



# *NAVY CRANE CENTER*



## *NAVY WEIGHT HANDLING*

## *PROGRAM ASHORE*

## *LANTDIV OICC/ROICC*

## *CONFERENCE*

January 2003



# *NAVY CRANE CENTER*



## *History*

- **Chartered by NAVFAC (April 1991)**
- **Assigned Maintenance Management and Oversight of PWC Crane Program (March 1993)**
- **Assigned Navy-Wide Crane Management Responsibilities by NAVFAC (March 1994)**
- **Assigned Service Craft Program Management (June 1995)**
- **Assigned Rigging Management and Training Responsibility (October 1996)**
- **SECNAV Instruction Expanded Scope and Clarified Authority (September 1997)**



# ***NAVY CRANE CENTER***



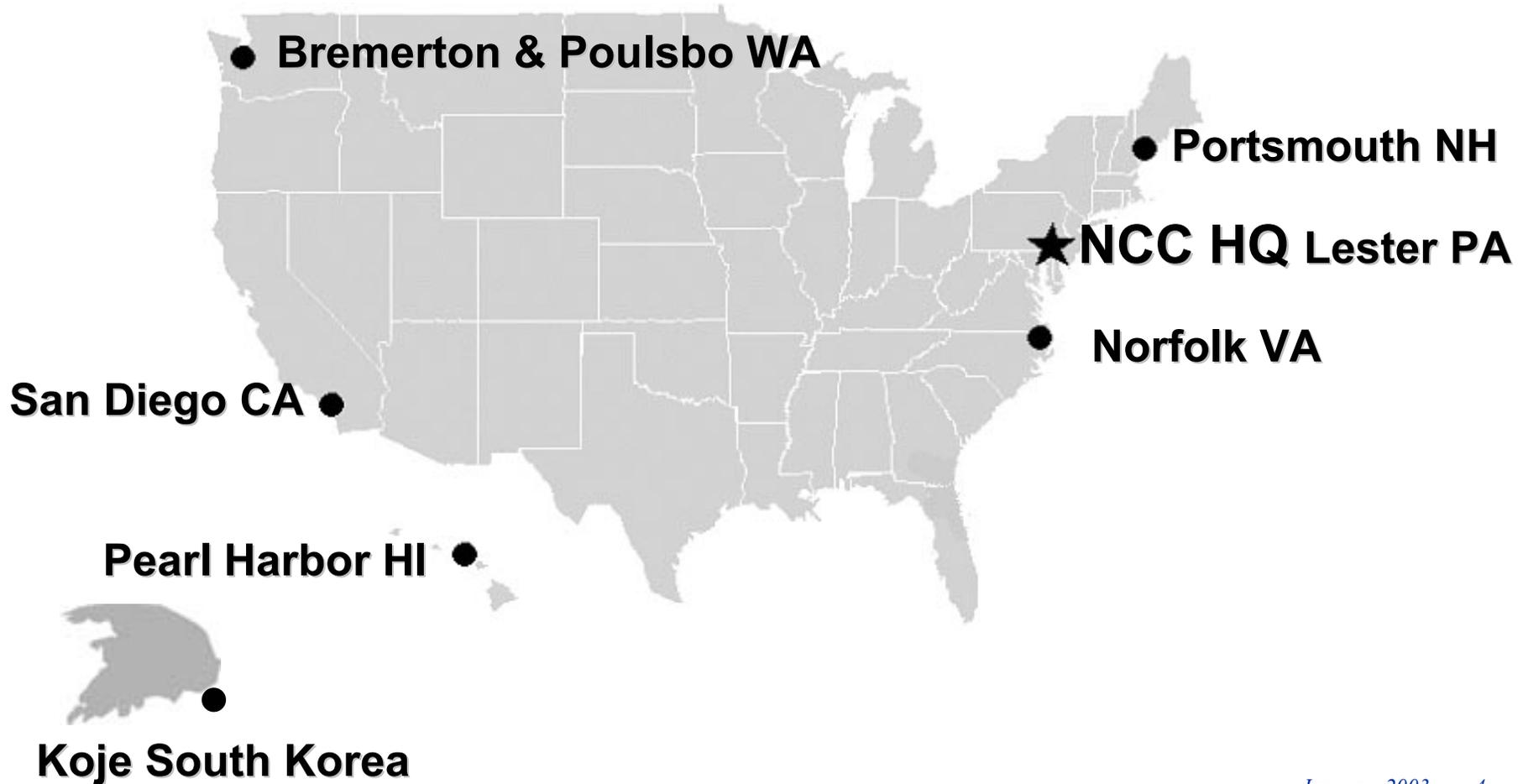
## ***SECNAVINST 11260.2***

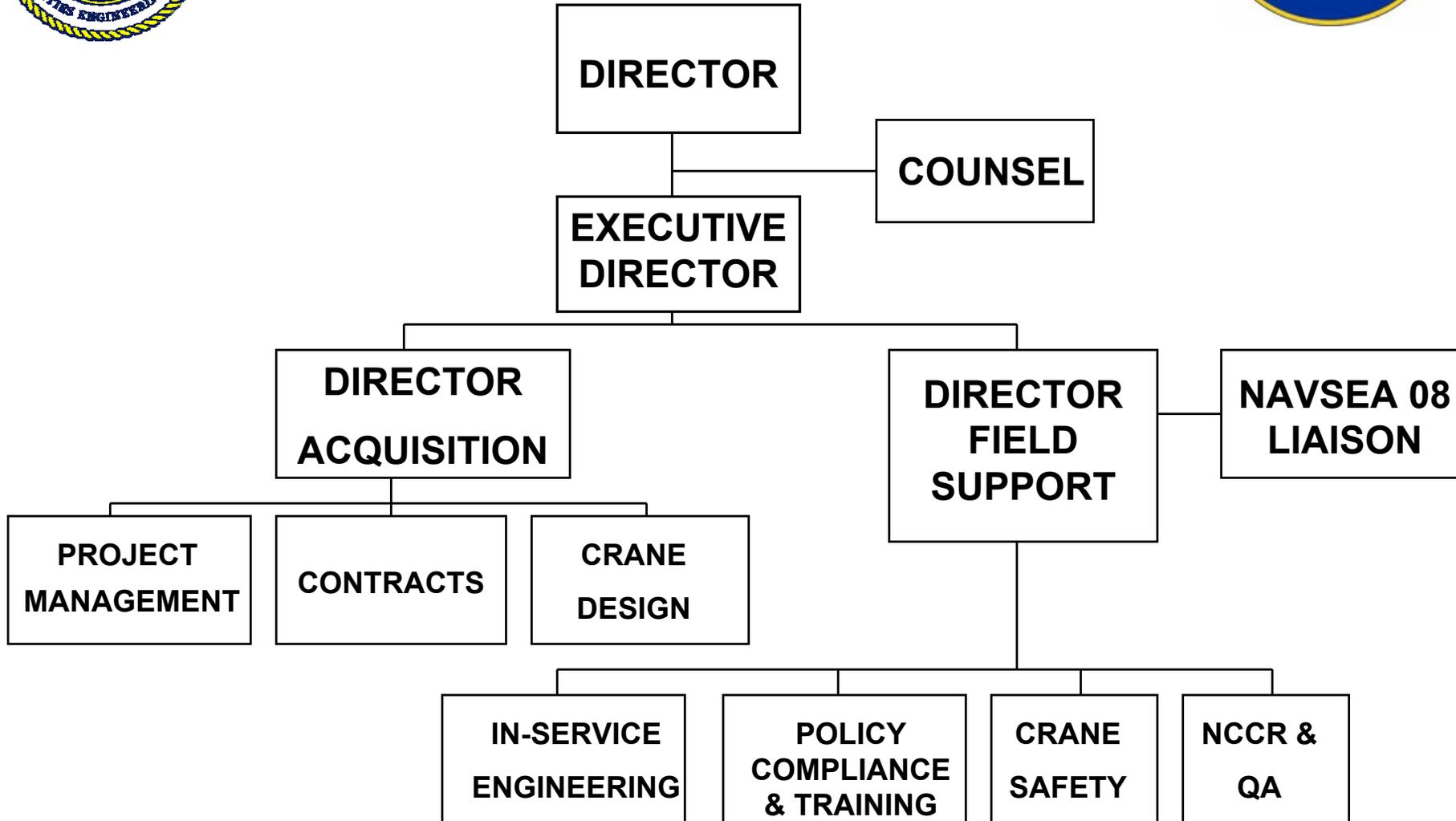
### ***Navy Weight Handling Program for Shore Activities***

