

**NAVY TRAINING SYSTEM PLAN**  
**FOR THE**  
**CV/CVN AIRCRAFT LAUNCH**  
**AND RECOVERY EQUIPMENT**

**N88-NTSP-A-50-8509D/D**

**OCTOBER 2001**

## CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT

### EXECUTIVE SUMMARY

This Draft Navy Training System Plan (NTSP) has been developed to identify the life cycle manpower, personnel, and training requirements associated with Aircraft Carrier (CV) and Nuclear Aircraft Carrier (CVN) Aircraft Launch and Recovery Equipment (ALRE). The ALRE addressed in this NTSP include the C 13 Catapult, Mark 7 Jet Blast Deflector (JBD), and the Mark 7 Arresting System. All three systems are in the Operations and Support Phase of the Defense Acquisition System. The Navy Support Date for these systems was reached decades ago.

The C 13 Catapult is designed to launch aircraft from CV and CVN flight decks. The Mark 7 Jet Blast Deflector (JBD) is used aboard CV and CVN flight decks to protect personnel, equipment, and other aircraft from the jet blast created by aircraft in the process of being launched from a catapult. The Mark 7 Arresting Gear is used aboard CV and CVN flight decks to assist aircraft equipped with tail hooks to land in a much shorter distance than would normally be required.

The C 13 Catapult and Mark 7 JBD are operated by Aviation Boatswain's Mate (Equipment) (ABE) personnel with Navy Enlisted Classification (NEC) 7004, *C 13 Mod 1 Catapult Operator*. The Mark 7 Arresting Gear is operated by ABE personnel with NEC 7005, *Mark 7 Arresting Gear Operator*. All shipboard ALRE operators are assigned to the Air Department, V-2 Division.

Organizational and intermediate level maintenance of shipboard ALRE is performed by ABE and Electrician's Mate (EM) personnel assigned to the Air Department, V-2 Division. They are under the supervision of ABEs with NEC 7006, *Aircraft Launch and Recovery Equipment Maintenance Technician*, and EMs with NEC 4672, *Steam Catapult Electrician*. Depot maintenance is typically performed by shipyard personnel during overhaul periods. Between shipyard periods, Voyage Repair Teams provided by the shipyard are available to perform emergency depot level maintenance and other major repairs beyond the capability of the ship.

Current CV and CVN manning is sufficient to operate and maintain the ALRE systems addressed in this NTSP. No change in current manpower requirements is anticipated.

All initial training associated with the systems addressed in this NTSP has been completed. Follow-on training has been established at Naval Air Technical Training Center Detachment, Lakehurst, New Jersey; Naval Air Maintenance Training Unit (NAMTRAU) Norfolk, Virginia; and NAMTRAU North Island, California.

**CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT**

**TABLE OF CONTENTS**

|  | <b>Page</b> |
|--|-------------|
| Executive Summary.....   | i           |
| List of Acronyms.....  | iii         |
| Preface.....   | vi          |
| <br><b>PART I - TECHNICAL PROGRAM DATA</b>   |             |
| A. Nomenclature-Title-Program.....   | I-1         |
| B. Security Classification .....   | I-1         |
| C. Manpower, Personnel, and Training Principals.....   | I-1         |
| D. System Description.....   | I-1         |
| E. Developmental Test and Operational Test.....  | I-2         |
| F. Aircraft and/or Equipment/System/Subsystem Replaced .....                                       | I-2         |
| G. Description of New Development .....  | I-3         |
| H. Concepts .....  | I-13        |
| 1. Operational .....   | I-13        |
| 2. Maintenance.....  | I-13        |
| 3. Manning.....  | I-14        |
| 4. Training .....  | I-15        |
| I. Onboard (In-Service) Training.....  | I-21        |
| J. Logistics Support .....   | I-21        |
| K. Schedules .....   | I-24        |
| L. Government-Furnished Equipment and Contractor-Furnished Equipment<br>Training Requirements..... | I-26        |
| M. Related NTSPs and Other Applicable Documents .....  | I-26        |
| <br><b>PART II - BILLET AND PERSONNEL REQUIREMENTS .....</b>                                       | <br>II-1    |
| <b>PART III - TRAINING REQUIREMENTS.....</b>   | III-1       |
| <b>PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS.....</b>                                      | IV-1        |
| <b>PART V - MPT MILESTONES.....</b>  | V-1         |
| <b>PART VI - DECISION ITEMS/ACTION REQUIRED .....</b>  | VI-1        |
| <b>PART VII - POINTS OF CONTACT .....</b>  | VII-1       |

**CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT**

**LIST OF ACRONYMS**

|               |  |
|---------------|--|
| ABE           | Aviation Boatswain's Mate (Equipment)                      |
| ACDU          | Active Duty  |
| ADMACS        | Aviation Data Management and Control System                |
| ALRCS         | Advanced Launch and Recovery Control System                |
| ALRE          | Aircraft Launch and Recovery Equipment                     |
| ALREMP        | Aircraft Launch and Recovery Equipment Maintenance Program |
| AOB           | Average Onboard  |
| ATIR          | Annual Training Input Requirement                          |
| AZ            | Aviation Maintenance Administrationman                     |
| CFY           | Current Fiscal Year  |
| CIN           | Course Identification Number                               |
| CINCLANTFLT   | Commander in Chief Atlantic Fleet                          |
| CINCPACFLT    | Commander in Chief Pacific Fleet                           |
| CM            | Corrective Maintenance                                     |
| CNET          | Chief of Naval Education and Training                      |
| CNO           | Chief of Naval Operations                                  |
| COMNAVAIRLANT | Commander Naval Air Force Atlantic                         |
| CROV          | Constant Run Out Valve                                     |
| CV            | Aircraft Carrier   |
| CVN           | Nuclear Aircraft Carrier                                   |
| DAS           | Defense Acquisition System                                 |
| DT            | Developmental Test   |
| EM            | Electrician's Mate   |
| FMS           | Foreign Military Sales                                     |
| FY            | Fiscal Year  |
| GFE           | Government Furnished Equipment                             |
| IPB           | Illustrated Parts Breakdown                                |
| ISIS          | Integrated Shipboard Information System                    |
| JBD           | Jet Blast Deflector  |

**CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT**

|                |  |
|----------------|--|
| LSO            | Landing Signal Officer                                   |
| MRC            | Maintenance Requirements Cards                           |
| NA             | Not Applicable   |
| NAMP           | Naval Aviation Maintenance Program                       |
| NAMTRAU        | Naval Air Maintenance Training Unit                      |
| NAS            | Naval Air Station  |
| NATEC          | Naval Air Technical Data and Engineering Service Command |
| NATTC          | Naval Air Technical Training Center                      |
| NAVAIR         | Naval Air Systems Command                                |
| NAVAIRSYSCOM   | Naval Air Systems Command                                |
| NAVEDTRA       | Naval Education and Training                             |
| NAVPERSCOM     | Naval Personnel Command                                  |
| NAVSEASYSYSCOM | Naval Sea Systems Command                                |
| NAWCAD         | Naval Air Warfare Center Aircraft Division               |
| NAWCADLKE      | Naval Air Warfare Center Aircraft Division Lakehurst     |
| NEC            | Navy Enlisted Classification                             |
| NS             | Naval Station  |
| NSA            | National Security Agency                                 |
| NSD            | Navy Support Date  |
| NTSP           | Navy Training System Plan                                |
| OPNAV          | Office of the Chief of Naval Operations                  |
| OPNAVINST      | Office of the Chief of Naval Operations Instruction      |
| OPO            | OPNAV Principal Official                                 |
| OT             | Operational Test   |
| PDA            | Principal Development Activity                           |
| PFY            | Prior Fiscal Year  |
| PM             | Preventive Maintenance                                   |
| PMA            | Program Manager, Air                                     |
| PNEC           | Primary Navy Enlisted Classification                     |
| PQS            | Personnel Qualification Standards                        |
| PSICP          | Program Support Inventory Control Point                  |
| RFOU           | Ready For Operational Use                                |
| RFT            | Ready For Training                                       |
| SNEC           | Secondary Navy Enlisted Classification                   |

**CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT**

|     |                              |
|-----|------------------------------|
| TD  | Training Device              |
| TSA | Training Support Activity    |
| TTE | Technical Training Equipment |

**CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT**

**PREFACE**

This Draft Navy Training System Plan (NTSP) for the Aircraft Carrier (CV) and Nuclear Aircraft Carrier (CVN) Aircraft Launch And Recovery Equipment (ALRE) updates the Draft Aircraft Launch and Recovery Equipment Maintenance Program (ALREMP) NTSP, A-50-8509C/D, dated January 1995, to comply with guidelines set forth in the Navy Training Requirements Documentation Manual, Office of the Chief of Naval Operations (OPNAV) Publication P-751-1-9-97.

In addition to updating this document to the most current format, this iteration removes the outdated maintenance program information and replaces it with C 13 Catapult, Mark 7 Jet Blast Deflector (JBD), and Mark 7 Arresting System information. The C13 Catapult and Mark 7 JBD information does not appear in any previous NTSP. The Mark 7 information was incorporated from an Initial NTSP titled Mark 7 Mod 4 Arresting Gear, dated January 1998.

