NAVY CRANE CENTER

FISCAL YEAR 2013

ANNUAL REPORT

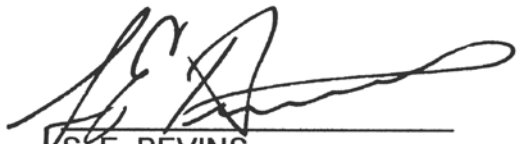
Enable the Warfighter
Act Judiciously
Maintain Readiness

NAVY CRANE CENTER

PEOPLE HELPING PEOPLE PUT SHIPS TO SEA THROUGH WEIGHT HANDLING SAFETY

SUPPORTING FLEET READINESS WITH A STRONG SENSE OF URGENCY

This Navy Crane Center fiscal year 2013 annual report is approved for distribution.

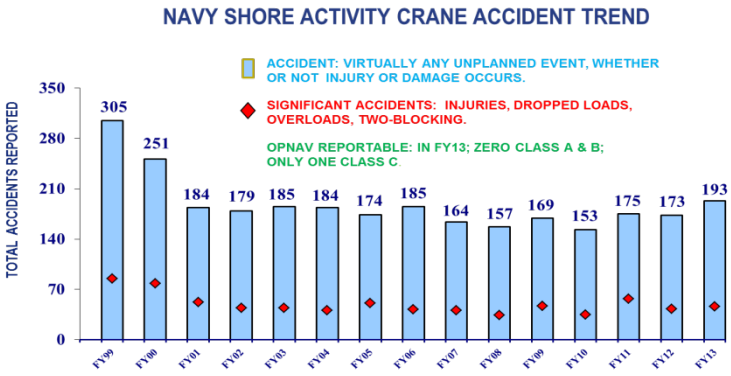


S. E. BEVINS
Director, Navy Crane Center

EXECUTIVE SUMMARY

This Annual Report highlights the many contributions of the Navy Crane Center in Fiscal Year 2013 (FY13) and reports on the progress toward achieving a safe and reliable weight handling program that is essential to Fleet Readiness. This report provides information on our organization, mission, operations oversight, acquisition, engineering technical support, administration and financial execution.

Navy shore activities had another very safe year in FY13. With over two million crane lifts and millions of rigging operations made at more than 400 Navy shore activities, detachments, and shore-based operating units, only one Navy crane accident was reported that reached the reporting threshold of OPNAV Instruction 5102.1, and it was a Class C accident, achieving one of the safest years of Navy shore weight handling operations on record.



With our "wide aperture" definition for crane and rigging accidents, i.e., virtually any unplanned event regardless of degree of injury or whether damage occurred, our philosophy of reporting, analyzing, and learning from the small events has proven effective in keeping the number of truly serious accidents at a very low level. We are now realizing incremental progress in raising the sensitivity on the part of activity personnel to report near misses and other unplanned events in addition to those events that meet our comprehensive accident definition. Activities continued to respond well to the challenge of reporting near miss events during FY13 by exceeding the near miss report submissions of FY12 by approximately 55 percent. This healthy strategy will significantly and continuously improve the safety of Navy shore weight handling operations over the long term.

Despite the outstanding record of avoiding serious accidents, there were still 46 crane accidents and 24 rigging accidents that involved non lost time injuries, dropped loads, two blockings, or overloads. Accidents classified as such typically have a higher probability of a more severe outcome. Identifying unsafe acts before they lead to accidents is a significant challenge in the weight handling community. More and more activities have established oversight (surveillance) programs to find, document, and learn from such acts. The Navy Crane Center made this a major focus of our evaluations of weight handling programs and provided activities with numerous examples of lapses, shortcuts, and unsafe acts during reviews of shop, waterfront, and in-hull operations. As the Navy shore activities' oversight programs mature, we should see declining accident severity trends in the future.

We continued to issue Weight Handling Safety Briefs to quickly promulgate current negative or dangerous trends in weight handling equipment and operations. These briefs are intended to quickly notify and enlighten the men and women in production shops and at the waterfront who conduct millions of lifts annually at Navy activities.

Activity compliance with NAVFAC P-307 requirements continued at a very high level. In FY13, only three activity weight handling programs evaluated were adjudged as unsatisfactory. This is a positive indicator of the importance of well-maintained, safe equipment operated in a safe manner. It also reflects the commitment of Commander Navy Installations Command, Regional Commanders, and Enterprise Commands to provide the resources and support necessary for a successful weight handling program. The Navy Crane Center continues to provide technical assistance, training, and additional monitoring to those activities that are experiencing challenges meeting NAVFAC P-307 requirements due to such factors as the loss of key personnel, new missions, and increased operations tempo.

Navy shore activities maintained the high standard of equipment condition established in previous years. This metric is a key indicator of equipment readiness at Navy shore activities to meet Fleet weight handling requirements. Crane mechanics, inspectors, and load test directors have continuously improved their proficiency over the years.

Our Acquisition Department continued to make significant contributions assisting Navy shore activities to meet mission requirements and maintain Fleet Readiness through acquisition and reconstitution of weight handling equipment. In FY13 we awarded orders for delivery of 27 new or overhauled cranes and accepted 41 cranes. We provided consultation and technical assistance on 63 cranes not procured by us, including specification development, cost estimating, quality assurance, and life-cycle support. Additionally, we also provided technical and procurement services for container cranes at military ocean terminals in Sunny Point and Concord.

Training is a major contributing factor to the improvements being achieved by the Navy shore activities. In addition to instructor-led training, the Navy Crane Center provides 17 web-based weight handling training courses on Navy Knowledge Online (NKO), enabling students to take the training at their own pace and avoiding travel costs. Approximately 6900 course completions (by nearly 5400 personnel) were recorded during FY13. In FY13 we worked with the training establishment to enable students to access our courses directly through the Navy eLearning website. Contractors and members from the other services with valid common access card identification will no longer need sponsorship to access these informative and popular courses.

A safe and effective weight handling program is essential to Fleet Readiness. The Navy Crane Center provides effective criteria management, oversight for compliance to maintain readiness, training support, assistance in weight handling program management, engineering, inspection, safety analysis and reporting, and acquisition of new and reconstituted equipment to assist Navy shore activities in support of the Navy's increasing mission challenges.

NAVY CRANE CENTER

MISSION

We lead the Navy's shore activity weight handling program by establishing policy and providing engineering, acquisition, technical support, training, and oversight for compliance to maintain readiness.

VISION

We are the organization of choice for weight handling program solutions. We are leaders who offer and deliver timely and effective weight handling program solutions.

FUNDAMENTAL OPERATING PRINCIPLE

Our Navy Crane Center Team will NEVER compromise safety and quality as we work to meet schedules with a strong sense of urgency in support of Fleet Readiness.

Our Actions are guided by the Navy's core values of HONOR, COURAGE, and COMMITMENT.

CONTENTS

NAVY CRANE CENTER

Our headquarters is located in Portsmouth, VA at the Norfolk Naval Shipyard. Our field offices are located at the three other Navy shipyards (Pearl Harbor, HI, Portsmouth, NH, and Puget Sound, WA) and in San Diego, CA, Silverdale, WA, Newport News, VA, and Groton, CT.

PEOPLE

We are engineers, project managers, contract specialists, equipment specialists, counsel, training specialists, safety specialists, information technology specialists, and support professionals dedicated to the success of our supported commands and Navy shore activities that provide a vast array of safe and reliable weight handling services to our fighting forces. Corporately, we have centuries of experience in engineering, acquisition, and life-cycle management of weight handling equipment. Our staff includes registered professional engineers, engineers and other professionals with advanced degrees, Defense Acquisition Workforce Improvement Act (DAWIA) certified professionals, members of the Acquisition Corps, graduates of executive and leadership programs, and personnel with hands-on practical experience in the installation, operation, maintenance, inspection, and testing of all types of weight handling equipment.

SERVICES

Our services include the following:

- Engineering investigations of, and solutions to, weight handling equipment problems.
- Acquisition of new cranes and reconstitution of existing cranes.
- Oversight of activity weight handling management.
- Engineering reviews of new crane designs and reconstitution of existing cranes.
- Management of acquisition and engineering services contracts.
- Quality assurance of manufacture, installation, and testing of cranes.
- Review of crane alterations and crane designs by others.
- Configuration management of major classes of cranes.
- Weight handling program management assistance.
- Weight handling accident investigation and analysis.
- Assistance with weight handling safety concerns and issues.
- Formal training in maintenance, inspection, load test, operation safety, certification, and rigging for all types of weight handling equipment.
- Hands-on practical training of maintenance, inspection, load test, operation safety, rigging, program management, and document development and retention.
- Crane safety awareness training for contract administrators.
- Program management assistance for the Navy's floating cranes.
- Production of training and safety weight handling videos.
- Third party certification and validation.
- Development of design specifications for unique cranes and non-routine applications.

MISSION

In September 1997, the Secretary of the Navy signed SECNAVINST 11260.2, *Navy Weight Handling Program for Shore Activities*. This established the Navy Crane Center as an Echelon 3 Command of NAVFAC and the cognizant command responsible for standardizing and improving weight handling programs at Navy shore activities worldwide. As stated in the SECNAVINST, "*Safe and reliable weight handling is critical to the operation of the Navy. Each day, the Navy applies its extensive inventory of weight handling equipment to lift ordnance, naval nuclear propulsion plant components and equipment, new and spent nuclear fuels, electronic equipment, hot metals, components of ships and submarines, supplies, construction materials, and hazardous material items needed to support the Navy's worldwide commitments. Safe conduct of these operations is key to precluding damage to equipment or personnel injury*."

Per SECNAVINST 11260.2, our Director reports directly to the Commander, NAVFAC, and has direct access to the Chief of Naval Operations and the Assistant Secretary of the Navy (Installations & Environment) on matters involving the safe and reliable operation of Navy shore-based weight handling equipment. This instruction assigns the Navy Crane Center responsibility for the Navy's shore activity weight handling program, which includes acquiring large and specialized cranes for Navy shore activities, performing compliance evaluations of all Navy shore activities, providing in-service engineering and accident analysis, and enhancing personnel qualifications through comprehensive training programs. Our major mission responsibilities include:

Policy and Training

- Criteria for design, maintenance, inspection, testing, certification, operation, and rigging.
- Training/qualification requirements and standard training programs.

Compliance

- Evaluations of all Navy shore activities for compliance to maintain readiness.
- Special purpose service validations and third party certifications.
- Crane inventory management.
- Equipment and procedure problem resolution.
- Accident investigation, review, and analysis.

