

**CHIEF OF NAVAL OPERATIONS
SAFETY AND OCCUPATIONAL HEALTH BRANCH
(N454)**

REPORT

ON THE

**U.S. NAVY
OCCUPATIONAL SAFETY
AND
HEALTH PROGRAM**

COVERING

FISCAL YEAR 1995

(REVISION OF MARCH 1996)

WASHINGTON, D.C. 20350-2000

U.S. NAVY OCCUPATIONAL SAFETY AND HEALTH PROGRAM REPORT FOR FISCAL YEAR 1995

I. REPORT COVERAGE. The statistical aspect of this report covers only the shore installations of the U.S. Navy and its civilian employees. However, significant afloat initiatives are highlighted throughout the report and in Section IV. The average number of United States citizens employed by the U.S. Navy during fiscal year 1995 was 228,726. The U. S. Navy also employed approximately 2200 part-time and 10,000 temporary employees. These employees worked at approximately 900 "activities" or installations. The U.S. Navy has activities and offices located throughout the world employing U.S. civilians. All types and forms of operations, processes, work environments and occupations exist within the Navy. We are a major national industrial employer with over 35,500 civilian employees at naval shipyards, 14,500 at aviation repair activities, and 13,000 at public works/ construction activities. Our blue collar/wage grade workforce is approximately 60,000.

II. PROGRAM PERFORMANCE.

1. INJURY AND ILLNESS CASE EXPERIENCE.

a. FEDERAL EMPLOYEES INJURY COMPENSATION INJURY/ILLNESS STATISTICS. Table 1 below provides a summary of our injury compensation claims experience between fiscal year (FY) 1991 and FY 1995. The case data in the Table was obtained from Office of Workers' Compensation Programs (OWCP) Federal Employees Compensation Act (FECA) Reports. Our total claims experience declined 25 per cent from the level in FY 1991 and our total case rate declined 8.2 percent. We also reduced the number of lost time cases by 30 percent between FY 1991 and FY 1995, and our lost time case frequency rate by 11 percent. Chart 1 on the next page graphically

Table 1: OWCP INJURY AND ILLNESS CASES

Category	FY 91	FY 92	FY 93	FY 94	FY 95
Total Injury/Illness Cases*	18375	17663	16980	15948	13788
Fatalities**	5	4	1	4	3
Lost Time Cases	10778	9950	9741	8955	7526
Number of Employees***	290622	282751	266512	247707	228726

OWCP RATES OF INJURIES AND ILLNESSES PER 100 EMPLOYEES

Category	FY 91	FY 92	FY 93	FY 94	FY 95
OWCP Total Case Rate	6.08	6.00	6.13	6.19	5.79
OWCP Lost Time Case Rate	3.56	3.38	3.51	3.47	3.16

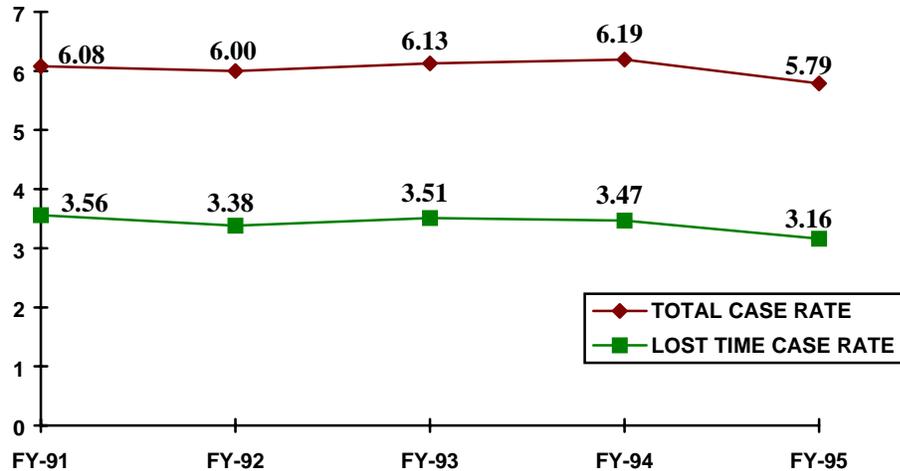
Source of Data: * OWCP FECA TABLE #2 DATA (Cases filed during FY)

** NAVAL SAFETY CENTER OCCUPATIONAL INJURY DATA BASE

*** NAVY CIVILIAN PERSONNEL DATA SYSTEM (NCPDS)

shows our injury/illness claims performance in terms of total case rates and lost time case rates for the last five years. Chart 2 shows actual total case experience for each quarter of the fiscal year between FY 1991 and FY 1995. FY 1995 is our best year on record in terms of reducing total case numbers and frequency rates.