**PART I - TECHNICAL PROGRAM DATA**

**A. NOMENCLATURE-TITLE-PROGRAM**

**1. Nomenclature-Title-Acronym.** CV/CVN Aircraft Launch and Recovery Equipment (ALRE)

**2. Program Element.** Not Applicable (NA)

**B. SECURITY CLASSIFICATION**

**1. System Characteristics** ..... Unclassified

**2. Capabilities** ..... Unclassified

**3. Functions**..... Unclassified

**C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS**

OPNAV Principal Official (OPO) Program Sponsor..... CNO (N78)

OPO Resource Sponsor ..... CNO (N78)

Developing Agency..... NAVAIRSYSCOM (PMA251)

Training Agency ..... CINCLANTFLT  
CINCPACFLT  
CNET

Training Support Agency ..... NAVAIRSYSCOM (PMA205)

Manpower and Personnel Mission Sponsor ..... CNO (N12)  
NAVPERSCOM (PERS-4, PERS-404)

Director of Naval Training ..... CNO (N79)

**D. SYSTEM DESCRIPTION**

**1. Operational Uses**

**a. C 13 Catapult.** The C 13 Mod 0, Mod 1, and Mod 2 Catapults, hereafter referred to as the C 13 Catapult unless addressing a specific Mod, is designed to launch aircraft from CV and CVN flight decks.

**b. Mark 7 Jet Blast Deflector.** The Mark 7 Mod 0, Mod 1, and Mod 2JBDs, hereafter referred to as the Mark 7 JBD unless addressing a specific Mod, are used aboard CV and CVN flight decks to protect personnel, equipment, and other aircraft from the jet blast created by aircraft in the process of being launched from a catapult.

**c. Mark 7 Arresting System.** The Mark 7 Mod 2, Mod 3, Mod 3+, and Mod 4 Arresting Gear, hereafter referred to as the Mark 7 Arresting Gear unless addressing a specific Mod, is used aboard CV and CVN flight decks to assist aircraft equipped with tail hooks to land in a much shorter distance than would normally be required.

**2. Foreign Military Sales.** Foreign Military Sales (FMS) of ALRE have been made to the French Navy. For specific details, contact the Program Manager, Air (PMA) 251.

## **E. DEVELOPMENTAL TEST AND OPERATIONAL TEST**

**1. C 13 Catapult.** All Developmental Tests (DT) of the C 13 Catapult have been completed. Operational Tests (OT) of the C 13 Catapults aboard new construction CVNs is conducted during sea trials. Sea trials for CVN 76 USS Ronald Reagan are scheduled for Fiscal Year (FY) 03.

**2. Mark 7 Jet Blast Deflector.** All DTs of the Mark 7 JBD have been completed. OTs of the Mark 7 JBD aboard new construction CVNs is conducted during sea trials.

**3. Mark 7 Arresting System.** All DTs of the Mark 7 Arresting Gear have been completed. OTs of the C 13 Mark 7 Arresting Gear aboard new construction CVNs is conducted during sea trials. All required testing to support Mark 7 Arresting Gear Service Changes 427 and 428 has been completed. Testing to support Mark 7 Arresting Gear Service Change 437 is scheduled to begin at Naval Air Warfare Center Aircraft Division Lakehurst (NAWCADLKE), New Jersey, in FY02. When more specific information concerning Service Change 437 testing becomes available it will be included in updates to this NTSP.

## **F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED**

**1. C 13 Catapult.** The C-13 Catapult replaced the Hydraulic Catapult.

**2. Mark 7 Jet Blast Deflector.** The Mark 7 JBD replaced the Mark 4 JBD.

**3. Mark 7 Arresting System.** The Mark 7 Mod 2 replaced the Mark 7 Mod 1 Arresting System.

**a. Mark 7 Arresting Gear Service Change 427.** The purpose of this service change is to remove all Mark 7 Mod 3 arresting engine sheave assemblies utilizing the ball-thrust bearing, all arresting engine sheave assemblies containing a bonded phenolic spacer, and all loose phenolic spacers within the arresting engine. These items will be replaced with sheave assemblies

that employ cylindrical roller-thrust bearings that negate the use of all phenolic spacers within the arresting gear engine. Additionally, the automatic lubrication system, which will deliver a new type of grease, will be modified to reduce the amount of grease required to support the operation of the bearing assemblies. Mark 7 Arresting Gear Service Change 427 is in the Production and Deployment phase of the Defense Acquisition System (DAS).

