAMS) to Naval Safety Center Web Enabled Safety System (WESS)
- Applied industrial ergonomic best practices at remaining two depots within NAVAIR after realizing a 39% Lost Work Day rate decrease at Naval Aviation Depot Jacksonville
- Drafted guidance documents for Slips, Trips, and Falls
- Drafted fall protection guidance document for aircraft maintenance
- Finalized and posted manual for material handling and laboratory ergonomics checklist

Afloat Safety Committee

- Conducted test safety workshops aboard a number of Navy ships to finalize workshop curricula, receive feedback and conduct follow-up
- Continued to develop and support Operational Risk Management (ORM) Program and conducted assessment of risk management practices
- Developed a Force Commander brief to reemphasize risk management principles
- Directed force-wide baseline ORM program evaluation
- Directed command off-duty Risk Assessment Programs
- Developed a Safety Culture Assessment Survey
- Enhanced Fleet/Type Commander/Naval Safety Center training coordination

See additional Shore Safety Committee accomplishments:

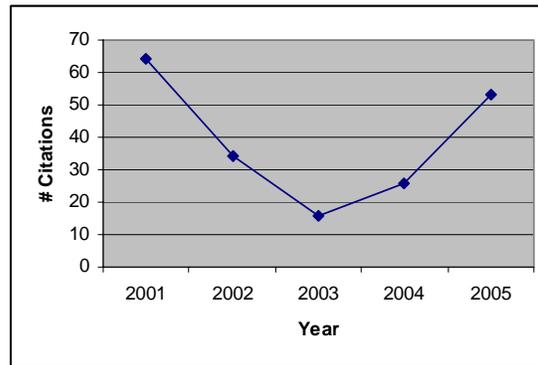
<http://safetycenter.navy.mil/presentations/conferences/nmcsc/nov05/sourcefile/Shore.ppt>

ATTACHMENT G – OSHA CITATIONS

EXAMPLE OF CITATION POSTING

Installation	UIC	Open Conf. Inspection Date	Inspection Type	Violation Type	Standard Cited	Description	NAVOSH Reference	Abatement Date
Naval Fleet Industrial Supply Center Bldg. 50 San Diego, CA 92106	00245	10/4/2004	Planned	Other	1910.178.(l)(4)(iii)	Powered Industrial Trucks. An evaluation of each powered industrial truck operator's performance shall be conducted at least once every three years.	OPNAV-INST 5100.23F Chapter 11, Inspections and Investigations of Workplaces by Federal and State OSH Officials; Chapter 5, Prevention and Control of Workplace Hazards.	12/1/2004

A review of the graphs displaying the number of citations showed a low point in 2003 with an increase in citations for 2004 and 2005.



Of the 34 OSHA inspections in FY 2005, 18 Navy locations received OSHA citations. Nearly 50% of the installations inspected had no citations. One installation among the 18 in the total number of installations inspected with citations is an “open” case. There were 53 total citations for FY 2005. Thirty seven citations were serious (70%) and 16 were “other than serious.” Four locations had nearly 50% of the citations. The highest numbers of citations were issued for powered industrial trucks, electrical issues and machine guarding. These three areas accounted for 55% of all the citations. The locations with the highest number of citations for FY 2005 were the following:

Greatest Number of Citations by Location

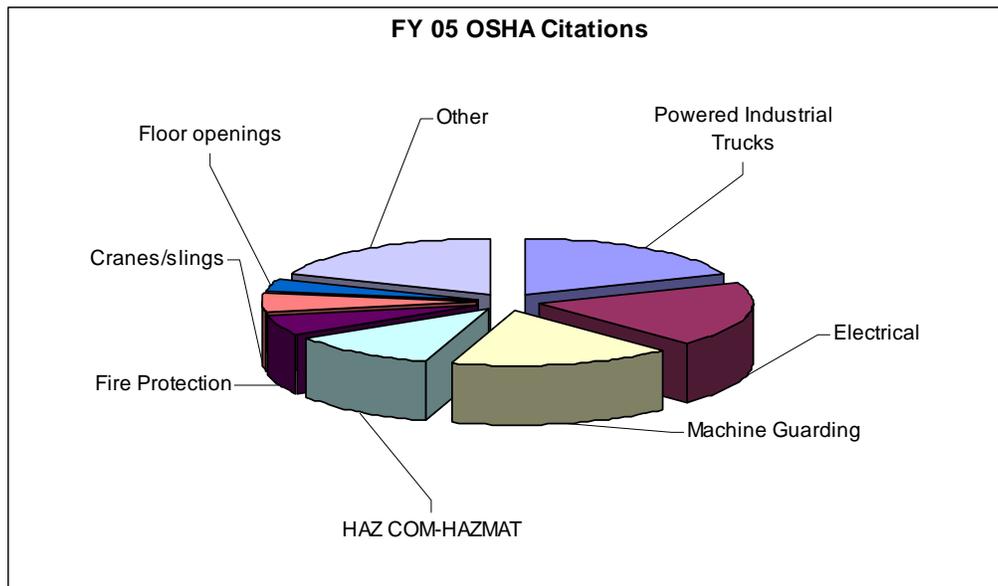
Installation	Total # Citations	
Navy Distribution Exchange Center (NEXCOM), Bldg CD-1, Hampton Blvd, Norfolk VA 23511	7	
	Serious: 7	Other than Serious: 0
Naval Air Facility, El Centro, CA 92243	6	
	Serious: 1	Other than Serious: 5
U.S. Navy Echo Pier, Massey Ave., Mayport, FL 32228	5	
	Serious: 5	Other than Serious: 0
Navy Exchange (NEX), Naval Air Station, North Island, San Diego, CA 92135	5	
	Serious: 5	Other than Serious: 0
Naval Facilities Engineering Command, Great Lakes Naval Base, N. Chicago, IL 60088	4	
	Serious: 4	Other than Serious: 0
Navy Public Works Center Bldg. A44, San Diego, CA 92152	4	
	Serious: 2	Other than Serious: 2
Fleet Industrial Supply Center (FISC) Pearl Harbor, HI 96860	4	
	Serious: 3	Other than Serious: 1