OWCP INJURY AND ILLNESS CASES

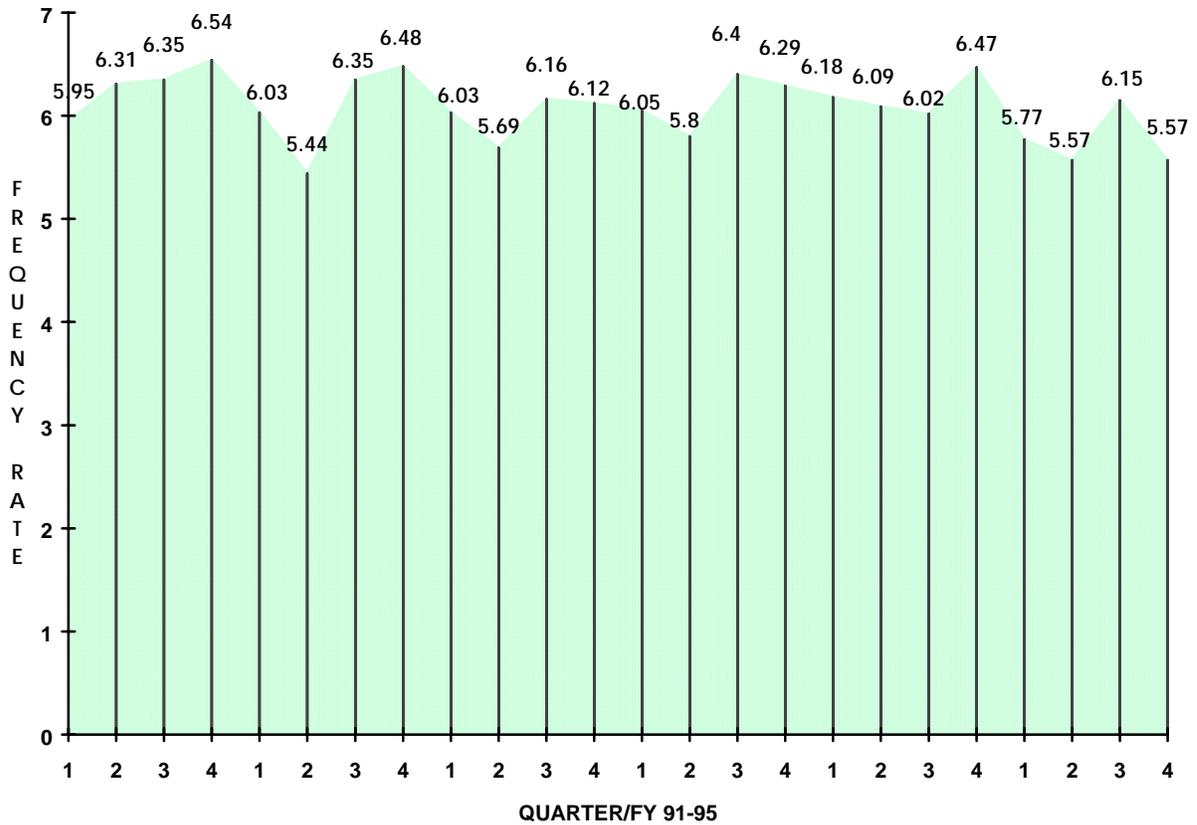


Total Case Rate declined 8.2 % between FY-91 and FY-95;
the Lost Time Case Rate declined 11%.

CHART 1

(1) **INJURY COMPENSATION COSTS.** As shown graphically in Chart 3, in compensation billing year (CBY) 1995, we saw a decline in FECA costs. This is the first time we have seen a decline in these costs. This decline of approximately \$5.5 million occurred despite continuing significant increases in medical costs. We attribute this achievement to our aggressive efforts to reduce injury and illness cases which began in the early 1980's. As shown in past reports, our efforts resulted in substantially reducing the number of new cases filed each year between the middle 1980's and the early 1990's. As you can see in the Chart 3, our overall medical claims numbers have also steadily declined, reducing approximately 14.3 per cent since CBY 1991. Analysis of our medical case billing in CBY 1995 reveals that approximately 70% of the charges were for cases prior to 1990 with only 1% of the charges for 1995 cases. In terms of case numbers, 41% of the cases filed were for injuries prior to 1990, 52% before 1993. Only 8% of the cases actually occurred in 1995. This data supports our claim that by reducing the number of injury and illness cases, costs will ultimately also be reduced. The savings from our mishap reduction efforts in the 1980's and early 1990's are finally revealed in the billings of 1995. We wish to emphasize that this is considered an *important achievement* and an indication of the success of safety and occupational health programs. Despite medical cost increases, and a cost per case increase of 23%, our overall costs went down.

NAVY CIVILIAN INJURY CASE RATES

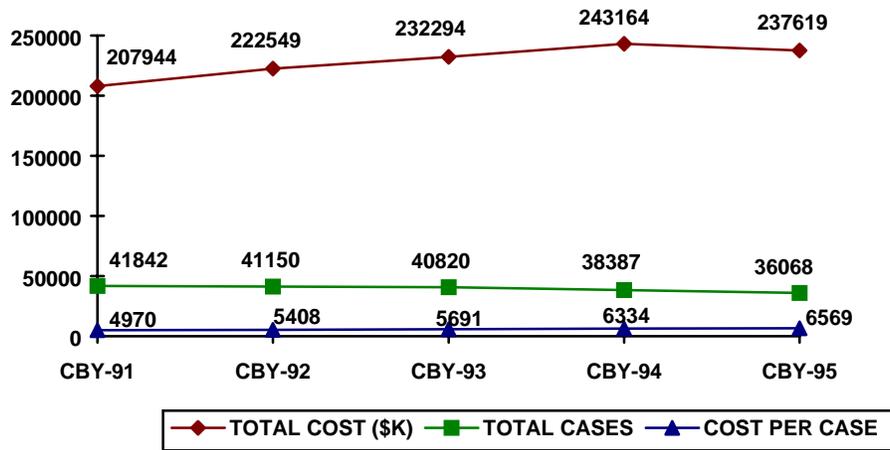


Source: OWCP FECA Table #2 Data

NOTE: The rates shown on this chart reflect the *actual* case experience during the quarter and are based on the average civilian employment level during the quarter. The fiscal year data in Table 1 reflects an average of case and employment experience during the four quarters of the fiscal year.

CHART 2

FECA CHARGEBACK DATA BY BILLING YEAR



Source: OWCP Chargeback Tapes

CHART 3

(2) **CONTINUATION OF PAY.** As revealed in Table 2 below, our continuation of pay costs have also continued to decline substantially. This appears to be attributable to a very significant decline in the number of days employees are on COP. Between FY 1991 and FY 1995, the average days per case, as reported to the Defense Finance and Accounting Center, declined from 10.46 to 1.65 days. Again, we believe our aggressive and proactive actions in case management and return to work programs can be attributed as the main source for this achievement. We are unclear about the reasons for the increases in the number of cases since FY 1993, however, as indicated in our discussion above, in recent years we have been concerned about a resurgence of mishaps associated with downsizing, reinvention, restructuring and the resulting social impact.

TABLE 2: CONTINUATION OF PAY (COP)

Category	FY 91	FY 92	FY 93	FY 94	FY 95
a. COP Cases	9822	8583	8423	13566	20384
b. COP Cost (\$)	8426645	7658968	6668430	5336816	4064455
c. COP Days Off (work days)	102789	90233	66895	51558	33673
d. Avg. COP Days Off	10.46	10.51	7.94	3.78	1.65

Source of Data: DEFENSE FINANCE AND ACCOUNTING CENTER DATA

b. **MISHAP STATISTICS.** The following information concerns lost workday mishaps and occupational fatalities. This information is based on reports submitted by activities to the Naval Safety Center, and varies significantly from FECA reports since it is based only on valid occupational injuries/illnesses that occurred during the fiscal year and resulted in five or more lost workdays (rather than all FECA cases filed during the year). For reporting and analysis purposes, we use the term lost workday case vice lost time case. A lost workday case is a case where more than 8 hours of work time is lost after the day of injury. We require mishap reports to be submitted to the Naval Safety Center for all cases involving five or more lost workdays. Our fatality database also contains only valid occupational U.S. Naval civilian fatalities that actually occurred during the fiscal year. The information that follows also comes from our Naval Safety Center mishap database.