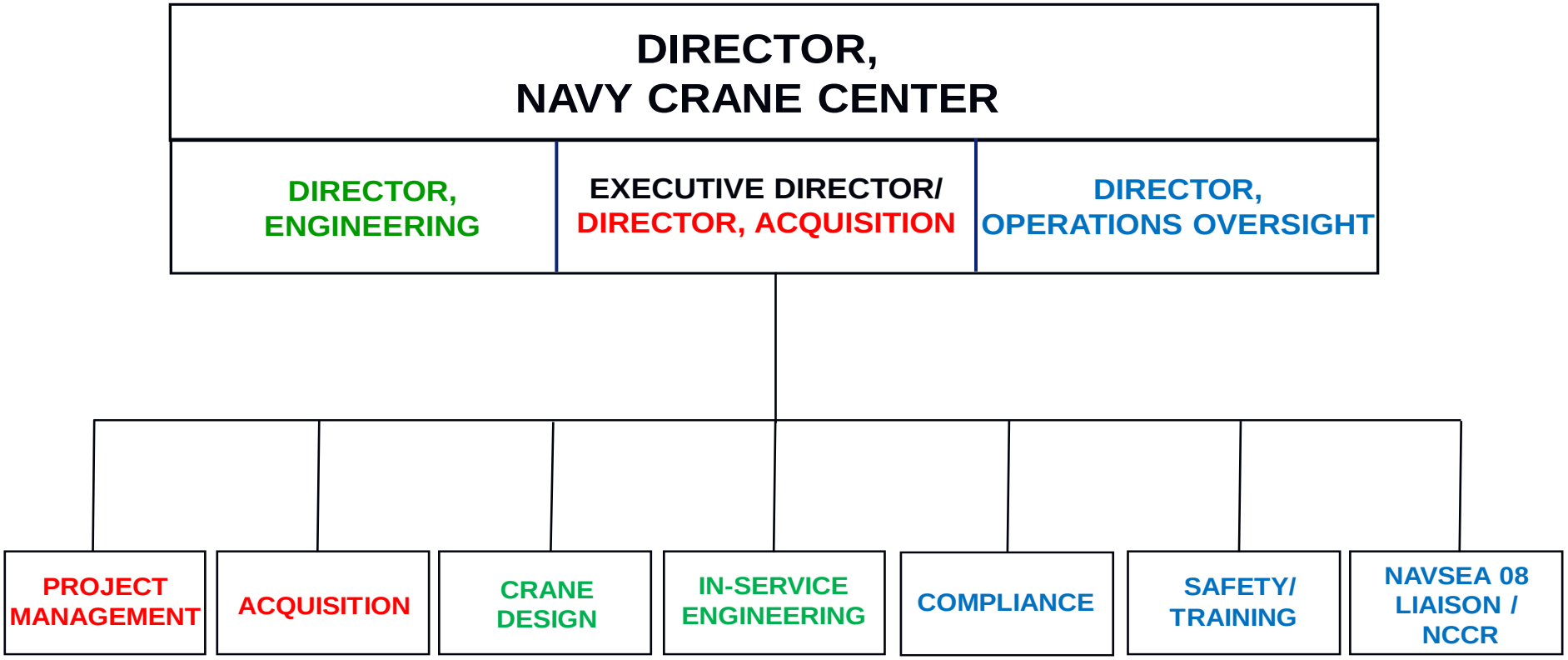
In-Service Technical Support

- Crane alterations and configuration control.
- Weight handling equipment deficiency reports.
- Crane safety advisories and equipment deficiency memoranda.
- Ancillary equipment and controlled disassembly/reassembly procedures.
- Engineering and consultation.

Acquisition

- Procurement of Navy shore-based weight handling equipment and weight handling equipment for other DOD agencies when requested.
- Engineering and consultation.

Navy Crane Center Organization



NAVY CRANE CENTER OFFICES

Bremerton & Silverdale WA

Portsmouth NH

Groton CT

Newport News VA

NCC Portsmouth VA

San Diego CA

Pearl Harbor HI

OPERATIONS OVERSIGHT

The engineers, equipment specialists, safety specialists, trainers, and support personnel who comprise our Operations Oversight Department continued to make direct and significant contributions to Fleet Readiness in FY13 through technical support, program oversight, accident prevention initiatives, training, and thorough compliance and program management reviews.

The quality of Navy shore activity weight handling management, as reflected in our evaluation program, again remained high in FY13. One key metric is the percent of activities that are in basic compliance with NAVFAC P-307 requirements. In FY13, there were only three programs that were considered unsatisfactory. However, some activity programs had declined from their previous evaluation. Where the decline was significant, the activity was given a summary rating of marginally satisfactory. In FY13, 11 programs were evaluated as marginally satisfactory. Another metric is satisfactory evaluation of sample cranes. Shore activities have continuously improved the quality and reliability of their cranes. In FY13, the satisfactory rate increased to 83 percent, up from 79 percent in FY12. The rate of satisfactory evaluation of sample cranes was 53 percent when the evaluation program began.

Support to the Naval Nuclear Propulsion Program (NNPP) continued to expand in FY13. The Navy Crane Center conducted the first-ever weight handling program evaluations of the three Departement of Energy (DOE) laboratories that conduct NNPP work and assigned a Navy Crane Center Representative to liaison with these laboratories. We continued to assist Naval Reactors in their initiative to improve the weight handling programs by evaluation for compliance to the recently implemented NAVFAC P-307 requirements. The Navy Crane Center also initiated mid-year assist visits at NNPP DOE sites to continue improvement with a cost-efficient crane maintenance program. Additionally, we assisted Naval Reactors with special purpose service weight handling reviews in preparation for NNPP key events at Newport News Shipbuilding and Electric Boat Corporation.

We continued to provide "next day" service for third-party certification of cranes required for provisioning ships on short notice. We provided on-site program evaluations and inspection services at PWD Barking Sands, Southeast Alaska Acoustic Measurement Facility, PWD Mechanicsburg, PWD Earle, PWD New London, Bettis and Knolls Atomic Power Laboratories, Newport News Shipbuilding, Electric Boat Corporation, and the Naval Reactors Facility.

Finally, we continued to provide multi-faceted support to the Naval Construction Force, including participation on steering groups, hands-on training, engineering, and technical support for their many and varied missions worldwide.

NAVY SHORE ACTIVITY
WORLDWIDE CRANE INVENTORY

CRANE TYPES	NUMBER OF CRANES
Category 1 Cranes	422
Category 2 Cranes	394
Category 3 Cranes	6,519
Category 4 Cranes	98
***TOTAL**	**7,433**
***Includes Active and Inactive Cranes**	

Types of Cranes

Category 1 Cranes

Portal cranes
Locomotive cranes
Floating cranes (YD)
Container cranes
Aircraft crash cranes
Hammerhead cranes
Derricks
Tower cranes
Mobile boat hoists including self-propelled and towed types
Rubber tire gantry cranes
Mobile cranes (except those indicated as category 4) including truck, cruiser, crawler, warehouse/industrial cranes, and cranes used for dragline, pile driving, clamshell, magnet, and bucket work.

Category 2 and 3 Cranes (Cranes with certified capacities of 20,000 pounds or greater are category 2. Cranes with certified capacities less than 20,000 pounds are category 3.)

Gantry cranes (rail mounted)
Jib cranes
Pillar jib cranes
Wall cranes
Pillar cranes
Boat davits
Overhead traveling cranes (including runway track and hanger supports for underhung cranes).
Monorails and associated hoists (including track, switches, and hanger supports).
Fixed overhead hoists, including fixed manual and powered hoists.
Pedestal mounted commercial boom assemblies (fixed length and telescoping types) attached to stake trucks, trailers, flatbeds, or railcars, or stationary mounted to piers, etc., with certified capacities less than 2,000 pounds.

Category 4 Cranes

Commercial truck mounted cranes.
Articulating boom cranes, including ammunition handling truck/cranes with equipment category code 0704.
Pedestal mounted commercial boom assemblies (fixed length and telescoping types) attached to stake trucks, trailers, flatbeds, or railcars, or stationary mounted to piers, etc., with certified capacities of 2,000 pounds and greater.