Note: Does not include citations from all other locations

OSHA Citations By Major Category for FY 05:

Powered Industrial Trucks	10	Fire Protection	3
Electrical	10	Cranes/slings	3
Machine Guarding	9	Floor openings	2
HAZCOM//HAZMAT	6	Other	10

The pie chart below depicts percentage of FY 2005 citations by hazard category.



ATTACHMENT H – SAFETY SUCCESS STORIES

The *Safety Success Stories* web pages were developed and posted on the public domain portion of the Naval Safety Center website, <http://www.safetycenter.navy.mil/success/default.htm> to communicate the Navy’s commitment to the safety and quality-of-life of our personnel. The purpose of the Success Stories is to inform Sailors, their families, Navy civilians, and the general public about what the Navy is doing to protect the military and civilian work force from workplace fatalities, life-threatening injuries and illnesses, and crippling disabilities. By providing real examples at Navy field activities, the stories widely disseminate valuable lessons-learned, innovative technologies, and successful programs and initiatives.

The examples of OSH successes reported in the Safety Success Stories also demonstrate the value added by safety and best business practices, and how such initiatives result in productivity gains and cost savings. An additional feature of the Success Stories web pages is the [Safety Stories Cost/Time Savings Chart](#) (see sample from chart on page I-3 below), which highlights in table form the challenges, improvements, and cost, time and labor savings of selected stories. The *Safety Stories Cost/Time Savings Chart* helps the Navy to build the “business case for safety.” A conservative estimate is that for every dollar invested in safety, the return is between three and ten dollars.

In FY 2005, four new stories were posted to the *Safety Success Stories* web pages. The stories focused on OSH areas of concern, such as ergonomics, prevention of carbon monoxide poisoning, and respiratory protection. Summaries of two stories are provided as examples:

Southwest Regional Maintenance Center (SWRMC) Eliminates Ergonomic Risks in Sail Shop - The Southwest Regional Maintenance Center (SWRMC) Sail Shop employs seven full time active duty technicians to create patterns and cut, join, and repair fabric pieces for various Navy vessels. The Sail Shop has three types of workstations - sewing, webbing, and storage. At the sewing stations, workers sew fabric while seated at sewing machines for up to three hours a day. At the webbing stations, Sailors stand at work tables to lay out webbing patterns and inter-weave one layer of webbing material over another. Sailors also manage heavy rolls of fabric, storing and removing them, as needed, from a rack for use in the Sail Shop. Sail Shop operations involving awkward postures, reaching, heavy lifting, forceful exertions, and prolonged standing on hard surfaces increased the risk of work-related musculoskeletal disorders, or WMSDs. WMSDs are injuries and illnesses that affect muscles, nerves, tendons, ligaments, joints, spinal discs, skin, and bones.

The Sail Shop staff, a Certified Professional Ergonomist (CPE), safety office staff and industrial hygienist looked for ergonomic solutions to minimize risk of WMSDs in the Sail Shop. *Ergonomics* is the science of fitting the work to the worker, instead of requiring the worker to adapt to existing working conditions. The team analyzed the data and results of a *Job Requirements and Physical Demand Survey* administered to the Sail Shop staff and brainstormed ideas to reduce the ergonomic risk exposure level.



Webbing is attached to adjustable frames, reducing need for awkward postures.

Navy Hazard Abatement and Mishap Prevention Program funding provided adjustable seats for the Sail Shop sewing workstations. Improved sewing workstations were designed by the CPE. They were enlarged to accommodate the new adjustable chairs and to include task lighting. The enlarged space also means that Sailors no longer need to twist their bodies to reach their work when sewing. An improvement at webbing workstations is a frame to which the webbing can be attached. The frame is placed in a low position at the start of a webbing task

and can be raised as the work task progresses. The frame also rotates to move the work piece as rows of webbing are added. A vertical storage device for bolts of fabric was installed in the Sail Shop. The heavy bolts are now delivered at waist height, eliminating the need for overhead lifts and deep knee bends to store or retrieve fabric bolts. Anti-fatigue matting was installed in front of webbing stations and special, anti-fatigue sole inserts were provided for the shoes of technicians who stand for long periods.