**b. Mark 7 Arresting Gear Service Change 428.** The purpose of this service change is to replace the present cross-deck pendants and purchase cables with higher-strength cross-deck pendants and purchase cables, thereby increasing the maximum service life limits and expanding the operational capability of the Mark 7 Mod 3 Arresting Gear to meet future aircraft recovery requirements. Mark 7 Arresting Gear Service Change 428 is in the Production and Deployment phase of the DAS.

**Note:** When both Service Change 427 and 428 have been incorporated into Mark 7 Mod 3 Arresting Gear installations, the installations will then be identified as Mark 7 Mod 3+.

**c. Mark 7 Arresting Gear Service Change 437.** The purpose of this service change is to replace the present Constant Run Out Valve (CROV) and Retract Valve as well as their existing control and actuation systems with an improved CROV system that features non-mechanical linkage as the primary means of valve actuation. It will also provide for remote control and monitoring of the arresting gear in the primary operating mode. The control functions will consist of an operator selection of programmed performance based on the known characteristics of the aircraft to be arrested, and a hands-off, closed-loop control during the arrestment that compensates for unforeseen variables to prevent long run-outs and provide a “fail-soft” mode. The final control stage will revert to operator control of the retract phase, and will allow the operator to have proportional control of the retract valve. Mark 7 Arresting Gear Change 437 is in the System Development and Demonstration phase of the DAS.

## **G. DESCRIPTION OF NEW DEVELOPMENT**

### **1. Functional Description**

**a. C 13 Catapult.** The C 13 Mod 0, Mod 1, and Mod 2 Catapults are steam powered, direct drive, flush deck type catapults that consist of two rows of slotted cylinders side-by-side in a trough under the flight deck. Pistons within these cylinders connect to the shuttle that tows the aircraft. Major catapult systems include:

**(1) Steam System.** The Steam System delivers the steam required to operate the catapult from the ship’s engineering spaces. The steam system portion of the C 13 Catapult is under the technical cognizance of the Naval Sea Systems Command (NAVSEASYS COM) and is operated and maintained by ships’ engineering department personnel.

**(2) Launch Engine System.** The Launch Engine System consists of most of the major components that are used in applying steam to the launch engine pistons during the launch sequence and stopping the launch pistons at the completion of the launch.

**(3) Retraction Engine and Drive System.** The Retraction Engine and Drive System are used to return the launch pistons and the shuttle to the ready position after each launch.

**(4) Hydraulic System.** The Hydraulic System supplies hydraulic fluid for the operation of the hydraulic components of the catapult.

**(5) Lubrication System.** The Lubrication System provides a means of lubricating the launch engine cylinders and sealing strips prior to firing the catapult and also provides lubrication at other times by way of manual lubrication pushbuttons on the monitor console and charging panel.

**(6) Bridle Tensioning System.** The Bridle Tensioning System provides a means of tightly connecting the aircraft to be launched to the catapult shuttle.

**(7) Control System.** The Control System consists of the panels, lights, and switches that are used to operate the catapult throughout the various sequential operational phases.

**b. Mark 7 Jet Blast Deflector.** The Mark 7 Mod 0, Mod 1, and Mod 2 JBDs consist of a series of water-cooled panels that are mounted flush with the flight deck. The panels are raised and lowered by hydraulic cylinders connected to mechanical operating gear. Seawater supplied from the ship's firemain is continuously circulated through the modules of each panel assembly to prevent overheating. The JBD is normally operated from either a deckedge using the deckedge control panel or from the flight deck using a portable chest pack control assembly. Major components of the Mark 7 JBD include the operating gear assembly, water-cooled panel assembly, and electrical control assembly along with associated water, hydraulic, and electrical infrastructure.

**(1) Operating Gear Assembly.** The Operating Gear Assembly provides the means of physically raising and lowering the JBD panels. Two hydraulic cylinders are connected to a trunnion shaft by means of a crank assembly. Movement of the hydraulic cylinder piston rod rotates the trunnion shaft. Rotation of the trunnion shaft extends or retracts the linkage to raise or lower the JBD panels. Removable panel supports can be attached to the operating gear and flight deck to lock panels in the raised position for maintenance or if access to the area beneath the panels is required.

**(2) Water-Cooled Panel Assembly.** Pairs of water-cooled panels are connected to sets of operating gear. The panel assemblies can be raised independently or simultaneously with other panels within the same installation. By connecting a pair of panels to a

set of operation gear, one cylinder can raise or lower a pair of panels in the event of a failure to the other cylinder.