(1) **OCUPATIONAL ON-DUTY FATALITIES.** The U.S. Navy experienced three on-duty occupational fatalities in FY 1995 among its U.S. civilian workforce. One occupational fatality occurred when an employee fell in a shipboard weapons elevator. The employee was performing a maintenance check when he stumbled and fell off the elevator platform about 80 feet to the bottom of the elevator shaft. The second fatality involved an electrician who was electrocuted while repairing a high voltage line. The third fatality involved a firefighter who collapsed while performing physical training. Charts 4 and 5 below reveal our occupational on-duty fatality experience for the last five years.

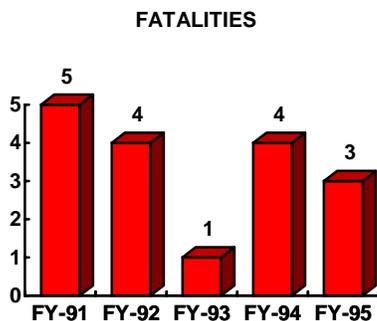


CHART 4

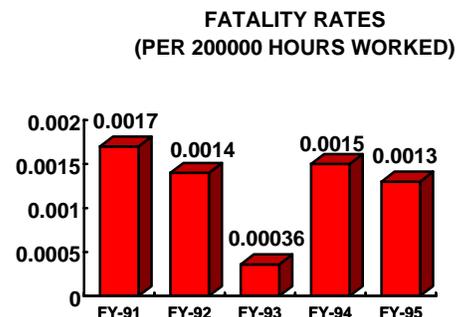
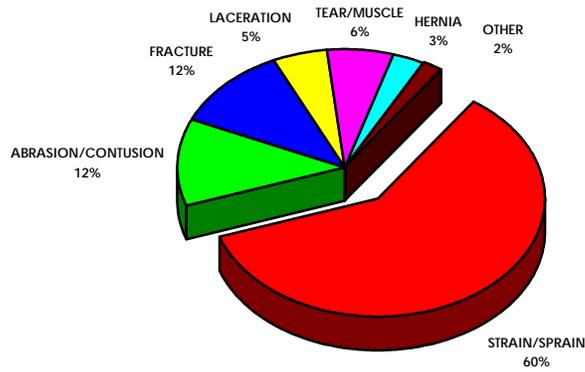


CHART 5

(2) **LOST WORK DAY CASES.** Charts 6 through 9 provide information based on the analysis of data of our serious lost workday mishaps (those involving five or more lost work days). There are no significant trends or changes from past years. The majority of lost work day mishaps continue to result in strains and sprains (60.1 percent), overexertion continues to be the most frequent source of injury (34.9 percent), and backs continue to be the most frequent body part injured (35.8 percent). The most frequent type of activity at time of injury was walking or stepping, accounting for approximately 26% of the lost workday cases. 33.8 percent of the lost workday cases involved handling materials.

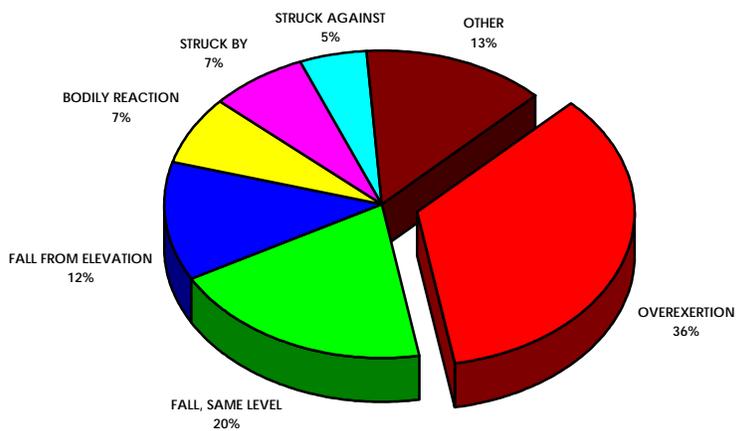
**TYPE OF INJURY
FY-95 LOST WORKDAY CASES**



Source: NAVSAFECEN

CHART 6

**SOURCE OF MISHAP
FY-95 LOST WORKDAY CASES**



Source: NAVSAFECEN

CHART 7

**BODY PART INJURED
FY-95 LOST WORKDAY CASES**

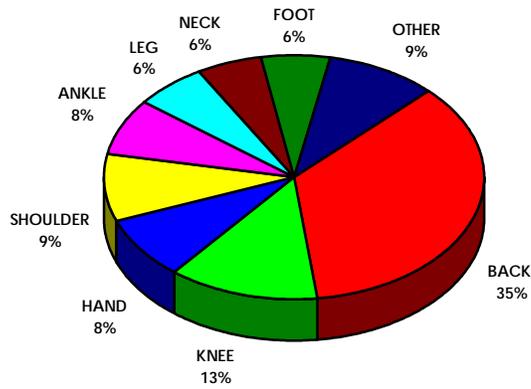


CHART 8

**ACTIVITY AT TIME OF INJURY/ILLNESS
FY-95 LOST WORKDAY CASES (%)**

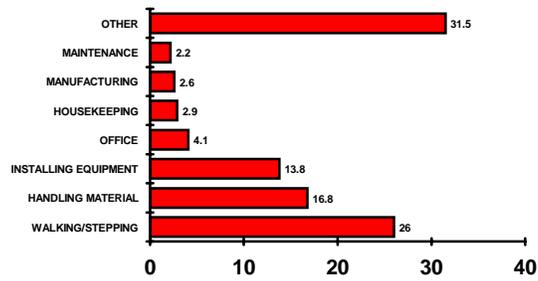


CHART 9

**TYPE OF MISHAP
FY-95 LOST WORKDAY CASES**

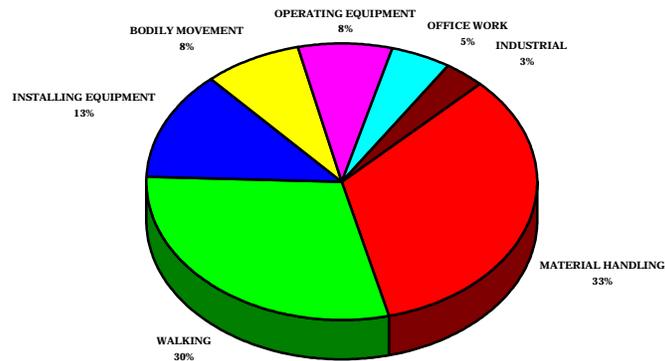


CHART 10

Source: NAVSAFECEN

III. PROGRAM EVALUATION

1. THE NAVY INSPECTION PROGRAM. Our three tiered inspection process has been designed not only to ensure compliance with Federal and Navy standards and policies, but also to assess the overall effectiveness of programs and implementation.

