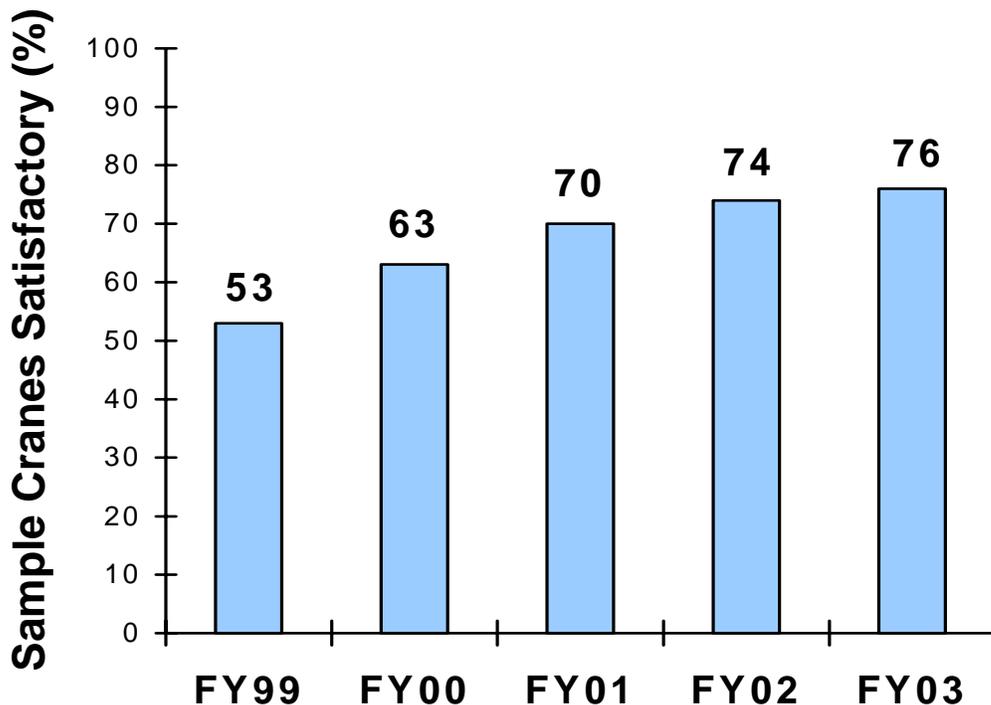


AUDITS

Our auditing of Navy shore activities continued to progress and has proven to be an essential effort to facilitate needed improvements at the activities, as well as reinforce program adherence to the requirements of NAVFAC P-307. Our innovative approach to the auditing component of our mission has contributed to major continuing improvements in the overall condition of the weight handling programs. Our audit teams provide a rigorous compliance review with an immediate follow-up offer and demonstrated willingness to provide assistance in correcting identified problems. One indication of the value added by the audit teams during FY03 was the number of requests from client Commanding Officers for “out of cycle” re-visits. This audit process (along with the integral coaching assistance that occurs during the audit) has continued to improve the safety and reliability of our Navy shore activity weight handling equipment and operations. Another audit innovation from FY02, the regional audit, which minimizes the impact on regional service providers, was further expanded and refined during FY03.

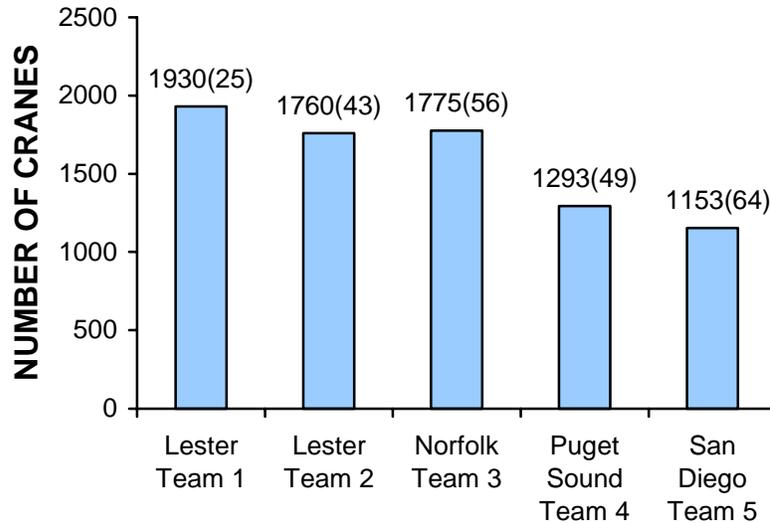
For each of the five audit years since FY99, the condition of the cranes improved as shown below. We interpret this metric as an indicator of the “readiness” of the equipment at the Navy shore activities to meet Fleet weight handling requirements. This continued positive trend is an indicator that our training and audit programs are effective in improving the condition of cranes at Navy shore activities around the globe.