**(3) Electrical Control Assembly.** All JBD assemblies are controlled by means of individual control panels. Each control panel and chest pack has its own electrical installation and each is operated independently of the other. An auxiliary control panel and transfer switch located below decks is provided for emergency operating purposes. The auxiliary control panel is identical to the deckedge panel. The deckedge and auxiliary control panels are provided with a cover and padlock to protect the panels and prevent operation by unauthorized personnel. Transfer switches direct electrical power from the power source to the deckedge control panel, auxiliary control panel, or the chest pack as applicable.

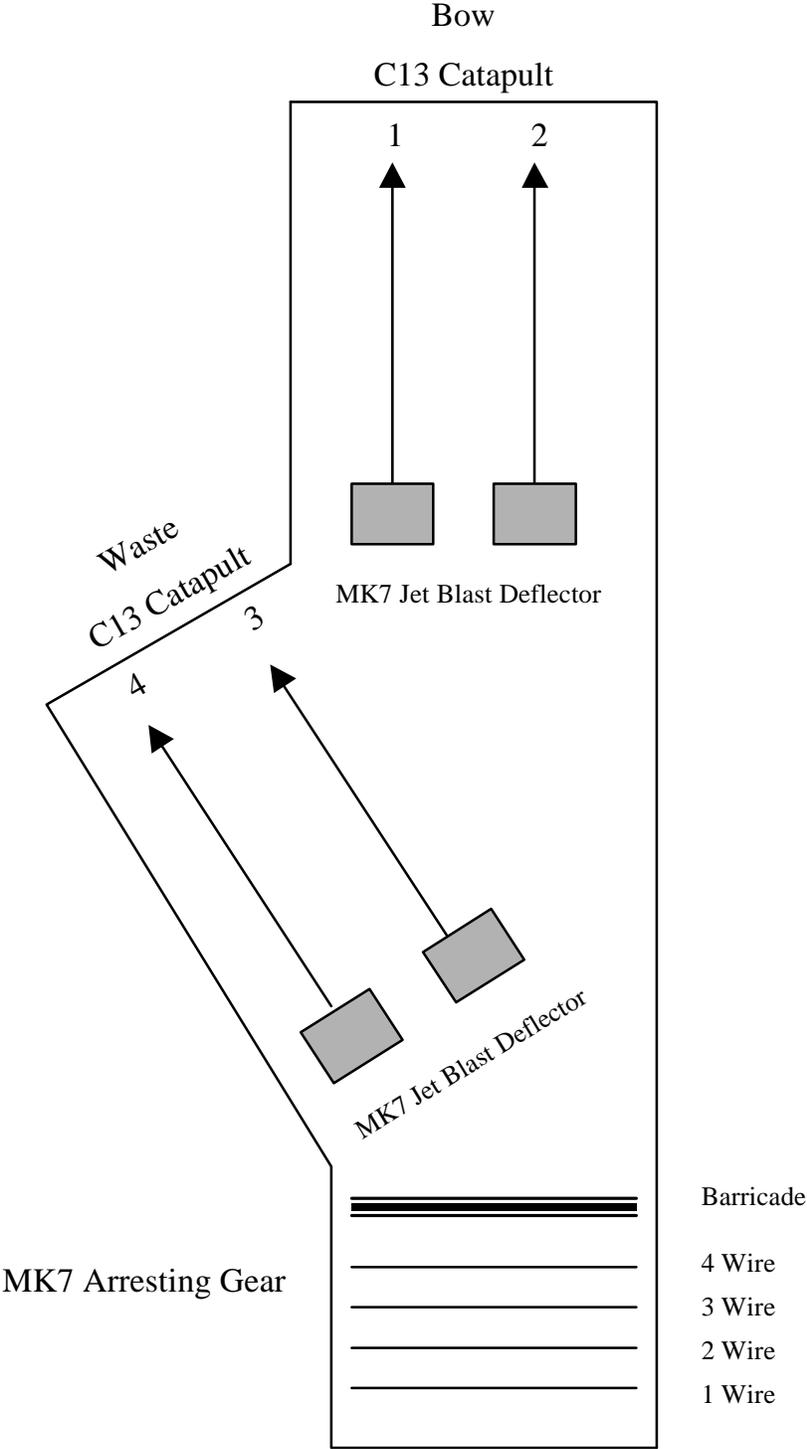
**c. Mark 7 Arresting System.** The Mark 7 Mod 2, Mod 3, and Mod 4 arresting systems operate in the following manner. The tail hook of an incoming aircraft engages a deck pendant. Deck pendants are single wire rope cables that span the flight deck. The deck pendants are tensioned across and suspended two-to-five-inches above the flight deck by leaf spring wire supports. The engagement enables the force of the aircraft's forward motion to be transferred to a purchase cable. The purchase cable, a length of cable attached to a set of moveable and a set of fixed sheaves on the arresting engine, forces the crosshead toward the fixed sheaves forcing fluid from the arresting cylinder to the accumulator and anchor dampers. The flow of the moving fluid is metered through the control valve to the accumulator. The metered flow of the fluid through the control valve is a pre-determined factor that controls the pressure in the cylinder and thus provides a restraining force on the cable system, absorbing the force of the engaged aircraft. At the completion of the arrestment, the aircraft's tail hook is disengaged from the deck pendant and the deck pendant is returned to its normal ready position. This is accomplished by operating the retracting valve, which forces fluid to flow from the accumulator back into the engine cylinder, moving the crosshead away from the fixed sheaves returning to its ready position.