- **Assigns NAVFAC Responsibility for Direction and Oversight of All Matters Pertaining to the Navy's WHE Program at Shore Activities**
- **Assigns Systems Command Commanders and Major Claimants the responsibility to Ensure Contractor Crane Operations at Navy Shore Activities Meet OSHA Requirements Identified by Referenced DOD and SECNAV Instructions**



# FIELD OFFICES NCC REPS & AUDIT TEAMS







**2000 – NAS NORTH ISLAND**  
**CONTRACTOR MOBILE CRANE BOOM DROP**



**2000 – NORFOLK NAVAL BASE  
CONTRACTOR FLOATING CRANE BOOM COLLAPSE**



**2001 – NORFOLK NAVAL BASE**  
**100-TON CONTRACTOR FLOATING CRANE BOOM DROP**



**2002 – NORFOLK NAVAL BASE  
CONTRACTOR MOBILE CRANE FELL OFF BARGE**



**2002 NORFOLK NAVAL BASE  
RECOVERED CRANE**

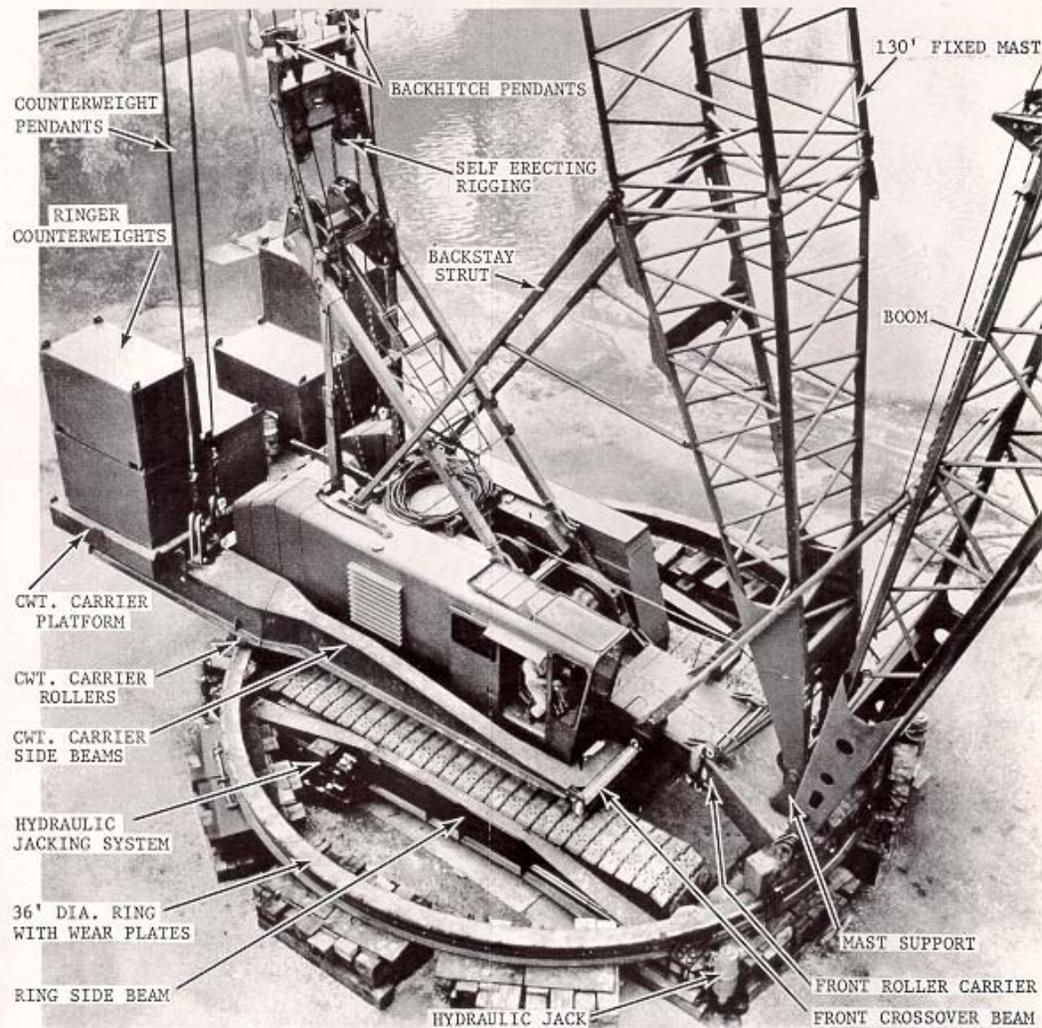


**2002 – PORTSMOUTH NAVAL BASE**

**CONTRACTOR RINGER CRANE OVERTURNED ON BARGE**

*January 2003*

# Typical Ringer Crane

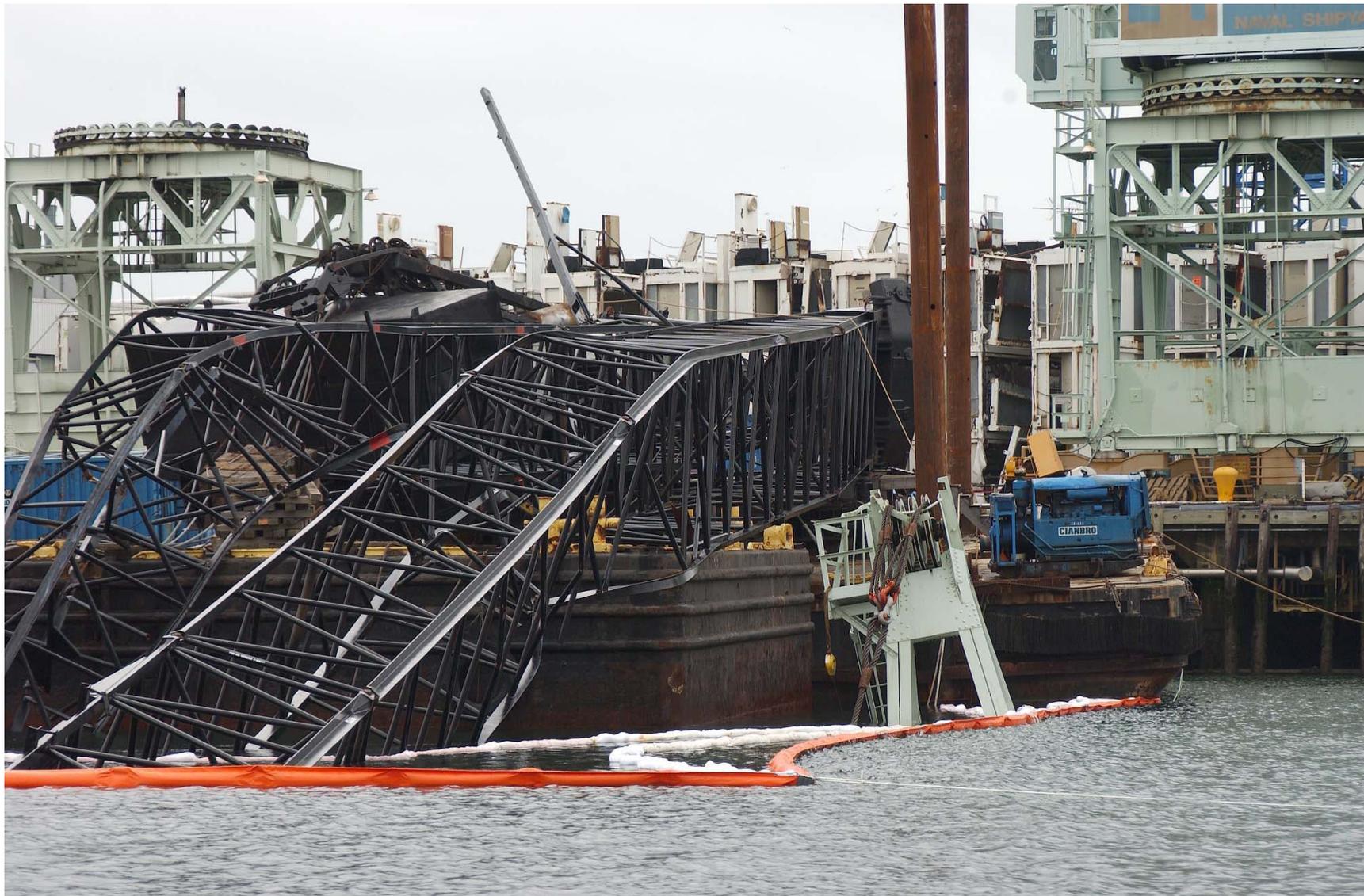


MANITOWOC 4100W Series-3 RINGER® : Note mast self-erecting rigging and wire rope stored on roof.