SHORE ACTIVITY AUDIT TREND



Audit teams 1 and 2 operate out of Lester, PA (NCC headquarters). Teams 3, 4, and 5 are located in Portsmouth, VA, Poulsbo, WA, and San Diego, CA, respectively.

CRANES(ACTIVITIES) ASSIGNED EACH AUDIT TEAM



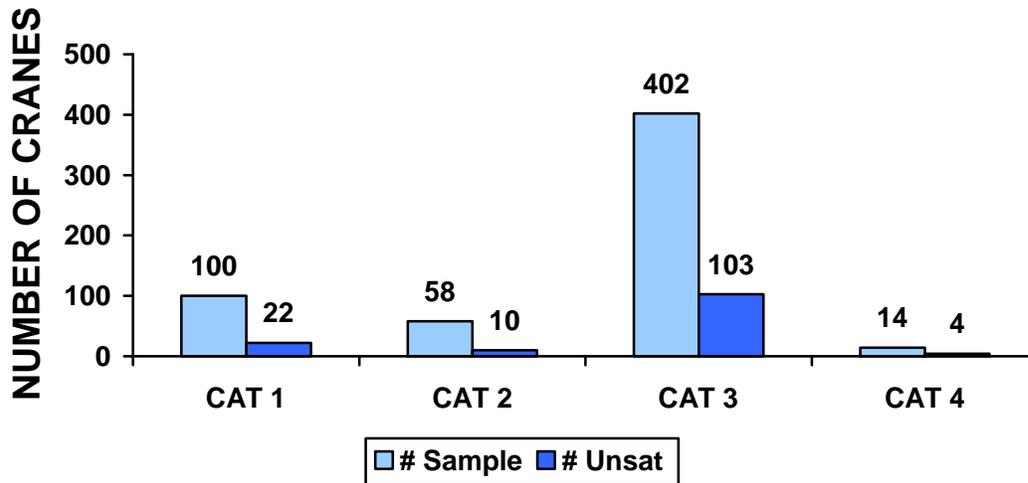
Approximately 237 Navy shore activities and shore-based operating forces own and operate weight handling equipment. During FY03, audit teams completed 131 WHE program audits. Our responsibilities include auditing all activity WHE programs every 2 years at a minimum and suspending unsafe crane operations, if necessary, at any activity.

This year's audit findings and summary data indicate continued incremental program improvement. For those few activities that have failed to improve or slipped back to deficient programs, consideration needs to be given to requesting WHE services from a capable, regional WHE service provider. If this is not feasible, additional support and resources should be requested. As a result of the continuing audit program and the NCC training provided (including the FY03 certifying official training course), all activities have an increased awareness of program requirements. However, additional effort is recommended for on-the-job and advanced specialized training.

Equipment Condition - Cranes

In FY03, the audit teams inspected 574 cranes out of a total inventory of 6,486 for the activities visited. The number of cranes determined to be unsatisfactory continued on a favorable downward trend. Of all cranes sampled 24 percent were unsatisfactory. By contrast, 26 percent were unsatisfactory in FY02, 30 percent in FY01, 37 percent in FY00, and 47 percent in FY99.

AUDIT SAMPLE - CRANE CONDITION



Percent of Unsatisfactory Cranes					
Activity Type	FY99	FY00	FY01	FY02	FY03
Naval Shipyards (SPS Cranes)	19	19	21	10	12
Naval Shipyards (GPS Cranes)	18	16	13	12	12
Navy Public Works Centers	35	34	28	33	23
Naval Surface Warfare Centers	48	29	36	32	22
Naval Air Stations	66	42	42	28	38
All Other Navy Activities	51	36	28	26	25

TOP 10 DEFICIENT CONDITIONS ON CRANES INSPECTED (CATEGORIZED MOST TO LEAST)