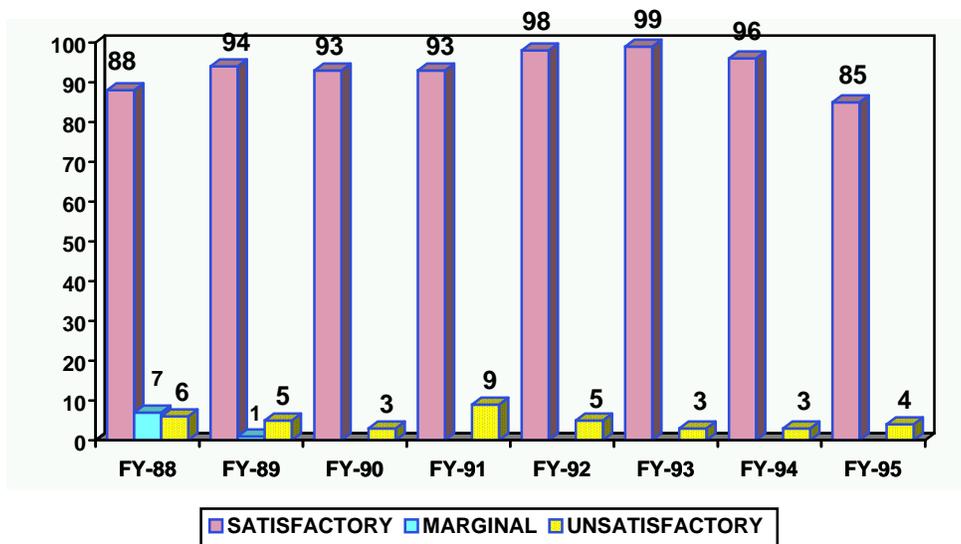
- At the first tier, activities are required to maintain local inspection programs that include the inspection of all workplaces at least annually by qualified professionals; the risk assessment of all workplaces to determine if greater frequency of inspection is required; job hazard analyses for hazardous operations; and as warranted by the level of risk, more frequent inspection based on documented schedules. All hazards identified during inspections must be properly recorded and reported, and entered into abatement programs for correction. Activities must also conduct internal reviews of program effectiveness.

- The second tier is at the command level where commands are required to conduct periodic (at least once every three years) OSH program management evaluations of their subordinate activities. These evaluations are structured to review program management and its effectiveness.

- The third tier and our primary monitoring device to measure program effectiveness is the NAVOSH Oversight Inspection Program. This program continues to be the core of our compliance efforts and is managed under the auspices of our Inspector General. Since its inception, over 1500 oversight inspections have been conducted. Table 3 below provides summary information on performance in this program since FY 1983. Chart 11 graphically shows the number of inspections by performance category between FY 1988 and FY 1995.

TABLE 3: NAVINGEN OSH OVERSIGHT INSPECTIONS			
	<u>Satisfactory</u>	<u>Marginal</u>	<u>Unsatisfactory</u>
FY83	56 (64.3%)	13	18
FY84	70 (76.9%)	10	11
FY85	80 (80.8%)	9	10
FY86	82 (81.2%)	15	4
FY87	87 (82.9%)	13	5
FY88	88 (87.2%)	7	6
FY89	94 (94%)	1	5
FY90	93 (96.9%)		3
FY91	93 (91.2%)		9
FY92	98 (95.1%)		5
FY93	99 (97%)		3
FY94	96 (97%)		3
FY95	85 (95.5%)		4

SUMMARY NAVOSH OVERSIGHT INSPECTION RESULTS



Note: Marginal ratings were stopped after FY 1989.

CHART 11

a. During FY 1995, 89 oversight inspections were conducted at our shore activities. These inspections were "unannounced" (less than 30 days notice) and conducted by teams of professional safety and industrial hygiene personnel. We have issued detailed evaluation guides for inspections that outline each program requirement. On each oversight inspection, 25 major program elements are reviewed for compliance. In addition, oversight walkthrough reviews of worksites are made to evaluate program implementation and compliance with standards at the work unit level. Sixteen supplemental program elements are also reviewed where applicable.

b. Since FY 1989, we have used a quantitative scoring system to rate the compliance status of the NAVOSH program at each activity inspected. Program elements and workplace compliance are weighed equally in scoring, and an overall score of 75 or higher is required for a satisfactory rating. We have now completed six years of inspections under the quantified scoring system and feel we have good baseline data to measure future inspection trends. As shown on Chart 12

below, the mean score for FY 1995 is

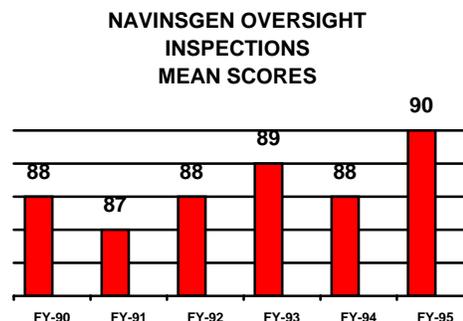


CHART 12

90 percent which is the highest mean score since 1989. Our satisfactory rating level for FY 1995 was 95.5 percent.

c. We feel our oversight inspection program is without peer and serves as a driving force in our efforts to provide safe and healthful workplaces for all Navy personnel. We continually try to improve and enhance this program. Formal reports are issued by the Inspector General for each inspection, and submitted to the Secretary of the Navy and Chief of Naval Operations. Attention and concern are high at all levels of command for this program.

d. As you can see in Charts 11 and 12, compliance and performance have remained relatively consistent since FY 1990. A review of the findings of these inspections reveals the most frequently observed program deficiencies were training, hazardous material control and management, command support, hazard abatement, mishap investigation and inspections. Workplace deficiencies cited during inspections during FY 1995 were in rank order were electrical safety, hazardous material control and management, machine guarding, hearing conservation, and respiratory protection. These findings are consistent with the findings of OSHA during private sector inspections. Table 4 below provides information on administrative program deficiencies cited during inspections.