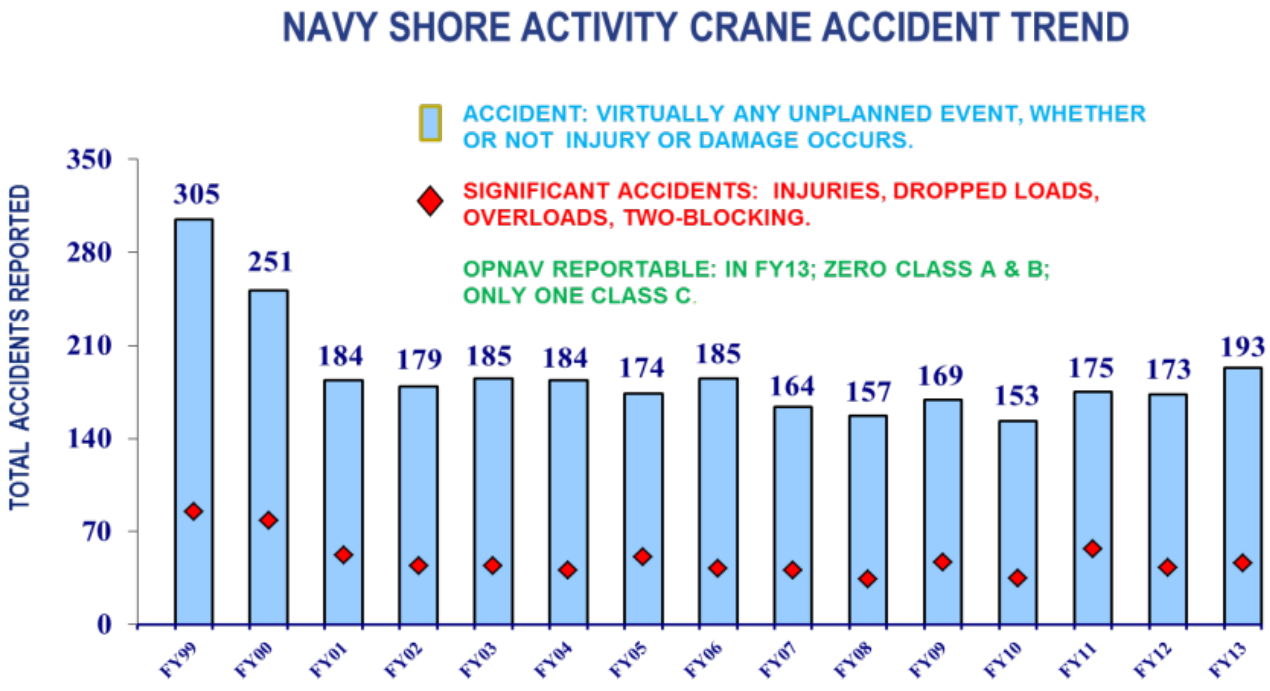
CONTAINER CRANE

WEIGHT HANDLING EQUIPMENT ACCIDENTS

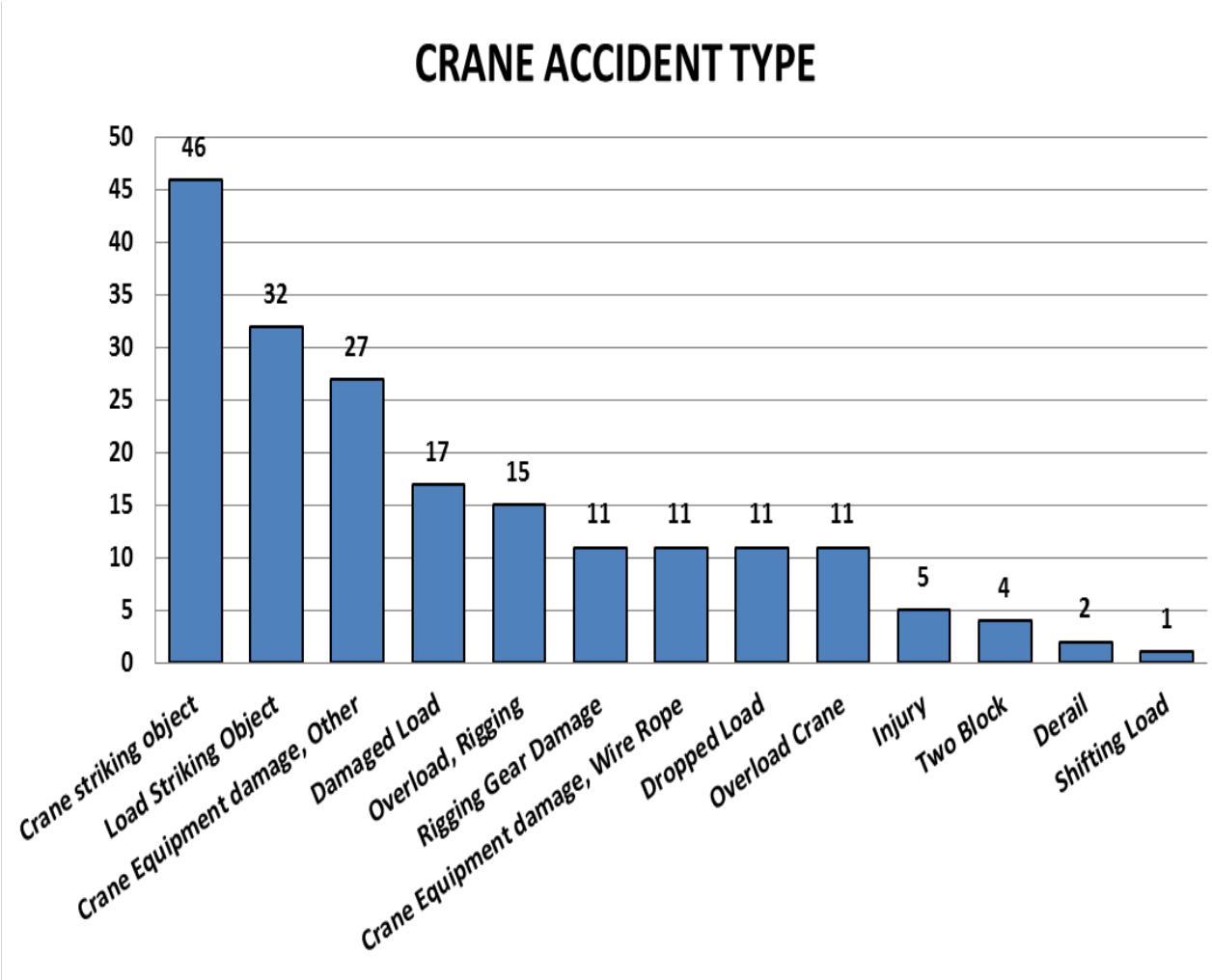
To maintain our intense focus on SAFETY, we have very rigorous crane and rigging gear accident definitions that include essentially any unplanned event in a weight handling evolution whether or not injury or damage occurs. The basic strategy is that ALL accidents (regardless of severity) must be reported to ensure we benefit from the lessons learned to prevent more serious accidents from occurring. We have encouraged all Navy shore activities to make the principles of OPNAVINST 3500.39C, Operational Risk Management (ORM), standard practice for every weight handling operation. This includes operating a crane without a load. In FY13, 44 percent of all crane accidents occurred with no load on the hook. Consistent application of ORM principles during every crane operation will significantly reduce accident severity. Human error continues to be the primary cause of most accidents. We continue to encourage Navy shore activities to drive toward our goal of continuous improvement of safety in weight handling operations. We also strongly encourage activities to investigate and report near misses and other unplanned events that do not fall under our accident definition. Learning from such events can prevent accidents from occurring and significantly improve operational efficiency. The submission of Navy weight handling near miss reports increased 55 percent (177 vs 114) over FY12. As recent as FY10, the number of near misses reported was 29. This illustrates how activities are embracing the concept of identifying, correcting, documenting, and sharing lessons learned from tangible anomalies that have the potential to lead to an accident. Activity deckplate operations oversight has contributed to this very positive trend.

CRANE ACCIDENTS

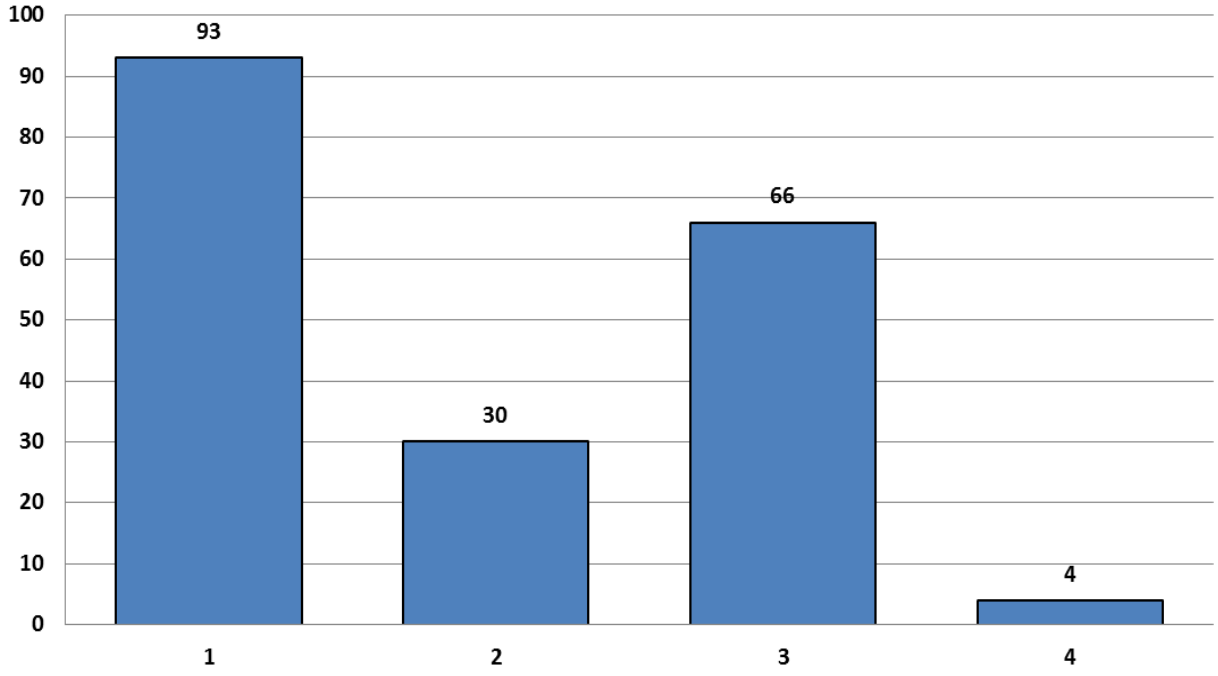
The FY13 crane accident total is 193 as of the date of this publication (46 significant) compared to 173 and 43, respectively, for FY12.



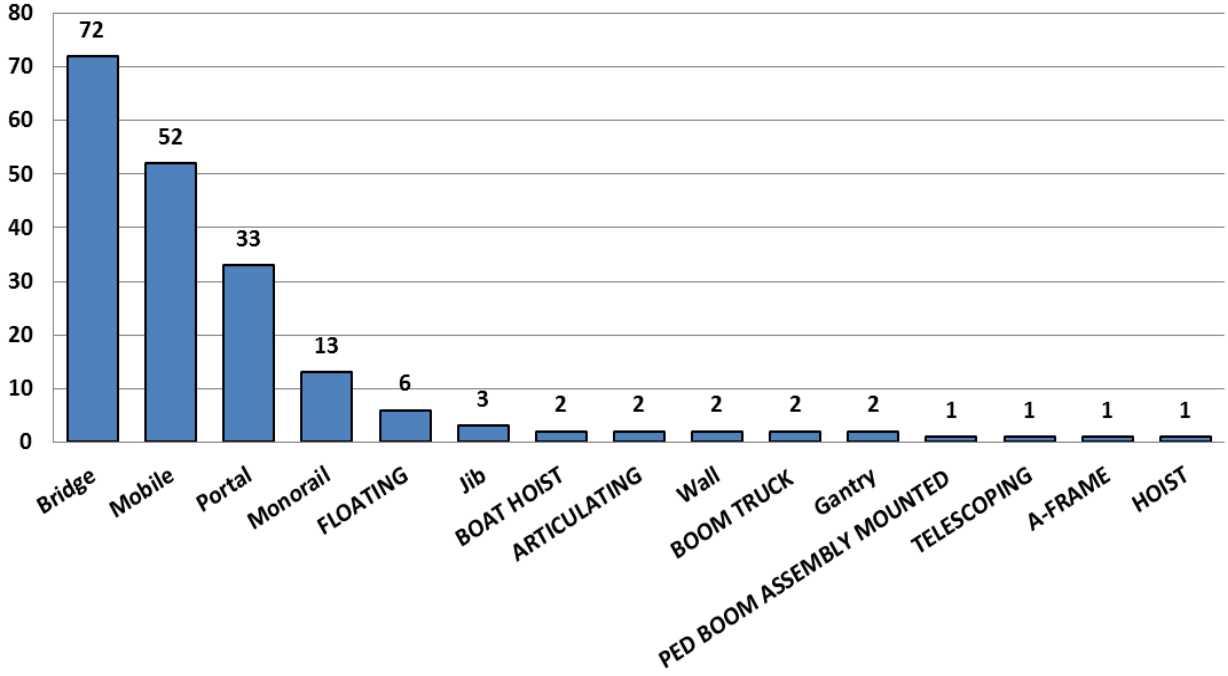
Accidents that are considered significant (dropped loads, two-block, overloads, and accidents involving injuries); i.e., those accidents that have the potential to be more serious, increased approximately 7 percent over the FY12 total, primarily due to an 88 percent increase in rigging gear overloads. Of particular note, only one reported Navy crane accident met the OPNAV accident classification "C" threshold (lost time injury or resulting material damage $50,000 to $500,000) during FY13. Considering the several million lifts that are made each year, this is a major accomplishment! Accidents involving collisions represented 40 percent of all crane accidents. While FY13 saw a 13 percent decrease in crane collisions, load collisions increased 52 percent as compared to FY12. On a very positive note, there was a 60 percent decrease in crane two block accidents as compared to the FY12 totals.



ACCIDENTS BY CRANE CATEGORY

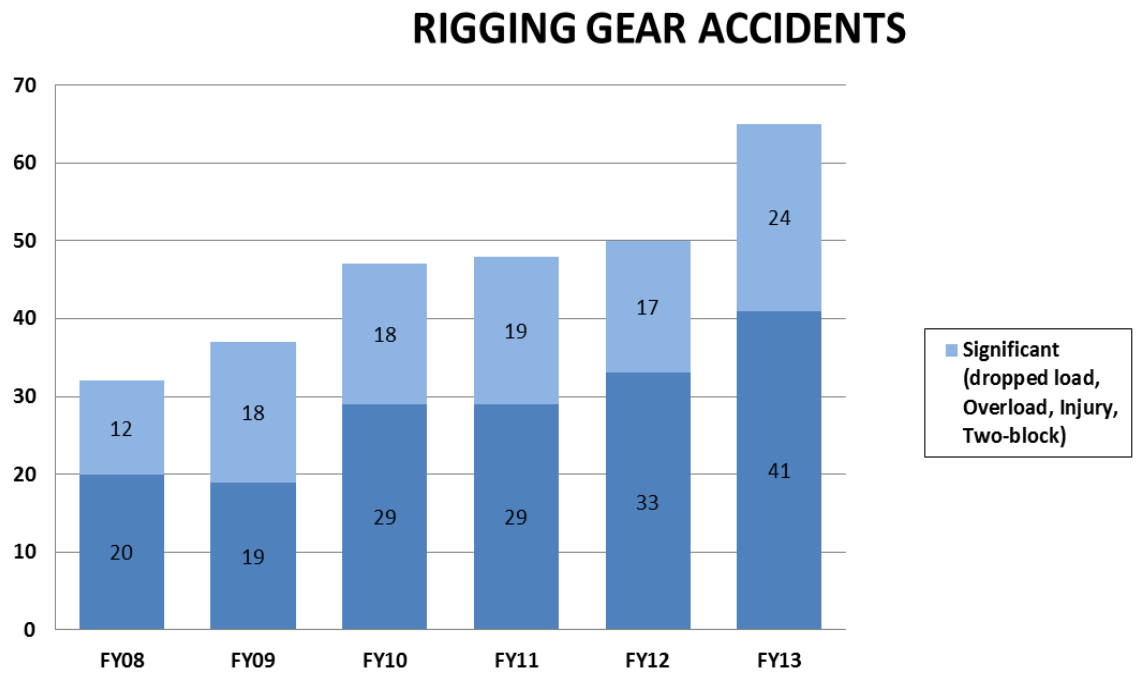


ACCIDENTS BY CRANE TYPE



RIGGING GEAR ACCIDENTS

Rigging gear accidents are those that occur when gear covered by NAVFAC P-307 section 14 is used by itself in weight handling operations; i.e., without category 1 through 4 cranes. In FY13, 65 rigging gear accidents were reported as compared to 50 in FY12. The combined significant accident categories of personal injuries, dropped loads, overloads, and two-blocking accidents accounted for 24 of the 65 accidents (37 percent vs 34 percent in FY12). Eight of the significant rigging gear accidents resulted in minor injury to a person within the weight handling envelope.