Arrestment by deck pendant represents the normal method of arresting aircraft. During emergencies, an arrestment barricade is used. The barricade consists of one-time-use webbing stretched across the flight deck between the port and starboard barricade stanchions. During a barricade arrestment, the wings of the incoming aircraft engage the barricade webbing which transmits the arresting force to the barricade engine in a similar manner as the deck pendant does via the purchase cable system during a normal arrestment.

**2. Physical Description.** Figure I-1 depicts the typical flight deck locations of the ALRE addressed in this NTSP.

**a. C 13 Catapult.** Due to the complex design and large quantity of components that make-up a C 13 Catapult, no attempt has been made to include a detailed physical description in this NTSP. An in-depth physical description of all components associated with the C 13 Catapult can be found in the C 13 Operation and Maintenance Manuals, NAVAIR 51-15ABB-4.1, 4.2, and 4.3.

**Typical ALRE Flight Deck Locations**



**Figure I-1: ALRE Typical Flight Deck Locations**

**(1) Steam System.** The catapult steam system consists of the steam accumulator, accumulator fill and blow-down valves, trough warm-up system, steam smothering system, and associated valves and piping.

**(2) Launch Engine System.** The major components of the Launch Engine System are the launch valve assembly, launch valve hydraulic lock valve panel, launch valve control valve, exhaust valve hydraulic lock valve panel, keeper valve, launch engine cylinders, cylinder covers, sealing strip tensioner installation, sealing strip anchor and guide, launch engine pistons, water brake installation, steam cutoff switch, water brake piping and pressure switch installation, and trough system installation.

**(3) Retraction Engine and Drive System.** The major components that comprise the Retraction Engine and Drive System are the drum assembly, hydraulic motor, screw and traverse carriage installation, retraction engine dump valve, vent valve panel, retraction engine manifold, cable tensioner assembly, sheaves, cables, and grab.

**(4) Hydraulic System.** The Hydraulic System consists of a main hydraulic accumulator, three main hydraulic circulating pumps (each driven by an electric motor), a boost pump, gravity pump, suction line filter, a 90-gallon auxiliary tank, and associated valves, switches, and piping. The auxiliary tank, circulating pumps, and the gravity pump are under the cognizance of NAVSEASYSKOM and are operated and maintained by ships' Engineering Department personnel.

**(5) Lubrication System.** The major components of the Lubrication System include a lubrication pump and motor, a lubrication tank of approximately 200-gallon capacity, an air-operated lubrication control valve, an air solenoid valve, and a metering pump.

**(6) Bridle Tensioning System.** The major components of the Bridle Tensioning System include a bridle tensioner control valve, a bridle tensioner cylinder mounted directly below the nose landing gear track and in line with the aft trough covers, and a pressure regulator.

**(7) Control System.** Major components comprising the Control System are the catapult officer control console, monitor control console, deckedge control panel, deckedge signal box, military/combat power deck lights, deck suspend lights, water brake control panel, and central junction box.

### C 13 CATAPULT CONFIGURATION MATRIX

| ACTIVITY                | C 13 CATAPULT LOCATION |            |            |            |
|-------------------------|------------------------|------------|------------|------------|
|                         | CATAPULT 1             | CATAPULT 2 | CATAPULT 3 | CATAPULT 4 |
| CV 63 USS Kitty Hawk    | Mod 0                  | Mod 0      | Mod 0      | Mod 0      |
| CV 64 USS Constellation | Mod 0                  | Mod 0      | Mod 0      | Mod 0      |