OPERATORS CAB CRUSHED







# Contractor Operated Mobile Cranes on Barges



- **High Risk Operation**
- **Contracting Officer Responsible for Ensuring Safety**
- **NCC Message R 171842Z DEC 02 ZDK**
- **Navy Crane Center for Information/ Guidance**



# **Contractor Operated Mobile Cranes on Barges**

## **NCC Message**



**R 171842Z DEC 02 ZDK (2)**

- **Barge rated for anticipated loads without excessive**
  - **List**
  - **Trim**
  
- **Load Charts reduced as recommended by the Crane OEM**
  
- **Lifting over 50% of downrated capacity**
  - **Critical Lift (recommended for all NAVFAC Contracts)**
  - **New requirement starting with next rev to P-307 and UGS**
  - **Lift Plan including revised load chart**
  - **P-307, Paragraph 1.7.2.e**



# Contractor Operated Mobile Cranes on Barges (3)



- **Load Indicating Device or Load Moment Indicator**
  - **Recommended for all NAVFAC Contracts**
  - **Required starting with next rev to P-307 and UFGS 01525**
  
- **Third Party Certification for barge mounted mobile cranes**
  - **Recommended for all NAVFAC Contracts**
  - **Required starting with next rev to P-307 and UFGS 01525**



# Barge Stability Calculations From Contractors (4)



- Reviewed by qualified personnel
- Recommended immediately
- Required starting with next rev to P-307 and UFGS



# Compare Information For Consistency and Accuracy (5)



- **Lift Plans**
- **Crane certification data**
- **Barge stability calculations**
- **Load charts**



# Review Contractor Submissions (6)



- **Review lift plans**
  - **Contractor not to deviate from plan**
  - **Contracting officer concurrence required for deviations**
- **Review barge stability calculations**
- **Ask for expert help when needed**



# NAVFAC

## Unified Facilities Guide Spec 01525 (7)



- **Invokes contractor crane requirements of NAVFAC P-307**
- **Intended for use in NAVFAC Contracts**
- **Other contracts may invoke UFGS**
- **<http://www.ccb.org/ufgs/ufgs.htm>**