1. Brakes not adjusted to manufacturers' specifications (air gaps, spring length, equalization, etc.).
2. Other brake deficiencies (hydraulic actuating cylinder not retracting, oil contaminated frictions, brake splined hub backed off splined shaft leaving partial engagement, glazed friction disc/pads, brake working intermittently and not releasing, brake coil mounting bolts missing or loose).
3. Testing deficiencies (not all components tested, incorrect test loads, mobile cranes not tested in all configurations required by P-307, test paragraphs not performed, e.g., stability, load brakes not tested).
4. Control deficiencies (hoist speed contactors not pulling in, pendant controller lower direction remaining powered after releasing controller button, emergency stop button inoperative, hoist contactors sticking and arcing, collector wheels losing contact, hoist controller wired in backwards, no independent electrical crane disconnect).
5. Structural bolts (bolts installed without using required tapered washers, bent monorail mounting bolts, monorail connector plate bolts missing and/or loose).
6. Miscellaneous mechanical problems (trolley wheel to beam adjustment excessive, trolley wheels are too large for the monorail causing the wheels to contact the I-beam support bolts, trolley wheel flange to I-beam clearance exceeds OEM criteria, trolley drive wheels dryrotted)
7. Certification (repairs were made to the boom without a load test and re-certification as required, hoist and trolley brakes were adjusted and the crane returned to service without load test and certification, hook was removed for NDT and the crane returned to service without a load test and certification as required, repairs were made to the hoist drive coupling without an appropriate proof test, crane certified with a known unapproved alteration to the trolley system).
8. Wire rope/load chain deficiencies (load chains twisted or installed with weld towards sprocket, broken and crushed hoist wires, main hoist wire rope spins up when the boom is extended).
9. Limit switch deficiencies (extend cylinder lever lockout valve inoperative, overload prevention device failed to actuate with an overload test load, hoist secondary limit switch out of adjustment, primary upper and lower hoist limit switches out of adjustment).

10. Unauthorized alterations (alteration was made to the crane monorail without NCC approval, unapproved alteration to the trolley system, welding was accomplished on the boom without NCC alteration approval, extensive alteration was performed on the crane without the required NCC approval, new drive systems provided without NCC approval, unauthorized alteration performed on bridge structure).

In general, the total number and severity of the deficient conditions found by the audit teams decreased over the last audit cycle. As in the previous four fiscal years, brake deficiencies continued to be the most prevalent unsatisfactory condition the audit teams found with 26 percent (down from 32 percent last year). Most of the brake deficiencies were due to settings out of approved specifications. Some of the brakes found out of adjustment were due to either no adjustment range being established by the activity's engineering organization, or the established range being too restrictive.

Load test related deficiencies accounted for nine percent of unsatisfactory cranes. Examples of test directors not following NAVFAC P-307 appendix E test procedures were: not all components tested, incorrect test loads (exceeding or falling short of the required 125 (+5,-0) percent), and test paragraphs not performed (stability, loss of power). A positive indicator of program compliance was only one percent of the audit sample cranes load tested failed the test. These load test failures were due to hydraulic system deficiencies.

Controls and electrical component deficiencies (nine percent), structural bolt deficiencies (eight percent), and mechanical component deficiencies (six percent), were other types of deficiencies most responsible for unsatisfactory cranes.

Equipment Condition - Rigging Gear

In FY03, the audit teams found activity rigging program deficiencies at 85 of the 131 audits completed. In general, however, the overall quality of the Navy's rigging gear program has steadily improved over the last five audit years. By contrast, when the expanded audit program began in FY98, several activities had no rigging program at all.

The audit review included inspecting approximately 8,000 pieces of rigging gear in the Navy's rigging gear inventory. The most significant finding was the increase since FY02 in the number of pieces of deficient rigging gear found available for use. Naval Aviation Depots and Naval Air Stations had the bulk of the deficient rigging gear findings reported in the FY03 audits, followed by Naval Surface and Naval Undersea Warfare Centers, Navy Public Works Centers, and activities located in Japan.

Deficient rigging gear included slings (wire rope, synthetic, and chain), rigging hardware (shackles, eyebolts, etc.), and below the hook lifting devices that were damaged or worn, or in the auditor's opinion met or exceeded the rejection criteria of the applicable NAVFAC P-307, OEM, or ASME B30 requirements and no longer safe for use. The following list provides examples of the most commonly found rigging gear deficiencies:

Common Rigging Gear Deficiencies

Synthetic web slings damaged due to inadequate chafing gear.
Synthetic web slings exposed to caustic chemicals causing hard spots on sling.
Synthetic round sling outer cover torn exposing inner yarns.
Wire rope slings with severed wires.
Wire rope sling eyes severely kinked.
Wire rope slings crushed.
Chain hoist hooks spread due to tip loading.
Chain sling hooks exceeding 10 percent twist requirement.
Shackles bent or spread from overloading.
The shanks of shouldered eyebolts bent due to the shoulder not being fully seated.
Non-shouldered eyebolts bent due to side loading.
Rigging gear that had been altered or modified, e.g. the shank of a 1/2-inch eyebolt was removed and a 5/8-inch bolt welded in its place.