| ACTIVITY                        | C 13 CATAPULT LOCATION |            |            |            |
|---------------------------------|------------------------|------------|------------|------------|
|                                 | CATAPULT 1             | CATAPULT 2 | CATAPULT 3 | CATAPULT 4 |
| CVN 65 USS Enterprise           | Mod 0                  | Mod 0      | Mod 0      | Mod 0      |
| CV 67 USS John F. Kennedy       | Mod 0                  | Mod 0      | Mod 0      | Mod 0      |
| CVN 68 USS Nimitz               | Mod 1                  | Mod 1      | Mod 1      | Mod 1      |
| CVN 69 USS Dwight D. Eisenhower | Mod 1                  | Mod 1      | Mod 1      | Mod 1      |
| CVN 70 USS Carl Vinson          | Mod 1                  | Mod 1      | Mod 1      | Mod 1      |
| CVN 71 USS Theodore Roosevelt   | Mod 1                  | Mod 1      | Mod 1      | Mod 1      |
| CVN 72 USS Abraham Lincoln      | Mod 2                  | Mod 2      | Mod 2      | Mod 2      |
| CVN 73 USS George Washington    | Mod 2                  | Mod 2      | Mod 2      | Mod 2      |
| CVN 74 USS John C. Stennis      | Mod 2                  | Mod 2      | Mod 2      | Mod 2      |
| CVN 75 USS Harry S. Truman      | Mod 2                  | Mod 2      | Mod 2      | Mod 2      |
| CVN 76 USS Ronald Reagan        | Mod 2                  | Mod 2      | Mod 2      | Mod 2      |

**b. Mark 7 Jet Blast Deflector**

**(1) Operating Gear Assembly.** A set of operating gears consists of two hydraulic cylinders, three bearing blocks, one trunnion shaft, two crank assemblies, and four linkage assemblies. Each linkage assembly consists of an arm, strut, and eye. The linkage for two JBD panels is connected to a single trunnion shaft. The trunnion shaft is mounted and supported by the three bearing block assemblies. Magnets attached to the linkage arm and eye assemblies actuate limit switches mounted on brackets on the side of the operating gear deck cutouts to indicate the position of the panel assemblies.

**(2) Water-Cooled Panel Assembly.** A Water-Cooled Panel Assembly is a reinforced, ribbed-based structure containing water inlet and outlet piping. Each panel assembly contains 14 tube assemblies, seven removable module assemblies, and attached hinge and lift fittings. The Mark 7 Mod 0 and Mod 2 JBDs are comprised of six Water-Cooled Panel Assemblies with three sets of operating gear, while the Mark 7 Mod 1 JBD has four panels and two sets of operating gear. The Mark 7 Mod 2 JBD contains two additional side-plate cooling panels.

**(3) Electrical Control Assembly.** Major components of the Electrical Control Assembly include the deckedge and auxiliary control panels, chest pack portable control assembly, deckedge and chest pack transfer switch, and cutout switch.

**(a) Deckedge and Auxiliary Control Panels.** The Deckedge and Auxiliary Control Panels are identical in design except for the nameplate. The Mark 7 Mod 0 and

Mod 2 control panels contain nine switches while the Mark 7 Mod 1 control panel contains seven switches. Each panel also contains four fuse lights, a power-on light switch, two indicator lights, cooling water and hydraulic fluid gage shutoff valves, and a cooling water and hydraulic pressure gage.

**(b) Chest Pack Portable Control Assembly.** The chest pack for the Mark 7 Mod 0 and the Mod 2 contains three individual raise and lower toggle switches, an “all” raise and lower toggle switch, an emergency cooling water toggle switch, a yellow water indicator light, and red and green indicator lights. Electrical power is provided by an umbilical cable connected to a receptacle on the rear of the chest pack and to another receptacle located in the deck. A chest pack is not used to operate Mark 7 Mod 1 JBDs.

**(c) Deckedge and Chest Pack Transfer Switches.** The deckedge transfer switch is a rotary switch with a rotary dial. The face is identified with two “deckedge” and two “auxiliary” positions. The only difference between the deckedge transfer switch and the chest pack transfer switch is the dial face. The face of the chest pack transfer switch dial face is identified with two “portable” and two “auxiliary” positions.

**(d) Cutout Switch.** The Cutout Switch, which provides power to the control panel or the chest pack, is a rotary type switch with a rotary dial. The switch is located near the auxiliary control panel.