# Accidents (8)



- **Recovery Plans**

- **Complex**
- **Extensive**
- **Expensive**

- **Contract Delays**

- **Equipment loss or damage**



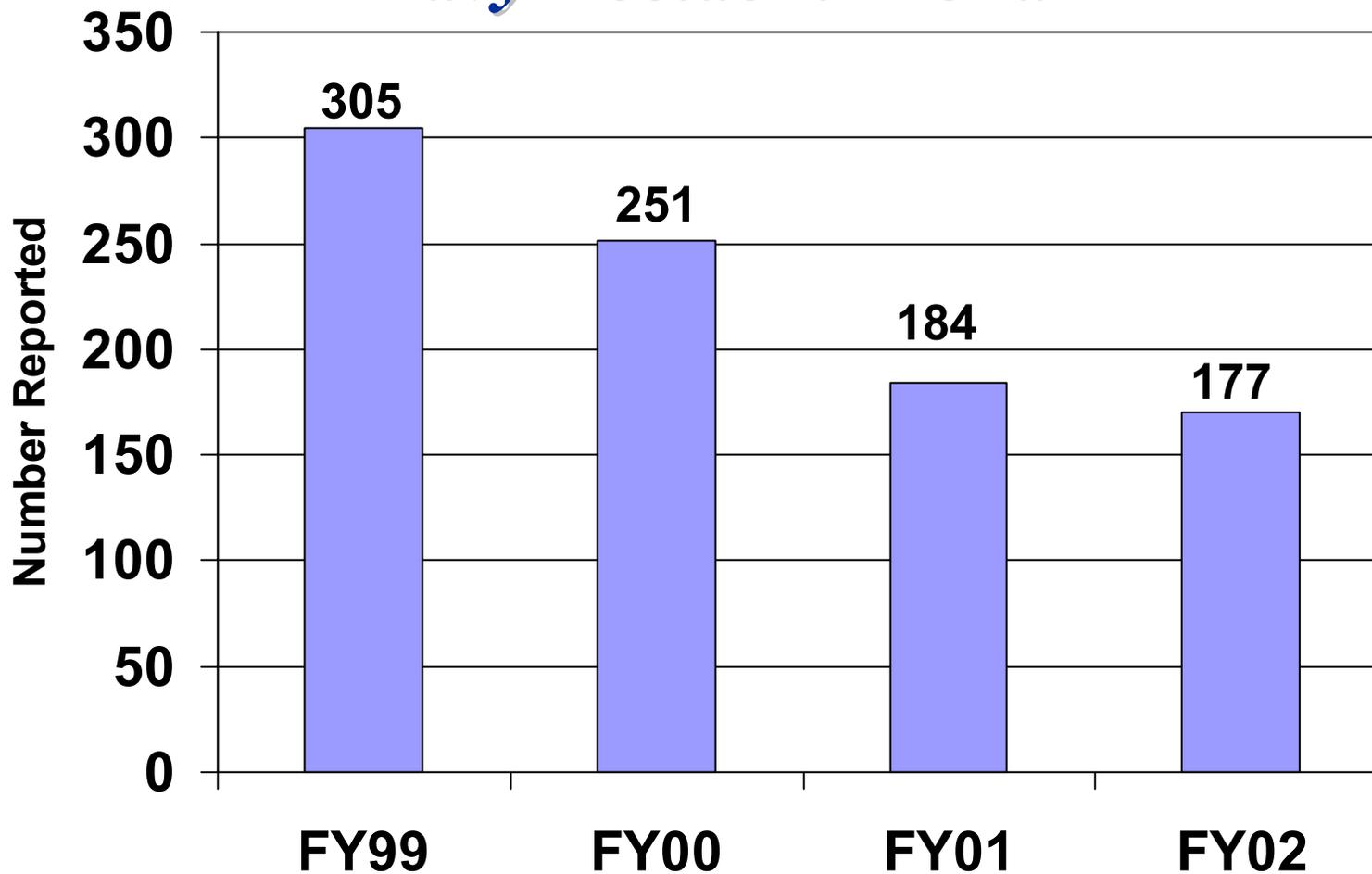
**Crane Working from Barge Must Be Tethered**



# NAVY CRANE CENTER



## *Navy Accident Trend*





# *NAVY CRANE CENTER*



## *Contractor Crane Accidents*

- **Complete Data Not Available**
- **Overall Severity of Contractor Accidents Much Greater Than Navy Accidents**
- **Advance Change Notice to P-307 Issued Nov 2001 Requires Contracting Officers to Forward Reports of All Contractor Weight Handing Accidents to NCC and the Host Activity REGARDLESS OF SEVERITY!!**