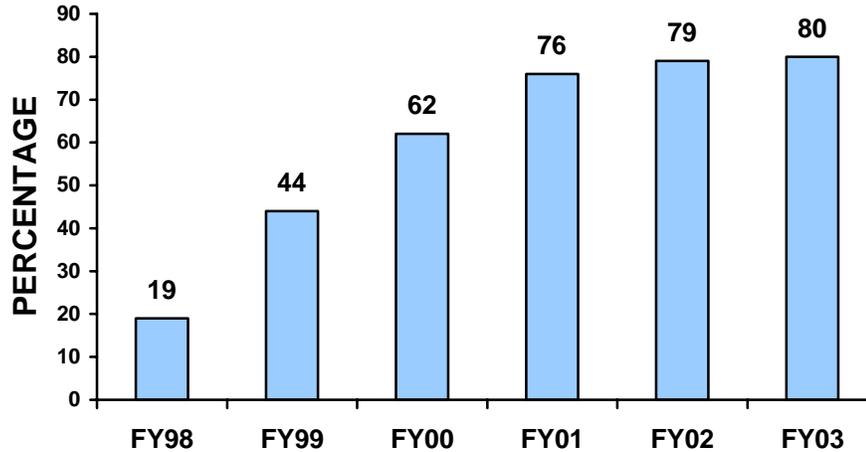
Other prevalent rigging program findings included: active rigging gear not included in a controlled program (41 activities), gear not marked as required by NAVFAC P-307 (25 activities), gear with expired re-inspection due dates (28 activities), multiple leg sling assemblies marked incorrectly (14 activities), and audit team observed unsafe rigging practices (9 activities),

In summary, although the percentage of deficient rigging gear found available for service by the audit teams is low relative to the total inventory, continued emphasis is required commensurate with the gear's importance to safe WHE operations. A concerted effort is required to continue the rigging gear improvements by maintaining a strong command focus on this critical weight handling area.

Activity Program Compliance Progress

We do not formally rate activity weight handling programs. However, at the conclusion of each audit, the audit report letter categorizes the activity's program status into essentially one of two classifications. Either the program is fundamentally sound (includes programs where minor improvements are required), or it is deficient, indicating that it has deficiencies or serious deficiencies requiring significant and immediate action to correct. As a result of the various improvement initiatives and the continuing audit program, a favorable overall trend toward activity compliance has occurred. Of the 131 activity programs audited in FY03, 80 percent were fundamentally sound. This trend has also shown continual improvement in the past five audit years and major improvement from the initiation of the expanded audit program in FY98 when only 19 percent were considered sound.

ACTIVITIES IN COMPLIANCE



Other WHE Program Audit Findings

For the WHE programs that were found to have deficiencies (not in compliance with the requirements of NAVFAC P-307 standards), significant common findings are listed below (in the order of most prevalent and widespread to least).

Program Management

- ◆ Lack of enforcement of the control/surveillance of contractor cranes.
- ◆ No enforcement or violation of lockout/tagout instruction.
- ◆ Not all NCC mandatory training completed (mostly for BOS contractor personnel).
- ◆ No implementing instructions or instructions not current/complete.
- ◆ Unauthorized crane alterations reportable to NCC.
- ◆ Work authorizing documents not issued.
- ◆ Activity using cranes with expired certifications.

Inspection and Certification

- ◆ Crane condition inspection reports and maintenance inspection specification reports not filled out correctly, missing signatures, inspection attributes checked satisfactory when crane is not equipped with the attribute or checked NA when the crane is equipped with the attribute.
- ◆ Incorrect and missing test paragraph numbers on load test certification, mobile cranes not tested in all applicable configurations, cranes tested with incorrect test load.
- ◆ Repair documents do not adequately describe the work done.
- ◆ Hook and nut not identified, hooks painted or welded, incorrect or missing tram measurements.
- ◆ Unsatisfactory condition not identified on MISR.

Crane Operations

- ◆ Operator license files lack essential documentation.
- ◆ Operators conducting unsafe crane operations.
- ◆ Operator's Daily Checklists (ODCL) not filled out properly.
- ◆ Operator's Monthly Checklists (OMCL) not filled out properly.
- ◆ Unlicensed crane operators.

Crane Safety/Accidents

- ◆ Lack of compliance with lockout/tagout procedures.
- ◆ Accident investigations not thorough.

Engineering

- ◆ Changes made without alteration development.
- ◆ Alterations were locally approved that should have been NCC approved.
- ◆ Locally approved alterations not submitted to NCC for information.
- ◆ Repair of equipment deferred without justification.