EVALUATIONS

The evaluation component of our mission continued to drive improvements in the overall quality and safety of weight handling programs at Navy shore activities and operating units and reinforce the requirements of NAVFAC P-307. Our evaluation teams provide a rigorous compliance and program review that is focused on identifying process problems to better enable the activity to perform thorough self-assessments and to determine effective long-term corrective actions. This evaluation process (along with the integral coaching assistance that occurs during the evaluation) has continued to improve weight handling programs and maintain the reliability of equipment in the Navy shore establishment**.**

Weight handling equipment is owned or operated by over 400 Navy shore activities and shore based operating units worldwide. During FY13, our evaluation teams completed 169 Navy weight handling program evaluations. Our responsibilities, per SECNAVINST 11260.2A, include evaluating all activity weight handling programs every two years at a minimum and suspending unsafe crane operations if necessary.

The Navy Crane Center has five evaluation teams to perform our scheduled evaluations. Each team is comprised of a team leader and two to three equipment specialists with equipment or rigging and operations backgrounds. Evaluation teams 1, 2 and 3 are stationed at Navy Crane Center Headquarters, team 4 is stationed in Silverdale, Washington, and team 5 is stationed in San Diego, California. Additionally, to increase overall flexibility and focus, in FY12 we created two lead equipment specialist positions; one individual serves as the Compliance Division lead equipment specialist for all weight handling equipment issues within the Division and the other is assigned as the lead Navy Crane Center point of contact for Seabee-related weight handling program matters. These positions were created by reducing two of the five evaluation teams from four to three personnel.

In the latter part of 2007, we expanded the focus of our evaluations. Starting with the naval shipyards, we enhanced our evaluation process to include in-depth reviews of staffing and succession planning, resource management, strategic planning, etc. In 2009, we utilized this enhanced evaluation process in all of our evaluations. By increasing the focus on program management issues, Navy shore activity weight handling programs are further strengthened for the long term.

With the success of the expanded program evaluations at shipyards, NAVSEA 08 is no longer reviewing lifting and handling during their biennial reviews. Instead, a NAVSEA 08 representative has been attending Navy Crane Center evaluations on a biennial basis since the beginning of 2009.

The quality of weight handling programs at Navy shore activities remains high. One key metric used is the percentage of activity programs that are satisfactory and in basic compliance with NAVFAC P-307 requirements. In FY13, there were only three activities whose weight handling programs were evaluated as unsatisfactory. Some activity

programs had declined from their previous evaluation. Where the decline was significant, the activity was given a summary evaluation of marginally satisfactory. In FY13, 11 programs were evaluated as marginally satisfactory.

The condition of sampled cranes is another metric for evaluating the quality of weight handling programs. Shore based weight handling activities have demonstrated continued excellent performance with 83 percent of the sampled cranes being satisfactory, up from 79 percent in FY12. In addition, we continued to strongly encourage Navy shore activities to review their crane utilization and remove unneeded cranes from service wherever possible and develop a crane replacement and modernization plan to ensure future weight handling requirements are addressed. Some activities with small inventories of little-used cranes were able to deactivate their inventories and thus avoid the cost of maintaining a weight handling program.

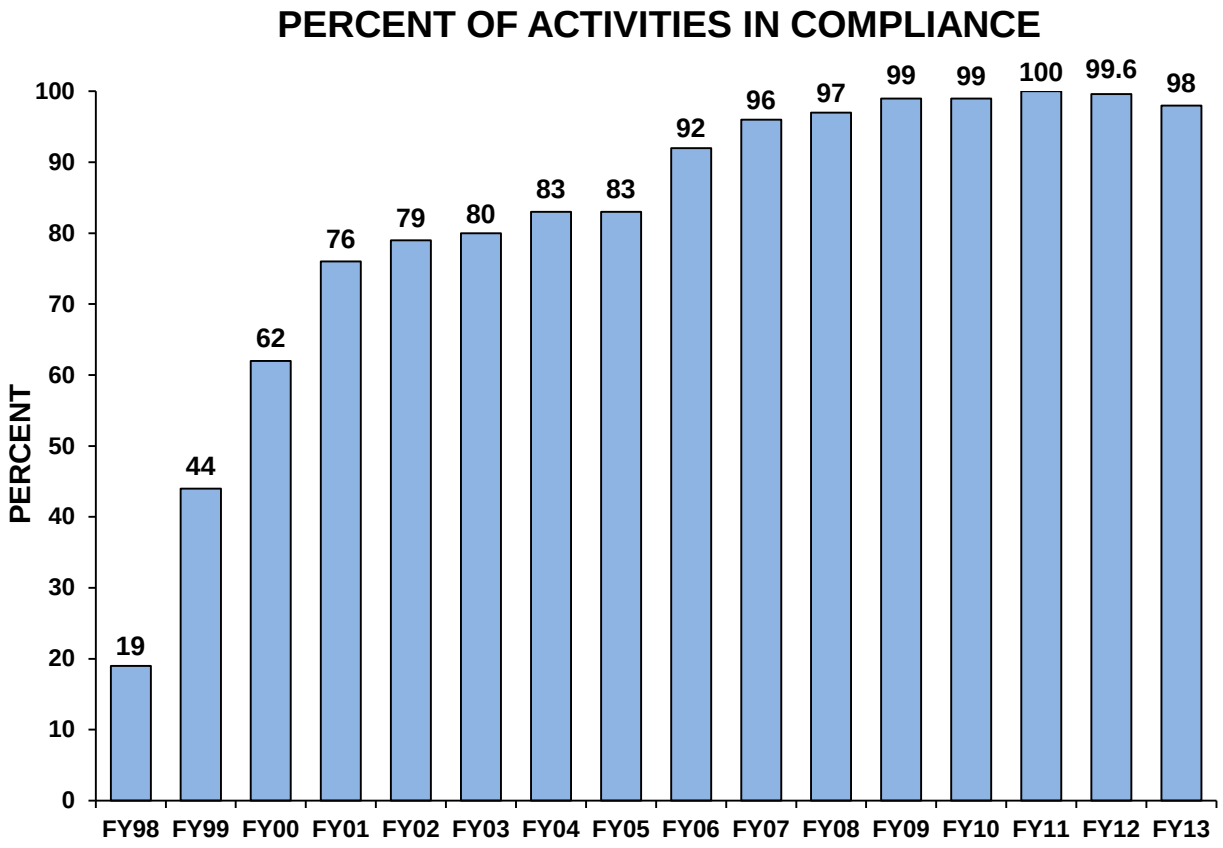
The most common category of evaluation finding in FY13 was the significant numbers of unsafe acts found by the evaluation teams during waterfront and shop surveillances. The evaluators' ability to readily detect these "tangible deficiencies" in the short time of the evaluation highlights the need for activities to become more proficient at finding and preventing them. The evaluation teams stressed the importance, and the benefits, of a locally-developed documented oversight (surveillance) program to improve operational safety.

The Navy Crane Center also performed weight handling program evaluations at Newport News Shipbuilding, Electric Boat Corporation, and the Naval Reactors Facility, Idaho, three non-Navy organizations which support the Naval Nuclear Propulsion Program (NNPP). These evaluations ensure that Navy weight handling standards are maintained at all activities that conduct NNPP work. Reduction in weight handling equipment accidents, standardization among naval shipyards, and sharing of best practices were major areas of focus at each organization. In FY11, Naval Reactors mandated that the laboratories utilize NAVFAC P-307 as the standard for management of their weight handling programs. In FY13, we conducted our first ever weight handling program evaluations at the three DOE laboratories that now fall under NAVFAC P-307.

Activity Program Compliance Progress

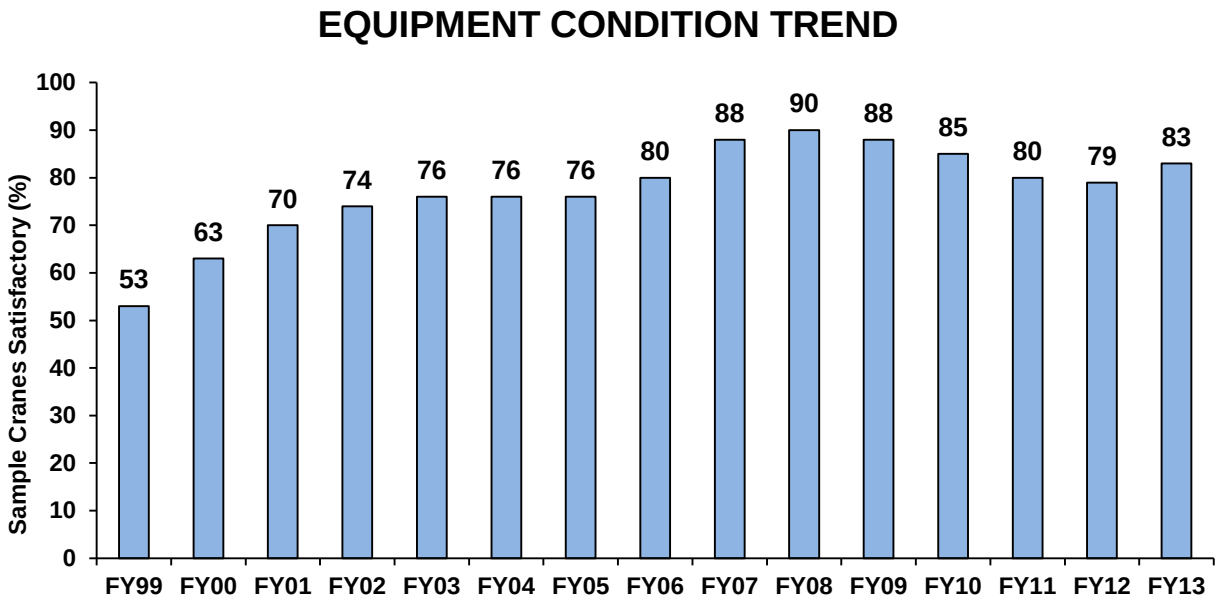
At the conclusion of each evaluation, we provide the activity a summary rating of satisfactory or unsatisfactory. Those satisfactory activities that nonetheless have significant issues to address (as a result of deterioration in their program, factors from our expanded evaluation focus, loss of key personnel, etc.) are adjudged marginally satisfactory. Unsatisfactory activities receive a follow-up review (approximately six months after the unsatisfactory evaluation) to evaluate progress in addressing their significant issues. Revisits to marginally satisfactory activities are dependent on the significance of the issues identified and their evaluation periodicity (annual or biennial).