Since the ergonomic improvements were made in the SWRMC Sail Shop, there have been no complaints by Sailors of pain or numbness in the legs or upper extremities. Sail Shop technicians have expressed satisfaction with the ergonomic improvements in their workstations. The workstation and storage improvements have also resulted in fabrication, storage, and retrieval task time savings. The yearly potential injury aversion and productivity cost savings are estimated to be \$306,500.00.

Navy Manages Risk of Carbon Monoxide Poisoning in Base Housing - Carbon monoxide is a potentially deadly gas that is generated when fuel is incompletely burned. According to the Journal of the American Medical Association, carbon monoxide is the leading cause of accidental poisoning deaths in the United States. Over 2,500 people die each year, and more than 10,000 more are hospitalized from carbon monoxide inhalation. Carbon monoxide (CO) is an odorless, colorless gas that can permanently injure or kill without warning. A CO detector can provide early warning of the presence of this deadly gas.

In 1998, several families in a Navy base housing area were overcome by CO generated from defective heating units. The Chief of Naval Operations and the Naval Facilities Engineering Command took aggressive action to ensure that heaters in base housing units and other high-risk areas were inspected and that defective units were repaired or replaced. The Navy - the first of the military services to install CO detectors in all housing and high-risk areas such as childcare centers - then purchased and installed 60,000 CO detectors. The detectors were installed to provide early warning of the presence of CO gas. Since that time, no carbon monoxide-related deaths have been reported in Navy housing or childcare facilities.



Carbon monoxide detectors are installed and maintained in all Navy housing.

installing carbon monoxide detectors in all Navy housing units and other high risk areas, routinely inspecting the detectors, and performing periodic maintenance on heating systems to prevent CO from leaking into living quarters has saved lives and continues to be a successful method of preventing carbon monoxide poisoning.

The *Safety Success Stories* web pages fulfilled our FY 2004 goals to advertise our successes and to further the occupational safety and health initiative by sharing the ideas, skills, technology, and programs that continually improve the work environment of Navy personnel. The additional focus on improving productivity and providing cost savings was also clearly demonstrated, as shown in the representative sample in the table below. Following the table are executive summaries of the 11 Safety Success Stories posted in FY 2005.

***SAFETY SUCCESS STORIES
COST/TIME SAVINGS FY 2005***

ACTIVITY	CHALLENGE	IMPROVEMENT	COST SAVINGS	TIME/LABOR SAVINGS
SWRMC San Diego, CA	Awkward postures, lifting overhead, prolonged standing in Sail Shop 	Larger work stations, ergonomic seating, automated storage rack, adjustable frame for sail webbing tasks	Reduced risk of WMSDs of the neck, back, arms, and shoulders with resulting workers' compensation costs.	Fabrication, storage, and retrieval task time savings. Yearly potential injury aversion and productivity cost savings are estimated to be \$306,500.00

EXECUTIVE SUMMARY FOR FY 2005 SAFETY SUCCESS STORIES

[Note: If reading an electronic file of this report, click on title to view the entire story]

[Southwest Regional Maintenance Center Eliminates Ergonomic Risks in Sail Shop](#) - Results of an overall assessment indicated the presence of ergonomic risk factors for Sailors working at sewing and webbing stations and in the storage area of the Southwest Regional Maintenance Center Sail Shop. Newly designed, larger work stations, the purchase of ergonomic chairs, and the addition of an innovative adjustable work frame have eliminated pain and fatigue associated with Sail Shop tasks as well as saving time and reducing costs.

[Navy Manages Risk of Carbon Monoxide Poisoning In Base Housing](#) - Carbon monoxide is a deadly gas that is generated when fuel is incompletely burned. The Navy is the first of the military services to install CO detectors in all Navy housing and other high-risk areas to provide early warning of the presence of CO gas. This story provides valuable information on the properties of CO, its harmful effects, and safety measures to detect its presence and avoid mishaps.

[PWC San Diego's Terminator Prevents Work-Related Injuries](#) - Maintenance workers who manually removed old carpet and tile experienced back, knee, shoulder, and wrist pain. An ergonomic, cost, and time saving solution was found when the command purchased a machine called the Terminator.

[Navy Environmental Health Center Protects Navy and Marine Corps Workers From Inhalation Hazards](#) - For decades the Navy Environmental Health Center (NEHC) has answered respiratory protection inquiries from Navy activities, advised top Navy management on developments in the field of respiratory protection and has recommended new operational procedures for improving and updating Navy respirator program policy. NEHC's IH Directorate, Respiratory Protection Program offers services that ensure DON personnel can work, fight fires, and respond to other emergency situations involving inhalation hazards and entry into oxygen deficient environments.