TABLE 4					
MOST FREQUENT PROGRAM DEFICIENCIES*					
FY-91 THROUGH FY-95					
<u>Deficiency</u>	<u>FY91</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>
OSH TRAINING	60%	65%	59%	63%	56%
HMC&M	43%	55%	48%	59%	51%
COMMAND SUPPORT**			41%	46%	40%
ABATEMENT	47%	46%	46%	44%	39%
INSPECTIONS	33%	38%	27%	24%	37%
MISHAP INVESTIGATION	52%	53%	23%	39%	37%

NOTES: * Percent of inspections with a finding in the listed program element.
 ** Command support was not reviewed as specific program element until FY 1993.

e. Chart 13 on the next page, shows the trends over the past few years in program deficiencies. There do not appear to be significant trends, although compliance with abatement and mishap investigation program requirements have improved.

f. Areas of increasing concern, at least partly due to downsizing/restructuring and related actions, are OSH professionalism and organizational placement. We have strongly stressed the need for program professionalism for many years, as well as enforcing and stressing the need to have the OSH function as a distinct office reporting directly to command. An increasing number of citations are being noted in these two areas, and we will monitor these areas closely in FY 1996.

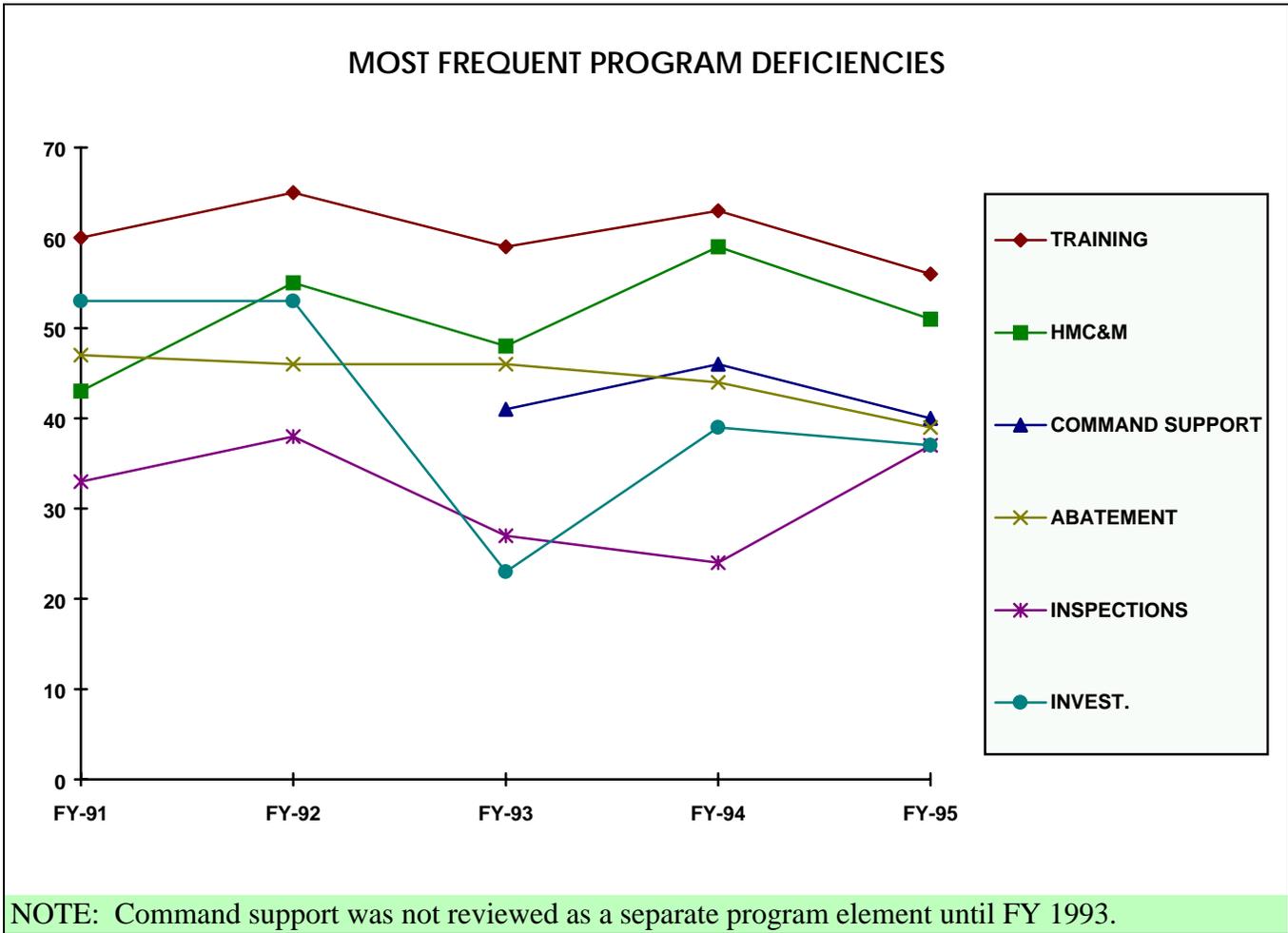


CHART 13

g. Our inspection special emphasis areas for FY 1996 are hazardous material control and management, confined space entry, occupational health/industrial hygiene support, and base closure safety.

IV. SIGNIFICANT OSH ACCOMPLISHMENTS AND INITIATIVES.

Our programs and initiatives have been directed to reducing our occupational injury and illness claims, our overall mishap experience, and improving the working environment for our employees. Our interest is in both controlling costs and improving employee well-being. We have used detailed analyses of our mishap, claims and inspection experience to target program initiatives. The following discussion outlines major programs and initiatives last year.