Of the 169 Navy activities evaluated in FY13, 91 percent were fully satisfactory (fundamentally sound), 7 percent were marginally satisfactory, and only 2 percent (3 activities) were unsatisfactory. The overall positive performance in activity compliance with NAVFAC P-307 requirements is a major improvement from the initiation of the evaluation program in FY98 when only 19 percent of activities evaluated were fundamentally sound.



Equipment Condition-Cranes

In FY13, the evaluation teams inspected 241 cranes out of an inventory of approximately 5,100 active Navy-owned cranes in service. In FY13, the satisfactory rate increased to 83 percent. The rate of satisfactory evaluated sample cranes was 53 percent when the evaluation program began.



Unsatisfactory Cranes

Reasons for unsatisfactory cranes included the following:

- Ten cranes had hoist brake air gaps/torque springs out of specification.
- Five cranes had other components out of proper adjustment/specification.
- Four cranes had load test deficiencies.
- Three cranes had oil film on brake surface.
- Two cranes had cracked couplings.
- Two cranes had noisy motors.

Program Management Issues

As stated earlier, our evaluation teams have expanded the scope of evaluations to include more in-depth looks into overall program management. Although the majority of weight handling programs are well managed, some activities still have challenges. At activities that are operated by base operating service (BOS) contractors, a common thread for good programs was a strong government oversight program of contractor performance. However, in a few instances our evaluation teams identified activities where the proper level of government oversight was lacking, resulting in weak overall program performance. Similarly, these activities have also had difficulty in properly overseeing (non-BOS) contractor crane operations at their activity. Our evaluators focused heavily on both of these related issues. During FY13, our evaluation teams continued their focus on the utilization of self-critical assessment and internal surveillance programs which have proven effective at many activities in reducing weight handling accidents. At activities where operations and services were performed in-house, the better activities have developed a strong surveillance program and are internally self-critical in all areas of their weight handling programs.

In FY13, the overall fiscal constraints presented some unique challenges to our evaluation teams. We directed the evaluation teams to intensify their reviews of program management issues, with particular focus being placed on key vacancies and gapped positions due to the hiring freeze, as well as increased workload due to overall manning decreases, furloughs, and overtime restrictions. At some activities, the tolls of these policies were evident and these issues and concerns were emphasized in our evaluation reports. Additionally, in some cases where the significance warranted, our management separately contacted the affected activity's immediate superior in command to further elevate the issues.

Some activities are still not taking full advantage of recent changes to NAVFAC P-307 that targeted reducing maintenance costs based on thorough detailed analysis of maintenance and reliability data throughout the Navy's shore based weight handling program. Our evaluation teams have focused heavily on these cost avoidance initiatives, while stressing the importance of having a feasible crane replacement and modernization plan to address future weight handling needs.

Over the past few years and continuing into FY13, our evaluations teams increased their focus with regard to the oversight of contractor cranes due to an increase in accidents associated with contractor cranes. We have seen a 30 percent reduction in reported contractor crane accidents from FY10 numbers.

Accidents involving the use of multi-purpose machines, forklifts, and construction equipment to lift suspended loads continued to be of concern. Due to an increase in the use of these machines as substitutes for cranes to lift suspended loads and the problems associated with these operations, the December 2009 revision to NAVFAC P-307 included these machines in our program when the machines are used to lift suspended loads. Additionally, rigging gear used with these machines is now required

to be NAVFAC P-307 compliant and personnel performing the rigging must be trained. This area has been a focal point of our evaluations during the past year as significant problems continue to be identified. As stated in the previous paragraph, a strong government oversight program is critical to mitigate risk and to minimize hazards to Navy property and personnel.

Lastly, a few activities were identified with inadequate category 3 crane operations programs. Common problems seen at these activities included improperly performed crane pre-use checks, the lack of category 3 crane hands-on training following formal training, and operations weakness due to a lack of proficiency (often as a result of too many operators). The December 2009 revision to NAVFAC P-307 requires category 3 crane operators to retake the required training course every three years. This requirement is helping to address this weak area for the long term; however, our evaluation teams still identified some activities that were not aware of the requirement.

Equipment Issues and Deficiencies

In general, maintenance, inspection, testing, engineering, and certification of cranes in FY13 were satisfactorily conducted. Common engineering issues included Navy Crane Center comments to crane alteration requests (CARs) not acknowledged and incorporated, and conditionally approved CARs not resubmitted. Common maintenance and inspection issues included inconsistencies in the performance and documentation of maintenance and inspections, poor or no documentation of specific work performed, and past crane alterations not recognized by inspection personnel. Common test deficiencies included knowledge deficiencies in specific brake testing and errors in brake specification tolerance ranges. Common certification issues include weak review by the certifying official and inattention to detail in the certification documentation.

Common Operations and Rigging Gear Deficiencies

Continued emphasis in safe rigging and crane operations is important to safe weight handling operations. The number of rigging gear deficiencies noted during the evaluations continued to be small compared to the total inventory of rigging gear in the NAVFAC P-307 program. The preponderance of rigging gear deficiencies were the first two items noted below. All damaged rigging gear met the rejection criteria of NAVFAC P-307, the original equipment manufacturer (OEM), or ASME B30 and were no longer safe for use. Most of the noted deficiencies should have been detected by a proper pre-use inspection of the gear. As stated above, due to an increase in the use of multi-purpose machines, forklifts, and construction equipment as substitutes for cranes to lift suspended loads and the problems associated with these type operations, the December 2009 revision to NAVFAC P-307 included these machines in our program when the machines are used to lift suspended loads and the rigging gear used is now required to be NAVFAC P-307 compliant. Additionally, personnel performing the rigging using this type equipment must be trained. A concerted effort by the Navy shore weight handling community is required to continue rigging and operations improvements by maintaining a strong command focus on this critical weight handling area.

In FY13, many activities have taken positive action in recognition of conditions where overloading of the crane or rigging gear is possible due to binding conditions. This is due in part to Change 3 of NAVFAC P-307 which better aligned the complex lift requirements of NAVFAC P-307 and NAVSEA OP-5. Additionally, improved communications between Navy Munitions Command; NAVSEA Packaging, Handling, Storage and Transportation Center; Navy Crane Center and activities that handle munitions resulted in the forming of a Cross Functional Team (CFT) for the safe lifting and handling of ordnance. This CFT facilitates improved communications and better understanding of potential problems in the ordnance environment and establishes a formal method to address and resolve technical differences and misunderstanding of weight handling issues. Because of rapid improvement in load indicating device (LID) technology, commands may not be fully aware of, or are not taking advantage of, the new options these weight load indicators offer. In order to ensure wide distribution of this information, Navy Crane Center evaluators emphasize the benefits of this new technology during program evaluations and encourage activity weight handling managers to invest in LIDs to benefit from the safety that the LID can provide.

The most common operations deficiencies were the following:

Crane Team Performance Issues: In weight handling operations that involved crane teams, deficiencies were identified in crane team member coordination, track walker performance, and in the overall control of the lift by the rigger-in-charge (RIC). Additionally, instances were identified where RICs performed work that could have been performed with other available personnel, distracting them from their primary role of overall control of the operation. In some instances supervisors were observed performing work, compromising their oversight role. This has been a primary focus area for our evaluation teams and, as a result, many activities have improved performance in this area.

Control of the Crane Operating Envelope: Deficiencies consisted of: (1) items being left in the travel zone or working zone of the crane, and (2) unauthorized personnel not being prevented from entering the crane operating envelope, resulting in the load being passed over their heads.

Category 3 Crane Operations: As discussed above, significant weaknesses continue to be identified during observation of category 3 crane operations and pre-use inspections, such as: omitting or improperly performing required pre-use checks, checking upper limit switch operation at high speed, traveling into crane stops at high speed, securing the crane and leaving the hook block lowered as a potential obstruction, stowing the hook by engaging the upper limit switch, making lifts without knowing load weights, and leaving suspended loads unattended. A cause of numerous crane accidents was side loading during lifts, resulting in miss-spooled and damaged wire rope. Our evaluation teams identified an increase in miss-spooled cranes during FY13; we will be increasing our focus in this area in FY14.

Lifting Bound or Constrained Loads: Deficiencies included crane teams not using load indicating devices (LIDs) during lifts; not including appropriate stopping points to prevent overload of the crane, rigging gear, or item being lifted; and lack of a finite means of hoisting, such as using a chainfall.

The most common rigging gear deficiencies were the following:

Damaged Rigging Gear: Gear with deficiencies that met rejection criteria of NAVFAC P-307 was the most common rigging gear finding in FY13. Synthetic sling damage included embedded metal shavings, snags, cuts, abrasions, and cuts to the outer and inner covers of the synthetic round slings exposing the inner core material. In many instances, damage was due to inadequate chafing protection, the selection of improper rigging gear for the job at hand, and in some cases, the damage was due to improper storage of the slings when not in use. The evaluation team continued to stress the importance of investigating the circumstances that resulted in the damage and reporting any events that constituted crane or rigging accidents or near-miss events.

Rigging Gear Not in Any Program: This included gear that arrived on base without the knowledge of the weight handling managers.

Unmarked Rigging Gear: Gear not marked in accordance with NAVFAC P-307.

Out-of-Date Rigging Gear: Gear that was available for use or was actually being used past the marked inspection due date. No segregation of out-of-date gear or gear not in the program.

Inadequate Use of Chafing and Cutting Protection for Slings: Significant problem area which resulted in numerous crane accidents. Focus area of our evaluation teams during observation of inside shop, pier side, and in-hull rigging.

Improperly Tested Gear: Rigging gear tested with incorrect test loads, test loads not applied for proper length of time, and required tests not performed.

Hooks: Damaged hook latches or hooks without latches that were not approved by the activity engineering organization.

Hoists: Failure to comply with Crane Safety Advisories 88 and 121A relating to chain hoists and electric powered hoists.

Wire Rope Slings: Swaged fittings made of materials other than steel. Improper swaging.

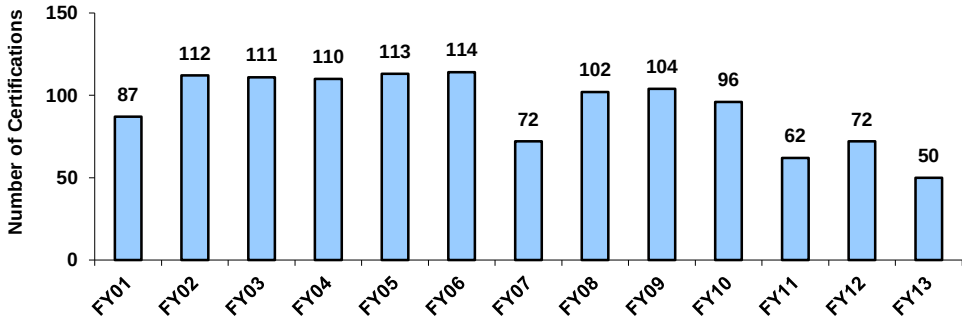
Eyebolts: Spacers that were not the proper diameter or were greater than one thread pitch in thickness. Eyebolts were incorrectly modified without engineering authorization. Nuts that were improperly used. Lifts out of the plane of the eye or lifts at angles that exceeded OEM limitations for use.

Swivel Hoist Rings: Swivel hoist rings not tightened to OEM torque specifications during installation or used in configurations that exceeded OEM limitations for use.