Activity	Contract	Crane Type	Accident Type/remakes
<b>FY-02</b>			
Naval Station San Diego	SUPSHIPS	Mobile	dropped load
Mayport Naval Base, Pier - F	SUPSHIPS	Mobile	crane collision
NWS Charleston (army contract)	Army	Mobile	overload
Norfolk Naval Base	ROICC	<b>Mobile on barge</b>	damaged crane -slipped off barge
Naval Postgraduate School	ROICC	Mobile	damage to radar - collision
Naval Station San Diego	ROICC	floater	dropped load
SRF Yokosuka	ROICC	Mobile	damage to building structure - collision
Naval Station San Diego	ROICC	Barge	personal injury
Naval Base Ventura County	ROICC	Pile Driver	personal injury
Naval Station Everett	SUPSHIPS	Mobile	Tipped Crane
SUPSHIP Portsmouth	SUPSHIPS	Mobile	crane collision
Pacific Defense Systems	SUPSHIPS	Mobile	damaged rigging gear
NWS Yorktown	NCC	Portal	overload
SRF Yokosuka	ROICC	Mobile	crane collision
Puget Sound NSY	NCC	portal	load collision
Naval Station Norfolk	ROICC	Barge	boom collapsed
MCB Quantico	ROICC	Mobile	personal injury
Norfolk NSY	NCC	portal	damaged crane
Subase Bangor	Army	Mobile	Tipped Crane
Puget Sound NSY	ROICC	mobile	crane collision
Naval Air Station Brunswick	ROICC	Mobile	overload
<b>FY-03</b>			
Pacific Ship Repair, San Diego	SUPSHIPS	Mobile	dropped load
Portsmouth NSY	ROICC	<b>Mobile on barge</b>	boom collapsed



# **NAVY CRANE CENTER**



## ***Contractor Operated Cranes***

- **Host Activity Commanding Officer Ultimately Responsible**
- **NAVFAC P-307 Minimum Requirements are:**
  - A. Comply with Activity Specific Controls and Applicable ASME Standards;**
  - B. Certificate of Compliance that Crane and Rigging Gear Meet Applicable OSHA Regulations;**
  - C. For Mobile Cranes 25 Tons or More, Proof of Qualification (Union, State License, Third Party Qualification) for Operator Shall be Provided;**
  - D. Certify Crane Operator is Qualified for Operation of the Crane to be Used;**
  - E. Critical Lift Plan for Certain Types of Lifts;**
  - F. Accident Report for All Weight Handling Accidents;**
  - G. For NAVFAC Construction Contracts, COE EM 385-1-1 and NAVFAC Guide Spec NFGS-01525 Apply**



# *NAVY CRANE CENTER*



## *Contracting Officer Responsibilities*

- **Shall Include at Least NAVFAC P-307 Minimum Requirements in All Contracts**
- **Ensure Compliance with Contract Requirements**
- **Provide Oversight of Contractor Crane Operations**
- **Provide Oversight of Contractor Accident Investigations and Corrective Actions**
- **Ensure Accident Reports are Submitted to NCC and Host Activity for All WHE Accidents**

# Certificate of Compliance

<b>CERTIFICATE OF COMPLIANCE</b>	
This certificate shall be signed by an official of the company that provides cranes for any application under this contract. Post a completed certificate on each crane brought onto Navy property.	
PRIME CONTRACTOR /PHONE:	CONTRACT NUMBER:
CRANE SUPPLIER/PHONE: (if different from prime contractor)	CRANE NUMBER: (i.e., ID number)
CRANE MANUFACTURER/TYPE/CAPACITY:	
CRANE OPERATOR'S NAME(S):	
<p>I certify that:</p> <ol style="list-style-type: none"> <li>1. The above noted crane conforms to applicable OSHA regulations (host country regulations for naval activities in foreign countries). The following regulations apply: _____</li> <li>2. That the operators noted above have been trained and are qualified for the operation of the above noted crane.</li> <li>3. That the operators noted above have been trained not to bypass safety devices during lifting operations.</li> </ol>	
COMPANY OFFICIAL SIGNATURE:	DATE:
COMPANY OFFICIAL NAME/TITLE:	
<b>POST ON CRANE</b> (IN CAB OR VEHICLE)	