1. THE NAVOSH STRATEGIC PLAN. Since 1993 we have undertaken a major initiative to develop and implement a strategic plan for the NAVOSH program. As part of the strategic planning process, the NAVOSH Quality Council was established with membership representing safety and occupational health professionals throughout the U.S. Navy. The Council developed the NAVOSH Strategic Plan (December 1993/revised October 1994) that contains our mission, long term vision, guiding principles and strategies for NAVOSH, and has been overseeing the plan's implementation.

a. The plan encompasses four major strategies on communications and information systems, process review and measurement, planning and engineering, and training and education. For each strategy, specific goals and objectives have been developed and a timetable for goal accomplishment is established.

b. For each strategy, a quality management board (QMB) has been established with supporting process action teams, where appropriate, to facilitate development and implementation of the strategies and goals.

c. The NAVOSH Strategic Plan provides our program goals and objectives for the next five years. During FY 1995, the QMB's and NAVOSH Quality Council met regularly working on implementation of strategic plan goals and objectives. The following is a summary of significant accomplishments under the plan during the year:

(1) A major strategy in the NAVOSH Strategic Plan concerns communications and information systems. We have a multi-year plan to determine our needs, identify systems, and provide a comprehensive and coordinated NAVOSH information system. Under the QMB for Communications and Information Systems, a PAT has been established for Occupational Health automation. A main initiative during FY 1995 was the PAT's review of needs, requirements, and available systems for standardized occupational health automation.

(2) Our Planning and Engineering QMB developed a plan for an automated system to incorporate safety and health into the facility design process. This plan is now under development and will provide standards, criteria, references and points of contact to planners and designers. Using the concept developed for facilities, the QMB is now working on a process for ships and weapons system design.

(3) Process Review and Measurement. This QMB has been pursuing two major initiatives in implementation of strategic plan objectives. The first initiative is to develop a

performance measurement system for shore activities. Considerable progress has been made in this effort and a measurement model has been developed. This model is presently under review and refinement. The second major initiative is a zero based review of NAVOSH regulations. The purpose of this review is to simplify requirements, remove redundancies, and remove unnecessary/non-value added requirements in the spirit of reinvention and downsizing.

(4) Training. The NAVOSH Training Steering Committee acts as the Strategic Plan QMB for training. As discussed later in this report, continuing improvements are being made in training and training programs for all of our personnel ashore and afloat.

d. In the area of occupational health, and as part of our strategic planning process, the Bureau of Medicine and Surgery Occupational Safety and Health Program Improvement Plan (OSHPIP) established a series of process action teams for occupational health program improvement. Some of the actions underway under the OSHPIP include improving the inspection and evaluation process, improving medical case management of injury compensation claims, establishing a process for regulatory review and impact assessment, improving the budget and budget execution process, and improving and standardizing the afloat industrial hygiene survey process.

2. MISHAP REDUCTION INITIATIVES. We continued to incorporate quality management concepts into our efforts to attain overall OSH program improvement. In addition to our initiatives under the NAVOSH Strategic Plan as discussed above, our principle reduction initiative with commands and activities is to get them to develop program improvement plans tied to mishap reduction. Our concept, as explained in past years, is called OSHPIP (Occupational Safety and Health Program Improvement Plans). Under the concept, each command identifies its program deficiencies and mishap trends, and develops strategies and actions to improve the programs and processes. In FY 1995, we completed our sixth year of this program. Through OSH quality management boards and process action teams, our industrial commands have made significant achievements in hazard control. The following summarizes many of our initiatives aimed at **reducing mishaps and injury compensation claims experience and associated costs:**

a. We have continued to develop and provide quarterly performance reports tied to overall reduction goals with performance charts and guidance for goal attainment. In FY 1995, we established new baseline claims rates for commands and major industrial activities using the total claims rate, with FY 1990 established as the base year. We have continued to monitor performance each quarter, and have provided revised performance charts to major commands.

b. Continuing our improvement efforts in mishap investigation as discussed the last two years, we have provided improved training, revised reporting forms to identify cumulative trauma disorders, and established a major mishap review board to periodically review significant occupational mishaps. The first Major Mishap Review Board met in 1995 to review several significant mishaps involving fatalities and/or major property damage. As a result of the board

meeting, several program improvements were identified, as well as improvement actions on electrical and weight handling safety. The review board will continue to meet at least twice a year.

c. **CRANE SAFETY.** In 1995, we continued our emphasis and initiatives to improve crane and weight handling safety throughout the Naval shore establishment. A new manual on weight handling program management was issued and there was a considerable increase and improvement in safety guidelines and requirements. Using the Naval Inspector General Report on crane safety, meetings were held to review recommendations and develop a plan of action for program improvement. The action plan has been followed and implementation status tracked. As a result, many actions are underway to strengthen our program including mishap tracking, program promotion, testing and inspection, training, work practice guides, and oversight. Our plan for FY 1996 is to draft a significantly revised program manual to include rigging.

d. **ERGONOMICS.** Our initial ergonomics standard was issued in 1989 and was revised in 1994. In implementation of these program requirements, many actions have been taken by commands and especially our industrial activities to develop comprehensive ergonomics programs. These efforts have been very successful, especially through the use of TQM concepts and worker involvement. In fact, our most successful programs have been driven by a cooperative effort between management and workers that encourages workers to identify and develop ergonomic solutions to workplace stressors. In recognition of this, we completed a Navy Corporate Ergonomics Plan in FY 1995, and following the plan, selected several target installations (model sites) for pilot implementation. The plan provides a comprehensive strategy for implementing an ergonomics process in the worksite over a two year period. Our emphasis in the plan is providing training of managers, ergonomics coordinators, and worker ergonomics teams. Through the teams, an ergonomic process will be implemented at the targeted activities. The process and plan recognizes the importance of management support, worker involvement, and strong oversight/facilitation. The plan also includes measures of effectiveness and data collection requirements. Experts are sent to the model sites to aid in implementing and monitoring the process. Our intent is that after the six model sites (and two ships) have completed the pilot program, the process will be expanded to other sites throughout the Navy.

e. **MISHAP COST REDUCTION MODEL.** We continued our major effort to develop a mishap cost-reduction model for the NAVOSH program. We refined the model developed last year for long term mishap/case cost projection using the aid of professional actuaries. In addition, we continued developing a model for activity performance analysis and comparison. We believe this effort has application throughout the Federal government and will provide very useful tools for OSH program analysis. The compensation cost projection model is a tool that can be used to estimate the true costs of an injury (compensation claim) and project the long term costs for the government. This model can also be used to focus case management and mishap prevention efforts to those cases that have the greatest potential cost (and savings) to the government. In terms of performance analysis and projection, we have almost finalized a computer program that automates both personnel and injury compensation claims data. The program provides not only standard analytical screens, but also allows the user to develop

specialized analyses. The program contains equations for "normalizing" data that will permit better comparisons between different types of activities or organizations. We will continue the development of these models for use throughout the U.S. Navy and, hopefully, for evaluation by the Department of Labor and the entire government.