4.5-TON TOP RUNNING BRIDGE UNDERHUNG TROLLEY

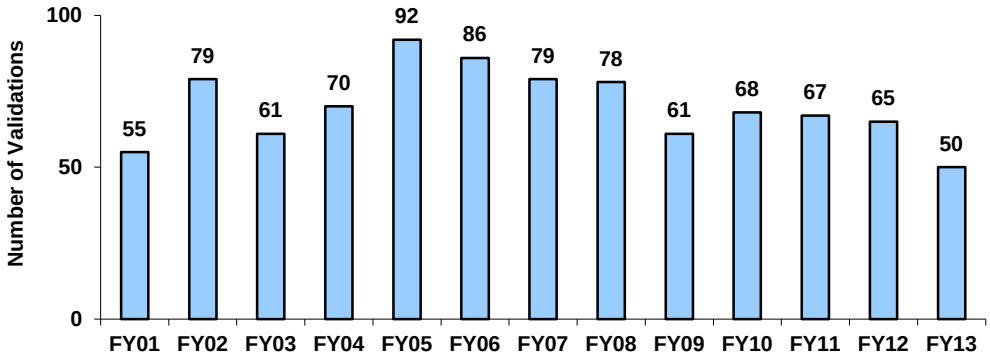
THIRD PARTY CERTIFICATION

OSHA "maritime" standards 29 CFR 1915 (shipyard employment), 29 CFR 1917 (marine terminals), and 29 CFR 1918 (longshoring) require certification of applicable cranes by an OSHA accredited certification agency (third party certification) in accordance with the certification procedures of 29 CFR 1919 (gear certification). These regulations affect floating cranes used in shipbuilding, ship repair, and shipbreaking, and all shore-based cranes used in cargo transfer. NAVFAC P-307 is an OSHA approved alternate standard whereby OSHA recognizes the Navy Crane Center as a third party certifier of Navy-owned cranes to the requirements of NAVFAC P-307.



VALIDATION FOR SPECIAL PURPOSE SERVICE

Validation is the second level approval (by the Navy Crane Center) of the activity certification of cranes used in special purpose service (SPS) as defined in NAVSEA 0989-030-7000. This consists of complete record review, independent condition inspection, and verification of the proper conduct of the crane condition inspection and load test performed by the activity. Navy Crane Center Instruction 11200.34 provides detailed directions. The graph below indicates the number of validations performed, which includes both annual certifications and interim recertifications.



TRAINING

Personnel involved in the maintenance, alteration, repair, inspection, testing, and operation of WHE must be trained and qualified to perform their assigned duties. NAVFAC P-307 establishes minimum training requirements for these personnel. The benefits of NAVFAC P-307 training are increased awareness and safety of personnel and reliability of equipment.

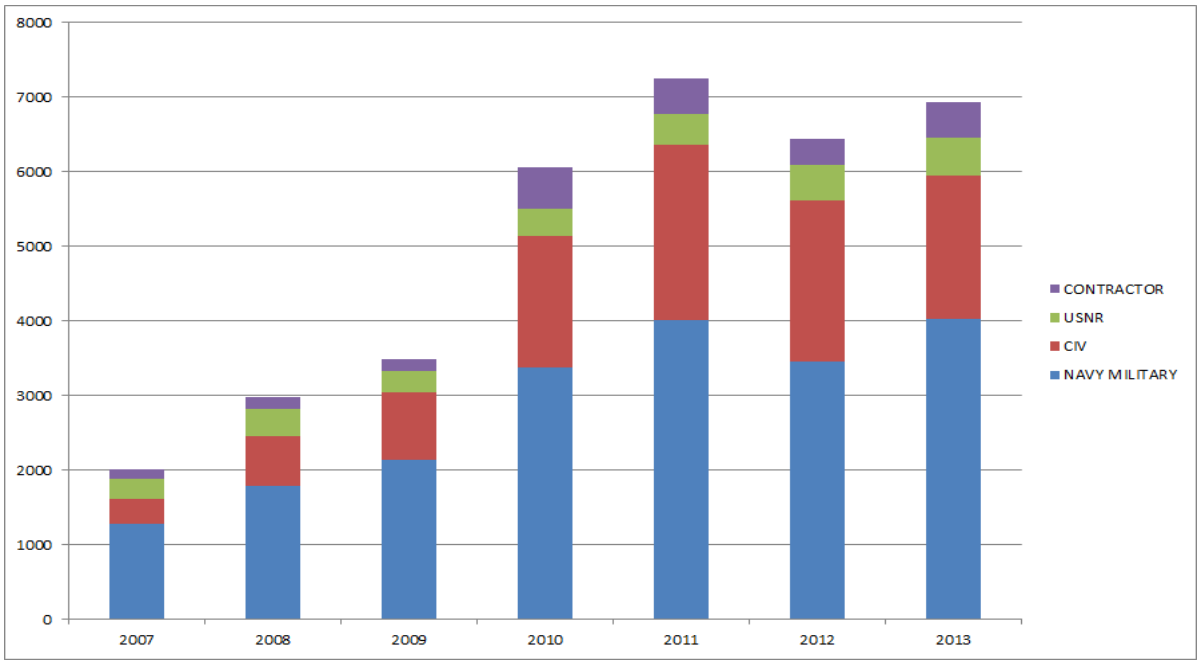
Navy Crane Center currently maintains 17 training courses. These training courses are available as instructor-led training (ILT) and online web-based training (WBT). The availability and use of WBT has demonstrated significant recurring cost avoidance over traditional ILT methods.

ILT remains available upon request on a cost-reimbursable basis. To support these efforts, Navy Crane Center has a cadre of well qualified instructors capable of taking NAVFAC P-307 courses “on-the-road” when and where needed. Additionally, several ILT courses are scheduled annually at a local schoolhouse in the Norfolk, VA area. Nine ILT courses were scheduled in FY13; however, due to fiscal contraints, all classes were cancelled. For the same reason, several potential “on-site” classes were not scheduled.

WBT has become popular with end users. WBT offers a cost free alternative to ILT. During FY13, approximately 6,900 NAVFAC P-307 courses were completed online, as compared to approximately 6,450 completions in FY 2012. Since 2006 approximately 35,000 course completions have been recorded.

Navy military, civilian, and contractor personnel are not the only beneficiaries of NAVFAC P-307 training. Other organizations, such as the Army, Army Corps of Engineers, Marine Corps, Air Force, and Coast Guard have expressed interest in receiving access to the NAVFAC P-307 courses. To facilitate these requests and foster collaborative efforts between services and agencies, Navy Crane Center has made WBT available to these groups as well. And, as mentioned below, these groups can now access WBT directly without going through the sponsorship process.

Web-Based Course Completions by Fiscal Year



Navy Crane Center continued to research and develop web-based training technologies and opportunities to further possible cost avoidances and to improve efficiency and effectiveness of content development and delivery.

- Completed a joint effort with NAVFAC Information Technology Center (NITC) and Outstart-Kenexa (now IBM-Kenexa) to upgrade the learning content management system (LCMS) software (Evolution™), used by NCC to develop WBT.
- Completed LCMS and SCORM 2004 (sharable content object reference model) training for our course developers.
- Established Evolution™ LCMS software application maintenance support contracts.
- Launched a new, improved learning management system (LMS), used by the Naval Education and Training Command (NETC) to deliver WBT via Navy eLearning (NeL).
- Obtained approval for direct access to NeL, allowing personnel from other services to access NAVFAC P-307 courses without going through Navy Knowledge Online (NKO), thus eliminating the time-consuming sponsorship process.
- Reviewed, rewrote, and tested text, graphics and LCMS/LMS functionality of our largest training course, Crane Rigger. The revised course was made available to the Navy public via NeL in July 2013.
- Supported Department of Energy (DOE) labs obtaining new NNPP.net accounts; and supplied, reviewed, and approved course content for use on DOE LMS.
- Supported Navy, Marine Corps, Army, and Air Force active duty, civilian, and contractor personnel with NAVFAC P-307 training efforts at joint and non-joint bases.
- Provided DOD-wide support for sponsorship of personnel into NKO/NEL (sponsorship became unnecessary in August 2013)

ADDITIONAL OPERATIONS OVERSIGHT SUPPORT

Navy Crane Center operations oversight personnel provided a variety of weight handling program assistance to Navy activities and non-Navy organizations throughout FY13.

Training and Presentations

We continued to facilitate transferring Navy Crane Center on-line training to the NNPP website, ensuring the DOE laboratories are provided the same Navy Crane Center training and support as these laboratories shift to becoming NAVFAC-307 compliant facilities.

We gave presentations to numerous weight handling program managers, stressing the value of a strong surveillance program and the importance of identifying problems at the lowest possible level (safety triangle theory) to reduce the frequency and severity of significant events.

Program Reviews

As noted previously, we performed program reviews and crane inspections at both of NAVSEA's prime shipbuilding contractors, Newport News Shipbuilding and Electric Boat Corporation, as well as the Naval Reactors Facility. Additionally, we performed the first ever reviews at Naval Reactor's DOE laboratory and prototype sites in Pittsburgh, PA and Schenectady, NY.

At the activity's request, we met with the Marine Corps Air Station (MCAS), Cherry Point certifying official to discuss the activity's weight handling equipment maintenance program.

We conducted an assist visit at the request of NAVFAC Marianas to focus on problem areas identified during the March 2012 Navy Crane Center evaluation.

We conducted a joint Navy Crane Center and NAVSEA follow-up review and an additional assist visit to Puget Sound Naval Shipyard and Intermediate Maintenance Facility to review their rigging and operations program.

Seabee Support

We are dedicated to assisting the Naval Construction Force to improve their weight handling program for their worldwide missions. Our team hosted a Crane Guidance and Policy Group meeting in December 2012 with a goal of working with the Seabee community to further improve their weight handling programs, increasing overall operational readiness.

In 2013, for the first time we conducted Seabee battalion weight handling program evaluations at the homeports prior to battalion deployment. Previous evaluations were conducted at the deployment sites during battalion turnover with some battalions arriving at the deployment sites lacking desired training and proficiency. This new evaluation process, coupled with other improvement initiatives, should result in long-term improvement in the Seabee weight handling program and provide increased readiness prior to and during deployment.

Our evaluation teams continued to provide reach-back support to the battalions when required.

Technical Support

We provided technical support (assisted in the troubleshooting and the identification of deficiencies) to the Army for two mission-critical container cranes at the Military Ocean Terminal (MOTCO), in Concord CA.

ACQUISITION

Safe and effective weight handling operations begin with the acquisition of quality equipment designed to meet the requirements of our re-published design criteria, Navy Crane Center Instruction (NAVCRANECENINST) 11450.2 (previously UFC 3-320-07N), and life cycle management criteria, NAVFAC P-307. A well-managed weight handling acquisition program is a necessary tenet behind the Navy Crane Center's mission to promote safe weight handling operations at Navy shore activities around the globe.

During the acquisition planning phases, we continue to work closely with our supported commands to gain a full understanding of their needs with respect to budget, mission commitments, equipment operation, operator use, and training and maintenance requirements. By implementing the principles of OPNAVINST 3500.39A, Operational Risk Management, into the specification development and decision-making processes, we promote acquisition innovation in weight handling procurements while effectively managing risk. By translating supported command needs into requirements of the contract and by utilizing a wide variety of acquisition strategies, we strive to deliver equipment that provides the best value for the supported command, not only at contract award or delivery, but also throughout its useful life.

Over time, the effectiveness of our acquisition expertise in adding quality and reliable cranes to the Navy's inventory, has contributed to the continuing favorable weight handling safety trends at Navy shore activities.

During FY13, we executed awards for 27 cranes valued at $10.6 million and completed on-site testing and acceptance of 41 cranes valued at $27.4 million. We provided acquisition assistance on 63 cranes procured by others with a total estimated contract value of $40 million.