FIGURE P-1



## CONTRACTOR CRANE OPERATION CHECKLIST

		YES	NO
1	Does the operator know the weight of the load to be lifted?		
2	Is the load to be lifted within the crane manufacturer's rated capacity in its present configuration?		
3	Is the crane level and on firm ground?		
4	Are outriggers required?		
5	If so, are outriggers fully extended and down, and the crane load off the wheels?		
6	If blocking is required, is the entire surface of the outrigger pad supported and is the blocking material of sufficient strength to safely support the loaded outrigger pad?		
7	If outriggers are not used, is the crane rated for on-rubber lifts by the manufacturer's load chart?		
8	Is the swing radius of the crane counterweight clear of people and obstructions and accessible areas within the swing area barricaded to prevent injury or damage?		
9	Has the hook been centered over the load in such a manner to minimize swing?		
10	Is the load well secured and balanced in the sling or lifting device before it is lifted more than a few inches?		
11	Is the lift and swing path clear of obstructions?		
12	If rotation of the load being lifted is hazardous, is a tag or restraint line being used?		
13	Are personnel prevented from standing or passing under a suspended load?		
14	Is the crane operator's attention diverted?		
15	Are proper signals being used at all times?		
16	Do the operations ensure that side loading is prohibited?		
17	Are personnel prevented from riding on a load?		
18	Are start and stop motions in a smooth fluid motion (no sudden acceleration or deceleration)?		
19	If the load is to be suspended and left unattended, have prior planning and written procedures been completed?		
20	If operating near electric power lines, are the rules and guidelines understood and adhered to?		
21	Is the lift a critical lift?		
22	If so, are all regulations understood and check-off sheets initialed and signed off?		
Contractor:		Subcontractor:	
Location:		Date:	



# *NAVY CRANE CENTER*



## *Host Activity Responsibilities*

- **Ensure Contracts Contain Applicable Provisions**
- **Concur with Contracting Officer's Oversight Plan**
- **Ensure Oversight Plan is Carried Out**
- **Oversee Contractor Accident Investigations and Corrective Actions**



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## *Tools Available to ROICC*

- **Contract Safety Requirements, Section 01525N**
- **LANTDIV ROICC Crane QA/QC Procedures Manual**
- **Local Resources**
  - **PWC/PWD**
  - **Shipyard**
  - **NCC**
- **EM 385-1-1**
  - **Activity Hazard Analysis Process**



# NAVY CRANE CENTER



## Formula for Success

**Properly Designed and Maintained Equipment**



+

**Properly Trained Personnel**



+

**Operational Risk Management**

**ORM**

Identify

Supervise

Assess

Implement Controls

Decide



=

**Safe and Reliable Weight Handling Operations**



**Through Continuous Improvement, We Achieve:**

- **Effective Resource Utilization**
- **Fewer Accidents**
- **Improved Fleet Support**



# *Points of Contact*



## **NCC Office At Norfolk Naval Shipyard**

- **NCCR Office:**
  - **Floyd Jolley (757) 396-1439 / Ken Murray (757) 396-1771**
- **Audit Team 3:**
  - **Gary Sharpe (757) 396-0222**
- **In Service Engineering Division:**
  - **Mark Jaxtheimer (757) 396-0227**

## **NCCR Office at Portsmouth Naval Shipyard:**

- **Mark Gray (207) 438-4618**

## **NCC Headquarters:**

- **John Hancher (610) 595-0951**



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*NAVFAC P-307 on the Web:*

*<http://ncc.NAVFAC.navy.mil>*



# *NAVY CRANE CENTER*



*Bottom Line*

*Safety First!*

*Stopping to Ensure Safety Improves Progress!*