3. THE NAVOSH TRAINING PROGRAM. We continued to expand NAVOSH training in FY 1995 with many new courses offered and additional course offerings provided. Our emphasis continues to be to provide professional training at the sites (bases) where the highest demand exists. Our FY 1995 schedule included over 450 class offerings in subjects ranging from advanced mishap investigation to construction safety. We believe we offer the most comprehensive safety professional training program within the U.S. government.

a. A significantly revised NAVOSH and Hazardous Material Control and Management Naval Training Plan was issued during the year. This plan outlines all training requirements, ashore and afloat, for the U.S. Navy and provides a plan of action and process to implement and improve training.

b. We continue to oversee the training process through the NAVOSH Training Steering Committee that acts as the quality management board (QMB) for safety and occupational health training. It is established through the Naval Training Plan (NTP) as a means of providing broad command input in the training process. The Steering Committee is supported by four working groups (acting as process action teams (PATs)) representing the four communities in the Navy (air, ships, submarines and shore). Through these groups, requirements are identified, defined and incorporated into the NTP for development and implementation. Numerous changes were made to the NTP action plan during the year based on reviews and recommendations made by the working groups. The steering committee was also made the QMB for the NAVOSH Strategic Plan strategy for training, which is discussed earlier in this report.

c. In our efforts to improve the coordination and quality of training, the U.S. Navy continued to chair the Department of Defense Subcommittee on Safety, Occupational Health and Fire Protection Training. The subcommittee developed a catalog of all standard OSH courses in DOD, identified core professional development needs and requirements for OSH personnel within DOD, developed a coordinated list of specific training needs from the OSHA Training Institute; and began initiatives to better coordinate training development and delivery between services. During FY 1995, the sub-committees efforts were directed to the Interservice Training Review Organization (ITRO) review of safety training. This review was aimed at consolidating safety training throughout DOD. After several meetings, a report on consolidation was drafted and is awaiting approval of the ITRO executive board.

d. Prerequisites and quota control mechanisms were revised for NAVOSH training courses to better assure training is directed to the proper individuals and better manage our resources.

e. We continued our emphasis on significantly improving training, especially afloat, with continued course review, and development of standard videotapes for distribution to both fleet and shore commands.

f. We completed the study to determine OSH professional training needs at the activity level, and afloat, and began reviewing the study results to determine future course delivery.

g. The pilot tuition reimbursement program, started in FY 1994, was refined and expanded during the year with additional training options added.

h. Finally, we conducted a very successful NAVOSH Professional Development Conference with approximately 250 personnel in attendance. The conference included lectures on managing change, risk communication, ergonomics, violence in the workplace, base closure safety, the NAVOSH Strategic Plan, injury/illness analysis, and the legal aspects of safety. In addition, several special short courses were provided on TQM and safety, fall protection, electromagnetic radiation, managing stress, accident investigation, medical case management, and indoor air quality.

4. WORKPLACE HAZARD ABATEMENT. THE NAVOSH DEFICIENCY ABATEMENT PROGRAM. An integral part of our mishap prevention program is the correction of workplace hazards identified during inspections, investigations, evaluations, oversight inspections, and as a result of employee hazard reports. Our program to correct hazards and improve the workplace is explained in the NAVOSH Program Manual (OPNAVINST 5100.23D, Chapter 12). The Naval Facilities Engineering Command (NAVFAC) has lead responsibility for administering our centrally managed program to abate major deficiencies. Under this program, projects costing more than \$25,000 to correct, and that involve serious hazards, may be submitted for central funding.

- A major effort was begun in FY 1995 and will continue in future years to discover innovative ways of executing facilities projects in a more timely manner and, thus, correct hazards to Navy employees as rapidly as possible. More projects were executed using in house Public Works forces with a resulting faster turnaround. An additional emphasis has been placed on correcting the most hazardous conditions first vice the oldest projects.

- A major and complete review of all projects in the program was conducted during the year. As part of this review, the priorities for funding were reassessed, and unfunded requirements were reexamined. This review, named a baseline assessment memorandum (BAM) resulted in a revalidation of projects in the program, establishment of new priorities for project execution, and identification of and programming action for unfunded requirements. The BAM is being revised for future budget action.

- Expenditures in FY 1995 under the centrally funded NAVOSH Deficiency Abatement Program were \$7.7 million for approximately 75 projects, including individual facilities projects, and several program improvement studies or projects. From 1979 to 1995, over \$282 million has

been expended under our centrally managed program to correct serious workplace deficiencies, and over 1545 major facility projects have been completed. Projects funded include asbestos removal, industrial ventilation improvements, noise abatement, electrical safety hazard removal, and hazardous material control and storage.

- Outyear target projections for the NAVOSH Deficiency Abatement Program are as follows:

FY 96	\$ 9.7 million
FY 97	\$13.7 million
FY 98	\$12.0 million
FY 99	\$11.1 million
FY 00	\$11.6 million

Program focus in FY 1996 will be to continue to improve service to shore activities in executing local deficiency abatement projects; to streamline the process for acquiring and distributing funds; and to refine the overall process to insure the most hazardous deficiencies are corrected first; and to identify the most cost effective and rapid methods for executing projects. In addition, we will continue to offer our course to train local asbestos program coordinators in asbestos management practices.

5. BASE CLOSURE AND DOWNSIZING. The impact of downsizing and base closure on occupational safety and health programs and occupational mishap claims continues to be a major concern. The maintenance of professional OSH staffs and strong mishap prevention programs is a significant problem at bases being closed, and we are seeing increases in claims at many bases facing closure. Due to our concern about the maintenance of strong occupational safety and health programs during a period of downsizing, we issued clear guidance to our commands in 1992, 1993 and 1994. Giving special concern to the impact of BRAC 1995 on our programs, our NAVOSH Quality Council established a team with the task of developing a Navywide guide for use in addressing OSH program concerns at bases facing closure. As a result of this effort, we completed and issued a manual for OSH at BRAC sites. The comprehensive manual includes guidance on management, injury compensation, occupational health, recordkeeping, inspection, site closure and property/personnel transfer. In addition, at our NAVOSH conference this year, we provided an afternoon of panel discussion on base closure issues, and distributed the BRAC occupational safety and health guide.