ENGINEERING

CRANE DESIGN

The Crane Design Division continues to provide essential professional engineering expertise to ensure the technical adequacy of crane designs as part of acquisition support. The division develops procurement specifications to meet supported command needs commensurate with operational and budget constraints. After contract award, the division reviews the contractor's crane designs to ensure full compliance with the specification requirements and applicable commercial standards, and performs field inspections to verify actual equipment condition and performance meet the approved designs. Our focus is to deliver safe, reliable, and maintainable weight handling equipment to Navy shore activities and other commands worldwide. Our experienced crane engineers and equipment specialists, supplemented by engineers from our In-Service Engineering Division, have a unique ability to provide weight handling solutions. The integral quality assurance function, supplemented by equipment specialists from

other areas within Navy Crane Center, enhances field verification and testing of equipment, resulting in outstanding reliability of equipment during and after the warranty period.

Crane Specifications

Incremental improvement of specifications continues to be a cornerstone initiative for the Design Division. Supported command and contractor feedback is used to evolve equipment, documentation, and process improvements. Similarly, our internal group reviews of specifications continue to ensure uniformity of specifications by considering input from all design personnel, and simultaneously cross-training division personnel on specification descriptions of equipment outside of their normal areas of expertise.

Specific design elements included in specifications are continuously reviewed. Improvement items are added periodically and unnecessary items are removed to better align Navy designs with industry standards and assist in crane program management.

Design Criteria Update

When possible, the Navy Crane Center invokes standard commercial or performance specifications rather than prescriptive detailed specifications for custom designed cranes. In FY13, we issued a major revision of our policy for the design of Navy shore weight handling equipment. This revision, issued as a Navy Crane Center Instruction (NAVCRANECENINST) 11450.2, Design of Navy Shore Weight Handling Equipment, supersedes Unified Facilities Criteria (UFC) 3-320-07N. Updates to our design requirements reflect lessons learned and incorporate technical changes and improvements to design criteria. In addition, rigging gear and miscellaneous equipment design and procurement requirements, and Special Purpose Service (SPS) crane design requirements, previously addressed in the NAVSEA Lifting Standard, have been included in NAVCRANECENINST 11450.2.

Guide Specifications

Unified Facilities Guide Specifications (UFGS) are provided for the procurement of general purpose cranes with rated capacities less than 20,000 lbs. The guide specifications are intended to be used by facility designers (for cranes included in facility construction contracts) and by user activities as a base specification for equipment procurement. The following joint forces documents are located on the Whole Building Design Guide web site, www.wbdg.org:

- UFGS 41 22 13.13 Bridge Cranes
- UFGS 41 22 13.14 Bridge Cranes, Overhead Electric, Top Running
- UFGS 41 22 13.15 Bridge Cranes, Overhead Electric, Under Running
- UFGS 41 22 13.16 Gantry Cranes
- UFGS 41 22 23.19 Monorail Hoists

An additional guide specification for jib cranes is in final review and is expected to be uploaded to the WBDG web site in FY14. This additional specification was requested by several supported commands to guide self-procurement of jib cranes. The Design Division will continue to review demand for specialized specifications, such as workstation cranes, and will propose creation of new guide specifications when appropriate. Additionally, with publication of NAVCRANECENINST 11450.2, the UFGS's will be reviewed and revised as appropriate to reflect updated requirements.

NAVFAC Design-Build Model Specification

Section D10, Conveying, of the NAVFAC Design-Build Model Request for Proposal, Part 4, Performance Technical Specification, provides a performance technical specification for building conveying systems, including cranes. This document is published by NAVFAC Engineering Innovation and Criteria Office to ensure cranes procured using its guidance meet Navy Crane Center design and certification requirements. Similarly, the Part 3, Chapter 6, Engineering System Requirements, provides general design guidance for cranes installed as part of building projects. This specification will be reviewed and revised as appropriate to reflect updated NAVCRANECENINST 11450.2 requirements.

Design Improvements/Introduction of New Products

We maintain a continuous incremental design engineering improvement philosophy. The sources of such improvements are contractor recommendations, technical articles, supported command suggestions, and our own ideas. Crane industry, engineering, and construction literature are continuously monitored to take advantage of any new products that could enhance the quality or improve the safety of new cranes or could be applied to existing cranes. Description of such products is communicated to the Navy shore activities through our quarterly publication, *The Crane Corner*, available on our Navy Crane Center website.

National and International Criteria Organizations

To ensure that our engineers have the ability to recommend the latest design improvements, and to ensure that our crane designs reflect the latest industry standards and practices, our Engineering Department continues to maintain a presence on standards committees that impact crane design. In addition to the American Society of Mechanical Engineers (ASME) B30 Standards Committee, we attend discussions by the Cranes Technical Committee of the Association for Iron and Steel Technology and the ASME Standards Committee on Cranes for Nuclear Facilities. These committees meet quarterly or semi-annually to discuss innovation and safety standards for new and existing equipment. Department personnel also attend regular industry trade shows to ensure that we are able to reflect the latest field-proven innovations in our crane designs. We continuously review crane design guidance to ensure latest practices are incorporated into guidance.

ASME B30 Crane Safety Standards Committee

Navy Crane Center personnel participate in the development of ASME B30 crane safety standards in order to provide a Navy voice for this important organization. The B30 standards are the nationally recognized consensus safety standards for cranes and related equipment. Crane Design Division and In-Service Engineering Division personnel retain membership on the Main Committee and the following subcommittees: B30.2, Top Running Bridge Cranes; B30.4, Portal and Pedestal Cranes; B30.8, Floating Cranes; B30.9, Slings; B30.10, Hooks; B30.11, Monorails and Underhung Cranes; B30.13, Storage/Retrieval Machines and Associated Equipment; B30.16, Overhead Hoists, Underhung; B30.17, Bridge Cranes with Underhung Hoists; B30.22, Articulating Boom Cranes; B30.24, Container Cranes; B30.26, Rigging Hardware; and the newly established B30.30, Ropes. Additionally, we have a member on the recently reestablished ASME Slewing Ring Bearing Committee.

Quality Assurance

Our engineers and equipment specialists apply their extensive experience and practical knowledge to ensure that all cranes purchased by the Navy Crane Center are safe and reliable. They perform detailed hands-on inspections and document review, and witness extensive testing to ensure that the delivered cranes meet the contract specification, design drawings, national and industry standards, and the supported command's requirements. Working closely with contractors, receiving activity representatives, end users, and Defense Contract Management Agency representatives during all stages of crane fabrication, assembly, delivery, installation, and testing, our standard process enables the receiving activity to use our contract acceptance test to satisfy the certification test requirements of NAVFAC P-307. This process provides significant cost avoidance for the Navy activity by eliminating the need to perform a separate certification inspection and test. This process also allows the activity to put the crane in service immediately after acceptance, taking advantage of the entire warranty period.

Quality assurance continues to benefit from the use of Quality Assurance checklist templates. Starting with standardized checklists across a wide variety of overhead and waterfront crane equipment allow quality assurance plans to be prepared for any project in a minimal amount of time with greater accuracy.

Design Division personnel continue to utilize standardized formats for many commonly requested certification items, such as brake data and coupling alignments, reducing review time and the number of re-submissions. These data items are published in the Navy Crane Center Submittal Guide and are reviewed on a recurring basis and republished as necessary to keep the data current and accurate. This is an example of our Navy Crane Center's institutionalized philosophy on continuous incremental improvement.

Design Engineering Assistance

The Design Division continues to support Navy, Marine Corps, and other DOD activities when requested. The division regularly provides guidance on equipment selection, cost estimates, procurement schedules, facility design structural and electrical loads, review of facility specifications, review of facility designs, review of crane design submittals, review of crane related certifications, review of rigging and installation plans, on-site review of weight handling procedures, on-site inspection of new and refurbished equipment, on-site review of crane acceptance testing, and technical advice during equipment warranty periods.

The division personnel provided support for the following Naval Nuclear Propulsion Program projects in FY13: multiple bridge cranes for Bettis Atomic Power Laboratory; Under Gallery Deck Cranes for Newport News Shipbuilding; and two mobile cranes for Knolls Atomic Power Laboratory, Kesselring Site Operation.

The division also provided support for MILCON projects in FY13 that included procurement of cranes; such as:

- P-068 Naval Undersea Warfare Center, Newport;
- P-3011, Conventional Munitions Maintenance Facility (CMMF), Anderson Air Force Base, Guam;
- P-075, Aircraft Maintenance Hangar and Apron, Marine Corps Base Camp Lejeune;
- P-112, Launch Test Facility, Naval Air Weapons Station, China Lake;
- P-401, Fuel Pump House, Naval Base Point Loma;
- P-990A, Weight Test Shop, Naval Base Kitsap;
- P-107V, Human Performance Wing, Naval Medical Research Unit, Wright-Patterson AFB; and
- P-136, TACAMO E-6B Hangar, Tinker Air Force Base, Oklahoma City.

The division provided consultation on prospective crane projects in FY13; such as:

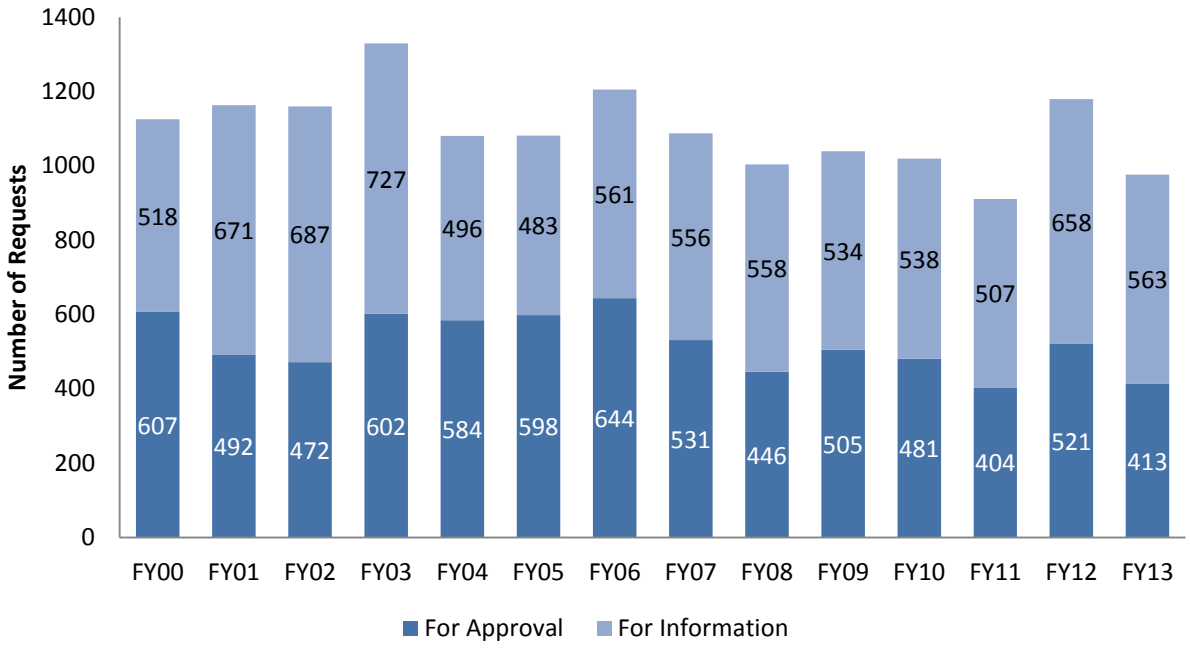
- NAVSUP Weapon Systems Support, Mechanicsburg - evaluation of seven existing bridge cranes;
- Marine Corps Forces Reserve, Boise - acquisition of two maintenance facility bridge cranes and;
- Launch Test Facility, Naval Air Weapons Station, China Lake, ongoing participation/support for lifting requirements during facility operations.