6. OCCUPATIONAL HEALTH. Significant occupational health accomplishments in 1995 included the following:

a. An extensive analysis of hexavalent chromium exposures at U.S. Navy worksites was made, and based on this information, action was taken to identify cost effective methods to reduce and eliminate exposures. In addition, a cost analysis was conducted on the impact of lower OSHA standards.

b. A working group was established to develop revised U.S. Navy standards on asbestos. Due to the detailed and extensive regulations of OSHA and EPA, considerable effort was required to prepare the new standards. Draft standards were completed and they should be issued in FY 1996.

c. Our initiative that started last year to standardize shipboard industrial hygiene surveys was completed. This effort was initiated to improve the quality, quantity and efficiency of surveys.

d. Significant progress was made in our efforts to develop a replacement for shipboard oxygen breathing apparatus (OBA) respirators in order to comply with NIOSH approval requirements. A new respirator, named the fire fighting breathing apparatus, will be a significant improvement over the OBA and will improve protection for firefighting and emergency use aboard ship.

e. The Naval Aerospace Medical Research Laboratory invented an advanced hearing protective device that is expected to reduce noise by over 30 decibels. This device will be of significant importance in high noise hazard areas, such as aircraft, as well as useful for general industry noise protection, such as in the automotive industry.

f. A complete baseline assessment of the occupational health program was completed during the year. This assessment was made in order to identify needs, requirements and any deficiencies for budgeting and programming in future years.

g. Occupational health efforts continued to be expanded into non-industrial environments including medical settings (e.g. bloodborne pathogens), and offices (e.g. indoor air quality and ergonomics).

7. NAVOSH AFLOAT. Significant initiatives in the afloat occupational safety and health program not covered elsewhere in this report are as follows:

a. During FY 1995, the NAVOSH Afloat Manual was revised. This manual provides guidance to shipboard personnel on the establishment and management of safety and occupational health programs aboardship, and additionally provides shipboard hazard control standards. Revisions to the three volume manual included mishap investigation and reporting, hazardous material control and management, guidance on shipboard poly-chlorinated biphenyls, shipboard fire prevention, new standard operating procedures for shipboard asbestos, and guidance on lessons learned from past operations.

b. As discussed in Section 3. above, increased emphasis was placed on NAVOSH training ashore and afloat. Ten shipboard specific courses are offered by the NAVOSH and Environmental Training Center covering such topics as hazardous material, safety programs afloat, aviation safety, and asbestos emergency response. Due to the high demand, over 90 afloat related classes were offered during the year. Two new shipboard videotapes were distributed in FY 1995 covering shipboard painting and preservation, and basic shipboard NAVOSH indoctrination. Development was started on three other videotapes covering elevator safety,

forklift safety, and general safety short subjects. Revisions to the NAVOSH and HMC&M Navy Training Plan were made to clarify and strengthen afloat training and assure military orientation, apprentice and journeyman training include appropriate safety and occupational health information. In addition, afloat safety personnel were included in the NAVOSH training needs assessment to assure professional needs were adequately identified for future training planning.

V. SAFETY BELT USE PROGRAM.

1. The Navy's policy on safety belt use is contained in OPNAVINST 5100.12F. The Navy requirements include:

a. All persons operating or riding in a government motor vehicle are required to wear a safety belt at all times.

b. All Navy military personnel are also required to wear safety belts in their personal vehicles or while riding in any private motor vehicle both on and off Navy property.

c. Navy federal civilian employees are required to wear safety belts in private vehicles off a Navy property while in a duty status. Everyone is required to wear safety belts while on a Navy property (civilian guest, contractors, dependents, etc.). Violation of the Navy's safety belt use regulation is punishable under the Uniform Code of military Justice for Military personnel, and is the basis for administrative disciplinary action for civilian employees.

2. Actual observances of safety belt use are periodically conducted at many Navy activities. However, there is no requirement for the results of these surveys to be centrally reported. During visits to activities by Naval Safety Center staff, seat belt surveys are conducted. These surveys are made during weekdays and include all vehicles at a particular location at the activity. Observed usage rates range from 89 to 91 percent.

3. Occupant protection programs and activities conducted in FY 1995 include the following:

a. Seventeen messages were released on all aspects of traffic safety including alcohol countermeasures, occupant protection, travel precautions, risk assessment and risk management.

b. 8 motorcycle safety training courses were conducted and 63 instructors trained. Nine AAA-DIP instructor courses were conducted with 93 instructors being trained. Twelve EVOC courses were conducted resulting in 221 trained personnel. Seven traffic safety surveys were conducted.

c. 1155 National Highway Traffic Safety Administration Safe and Sober Quarterly Planners and 550 Drunk and Drugged Driving Awareness monthly Planners were distributed to Navy and Marine Corps activities world-wide..

d. Traffic safety risk assessment and risk management education was taught in post-boot camp training, Navy traffic safety courses, and included in mishap analysis messages.

4. A summary of injuries and seat belt usage data for on-duty motor vehicle accidents during FY 1995 is presented in Table 5 on the next page.

**TABLE 5: U.S. NAVY SAFETY BELT USE
FY-95 ON THE JOB MOTOR VEHICLE ACCIDENT'S GMV/PMV**

Navy Civil Service

<u>Belts Worn</u>	<u>Not Worn</u>	<u>Unknown</u>
Cost <u>\$83,828</u> *	Cost <u>\$00</u> *	Cost <u>\$00</u> *
Deaths <u>0</u>	Deaths <u>0</u>	Deaths <u>0</u>
Injuries <u>5</u>	Injuries <u>0</u>	Injuries <u>0</u>
LWD <u>90</u>	LWD <u>0</u>	LWD <u>0</u>
No Injury <u>7</u>	No Injury <u>0</u>	No Injury <u>0</u>

Navy Military

<u>Belts Worn</u>	<u>Not Worn</u>	<u>Unknown</u>
Cost <u>\$872,250</u> *	Cost <u>\$401,416</u> *	Cost <u>\$31,766</u> *
Deaths <u>0</u>	Deaths <u>2</u>	Deaths <u>0</u>
Injuries <u>4</u>	Injuries <u>0</u>	Injuries <u>1</u>
LWD <u>63</u>	LWD <u>0</u>	LWD <u>13</u>
No Injury <u>133</u>	No Injury <u>7</u>	No Injury <u>2</u>

* Cost includes injury/death cost plus any reportable property damage. The information above includes only those mishaps with property damage in excess of \$2000 and/or injuries with five or more lost work days as reported to the Naval Safety Center.