IN-SERVICE ENGINEERING

Crane Alterations

Crane alterations are required for any changes in the original manufacturer's weight handling equipment (WHE) design configuration. They include replacement of parts and components not identical with the original, addition of parts or components not previously part of the equipment, removal of components, and alteration of existing parts and materials. We approve crane alterations to load bearing parts, load controlling parts, and operational safety devices. We also perform a review of locally approved alterations and archive them for future reference. Local approval is permitted for changes to WHE not involving load bearing parts, load controlling parts, or operational safety devices. A thorough engineering technical review of crane alterations is essential to ensure the safety of the equipment. Details of the crane alterations processed in FY13 are available on the Navy Crane Center website located at http://www.navfac.navy.mil/ncc.

CRANE ALTERATION REQUESTS



Configuration Management

Configuration management is required by NAVSEA for category 1 Naval Shipyard cranes obtained through multi-crane procurement contracts since 1981. Prior to submitting a crane alteration for Navy Crane Center approval, the submitting shipyard must propose the alteration to all shipyards with cranes of the same class, provide justification for applicability to all cranes in the class, and provide labor and material

costs estimates. Alterations considered technically advantageous for all cranes of the class are issued by the Navy Crane Center as mandatory alterations. Alterations not considered technically advantageous for the entire class are disapproved (except for site specific compelling cases). Craft 60-ton portal cranes (23 cranes), AmClyde 171.5-ton portal cranes (3 cranes), Westmont 100-ton floating cranes (12 cranes), Westmont 60-ton portal cranes (8 cranes), and Samsung 60-ton (10 cranes) and 151.2-ton (2 cranes) portal cranes are currently designated for configuration management.

During FY13, the Navy Crane Center issued three mandatory crane alterations on Craft 60-ton portal cranes, three on Westmont 60-ton portal cranes, one on Samsung 151.2-ton portal cranes, and two on Samsung 60-ton portal cranes. Details are available on the Navy Crane Center web site.

Crane Safety Advisories and Equipment Deficiency Memoranda

We receive reports of equipment deficiencies, component failures, crane accidents, and other potentially unsafe conditions and practices. When applicable to activities other than the reporting activity, we issue a Crane Safety Advisory (CSA) or an Equipment Deficiency Memorandum (EDM). Generally, a CSA is a directive and often requires feedback from the activities receiving the advisory. An EDM is provided for information and can include deficiencies to non-load bearing/non-load controlling parts. In FY13, four CSAs and three EDMs were issued. Details are available on the Navy Crane Center web site.

Floating Crane Program

The Navy Crane Center assists NAVSEA Program Office for Service Craft (PMS 325) in overseeing the Navy's floating crane program to ensure proper asset allocation. To support the Navy's evolving missions, it is essential to ensure proper equipment is available for utilization.

At the end of FY13, there were 14 floating cranes in the active inventory. Formal requests have been sent to PMS 325 to excess YD-200 and YD-247 (Naval Base Norfolk) from inventory; however, a final disposition has not been made. Of the 14 active floating cranes, one was built prior to 1955 and the remaining 13 were built between 1990 and 1994.

The Navy Crane Center supported SUBASE New London critical mission needs by proactively engaging the NAVSEA program office for service craft (PMS 325) concerning a further extension to YD-246 regular overhaul (ROH) periodicity from the allowance granted per OPNAVINST 4780.6. After verbal approval from PMS 325, Navy Crane Center endorsed a request from NAVFAC MIDLANT to PMS 325 for the extension. A deferral of the dry docking has been granted to the end of 2014.

We provided technical support by investigating remedial actions to return YD-255 at Norfolk Naval Shipyard to service after ultrasonic testing of the barge hull structure revealed areas where the hull plating was reduced. Navy Crane Center supported the evaluation of the hull plating deterioration and developed a plan of action to return the crane to limited service at a reduced capacity until the damaged plating could be restored during the pending ROH, ensuring continued Fleet Readiness support.

We provided oversight and technical support in a joint effort with SUBASE New London and NAVFAC MIDLANT to evaluate problems encountered from installation of new electronic drive controls on YD-250. As a result of troubleshooting efforts, the team identified problems with the OEM's installation. Navy Crane Center will continue to work with NAVFAC MIDLANT in FY14 to support this effort.

We assisted PMS 325 in getting NAVSEA 05, the technical warrant holder for diesel engines aboard service craft, approval to eliminate performing diesel engine inspections in accordance with OPNAVINST 9220.3 as a cost avoidance initiative. The additional diesel engine inspections required by OPNAVINST 9220.3 are redundant to the inspections required by NAVFAC P-307, Appendix C, which are performed on diesel engines on floating cranes and all other cranes with diesel engines. Elimination of this non-added value requirement will yield time savings and cost avoidance to activities by not having to complete a redundant inspection of the diesel engine.

Additional In-Service Engineering Support

At the request of the Military Surface Deployment and Distribution Command's 596th Transportation Brigade, we conducted an evaluation and provided an assessment of the two ship-to-shore container cranes located at Military Ocean Terminal Concord, CA. Our team identified several areas that require attention to improve the overall condition of the cranes.

We supported NAVFAC Far East A-E Design Division with several hoist replacement crane alterations at Naval Air Facility Misawa. The hoists are manufactured in accordance with Japanese standards, so significant effort and communication was required by all stakeholders to ensure that the hoists met all current Navy design and safety requirements. Ultimately, the hoists were approved for Navy use.

We supported NAVFAC MIDLANT with on-site engineering review of the Ancillary Equipment Procedure for "twinning" the booms (operating both independent booms simultaneously) on the luffing cranes at Cheatham Annex.

At the request of Wright Patterson AFB, we assisted the local certifying official in the inspection and test of a 22-Ton bridge crane. This crane had been installed two years ago but had not been inspected and tested by the certifying official. Some changes had to be made to comply with Navy standards before the local certifying official accepted the crane.

We participated on the Code Making Panel 12 of the National Electric Code (NEC) which reviews and evaluates proposals for inclusion in the NEC. On this panel, Navy Crane Center representatives lead evaluations of proposals for Article 610 of the NEC which applies to cranes and hoists. By participating on this panel, we can continue to advance the Navy's interest in weight handling equipment safety as well as look for ways to provide cost avoidance to the Navy. Our work on this panel helped support the publishing of the 2014 revision of the NEC.

Seabee Support

We are dedicated to assisting the Naval Construction Force to improve their weight handling program for their worldwide missions. We hosted the Seabee's Crane Guidance and Policy meeting held at our NCC headquarters. Primary topics of discussion focused on evaluating Seabees at homeports where practicable, reviewing the Seabee's Standard Operating Procedures (SOPs) to ensure that they are up to date with the most recent changes to P-307, and updating to the Seabee website with the most current crane messages and crane SOPs.

ADMINISTRATION

INFORMATION TECHNOLOGY

Migration of NCC Public Website

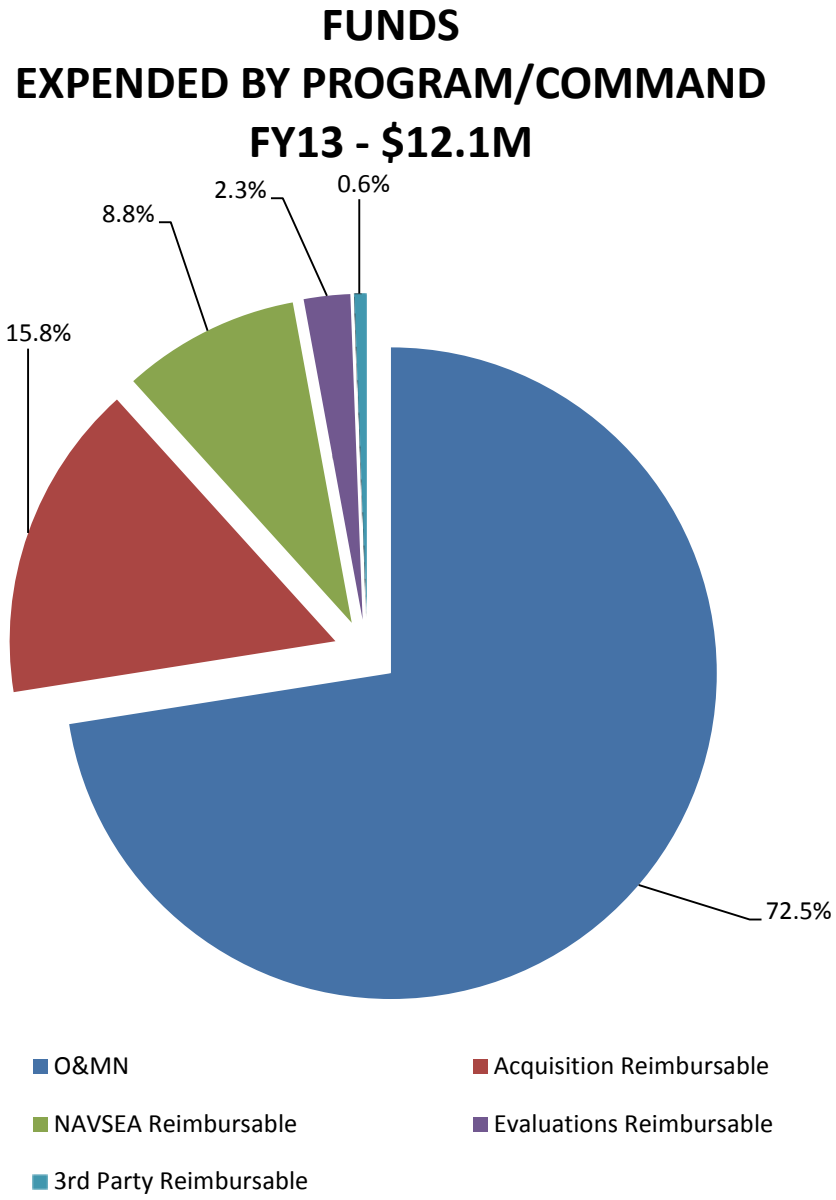
We migrated our NAVFAC NCC public website from the previous NAVFAC NCC Portal to CNIC's Adobe CQ system environment. Our Public Affiars Officer (dual hatted as the NCC Executive Director) and our command webmaster ensured that all public content was migrated and met accuracy, policy, security, and propriety requirements as directed by Navy web and public affairs instruction. This effort coordinated by NAVFAC's Chief Information Office, NITC, command public affairs offices, and webmasters across the enterprise resulted in the site's contemporary look and feel, easier navigation, and better content organization. The new site makes it much easier for the public, business and industry, supported commands, and news media to locate important documents and information. This topic-based site (vice organizationally-based) provides NAVFAC with one corporate look, vice many, and strives to eliminate redundant information. It allows our supported commands to come through a single entry point to find critical information.

The Navy Crane Center section of the public website is located under the "NAVFAC Worldwide" and "Specialty Centers" tabs. We have populated this section with information cleared for public release. This includes general information such as mission, vision, locations, and points of contact; the Director's biography; a showcase for various types of cranes; contact information; and resources such as NAVFAC P-307 information, training information, and publications and reports that provide the global Navy shore activities with valuable information to assist them in improving their weight

handling programs. Our efforts make the web environment an effective tool, both as a means to communicate with our global supported commands and to facilitate quantum improvements in all our business practices.

Navy Marine Corps Intranet (NMCI) Technology Refresh

During FY13, the Navy Crane Center replaced 40 NMCI seats with new computer hardware and software. This upgrade of existing NMCI computers provided increased technological capabilities and performance for our NMCI users. In addition to the hardware upgrade, the software was upgraded to Windows 7 operating system and Microsoft Office 2010 applications.



65-TON OUTDOOR GANTRY CRANE

SAFE AND RELIABLE WEIGHT HANDLING PROGRAMS

AT NAVY SHORE ACTIVITIES

ESSENTIAL ENABLER FOR FLEET READINESS