**(4) Configuration.** Current fleet Mark 7 JBD configurations are as follows:

**MARK 7 JET BLAST DEFLECTOR CONFIGURATION MATRIX**

| ACTIVITY                        | MARK 7 JET BLAST DEFLECTOR LOCATION |            |            |            |
|---------------------------------|-------------------------------------|------------|------------|------------|
|                                 | CATAPULT 1                          | CATAPULT 2 | CATAPULT 3 | CATAPULT 4 |
| CV 63 USS Kitty Hawk            | Mod 0                               | Mod 0      | Mod 2      | Mod 1      |
| CV 64 USS Constellation         | Mod 0                               | Mod 0      | Mod 2      | Mod 1      |
| CVN 65 USS Enterprise           | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |
| CV 67 USS John F. Kennedy       | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |
| CVN 68 USS Nimitz               | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |
| CVN 69 USS Dwight D. Eisenhower | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |
| CVN 70 USS Carl Vinson          | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |
| CVN 71 USS Theodore Roosevelt   | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |
| CVN 72 USS Abraham Lincoln      | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |
| CVN 73 USS George Washington    | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |

| ACTIVITY                   | MARK 7 JET BLAST DEFLECTOR LOCATION |            |            |            |
|----------------------------|-------------------------------------|------------|------------|------------|
|                            | CATAPULT 1                          | CATAPULT 2 | CATAPULT 3 | CATAPULT 4 |
| CVN 74 USS John C. Stennis | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |
| CVN 75 USS Harry S. Truman | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |
| CVN 76 USS Ronald Reagan   | Mod 0                               | Mod 0      | Mod 0      | Mod 1      |

**c. Mark 7 Arresting System**

**(1) Physical characteristics.** The physical characteristics for major components of the Mark 7 Mod 2, Mod 3, and Mod 4 arresting systems are as follows:

**MARK 7 ARRESTING SYSTEM PHYSICAL CHARACTERISTICS**

| SPECIFICATION                                 | MOD 2                  | MOD 3                  | MOD 4                  |
|---|------------------------|------------------------|------------------------|
| <b>Maximum Energy Absorption</b>              | 38,000,000 foot pounds | 47,500,000 foot pounds | 47,500,000 foot pounds |
| <b>Service run out</b>                        | 310 feet               | 340 feet               | 340 feet               |
| <b>Cables:</b>                                |                        |                        |                        |
| Deck Pendant Breaking Strength                | 188,000 pounds         | 205,000 pounds         | 205,000 pounds         |
| Purchase Cable Break Strength                 | 195,000 pounds         | 215,000 pounds         | 215,000 pounds         |
| Revvig Ratio                                  | 18 to 1                | 18 to 1                | 18 to 1                |
| Deck Pendant Diameter                         | 1-3/8 inches           | 1-7/16 inches          | 1-7/16 inches          |
| Purchase Cable Diameter                       | 1-7/16 inches          | 1-7/16 inches          | 1-7/16 inches          |
| <b>Damper Sheave Crosshead Service Stroke</b> | 6 feet 6 ½ inches      | 10 feet                | 15 feet                |
| <b>Arresting Engine:</b>                      |                        |                        |                        |
| Length  | 50 feet                | 50 feet                | 50 feet                |
| Weight  | 37 tons                | 43 tons                | 43 tons                |
| Hydraulic Fluid Capacity (Without Cooler)     | 320 gallons            | 380 gallons            | 380 gallons            |
| Hydraulic Fluid Capacity (With Cooler)        | 500 gallons            | 560 gallons            | 560 gallons            |

| <b>SPECIFICATION</b>                      | <b>MOD 2</b>                 | <b>MOD 3</b>                 | <b>MOD 4</b>                 |
|---|------------------------------|------------------------------|------------------------------|
| Type of coolant                           | Sea water                    | Sea water                    | Sea water                    |
| Ram Diameter                              | 18.495 inches                | 20.000 inches                | 20.000 inches                |
| Effective Ram Area                        | 268.8 square inches          | 314.16 square inches         | 314.16 square inches         |
| Length of Two-Block Stroke                | 186 inches                   | 195 inches                   | 195 inches                   |
| Pendant Engine Service Stroke Length      | 171 inches                   | 183 inches                   | 183 inches                   |
| Barricade Engine Service Stroke Length    | 150 inches                   | 160 inches                   | 160 inches                   |
| Accumulator Working Pressure              | 400 pounds per square inch   | 400 pounds per square inch   | 400 pounds per square inch   |
| Accumulator Maximum Pressure              | 650 pounds per square inch   | 650 pounds per square inch   | 650 pounds per square inch   |
| Length of Deck Pendant Run out            | 321 feet (to tail hook)      | 345 feet (to tail hook)      | 345 feet (to tail hook)      |
| Length of Barrier Run out                 | 359 feet (to nose wheel)     | 388 feet (to nose wheel)     | 388 feet (to nose wheel)     |
| Cable Anchor Damper Piston Service Stroke | 10 feet                      | 15 feet 8 inches             | 15 feet 8 inches             |
| Piston Area of Cable Anchor Damper Piston | 6.107 square inches          | 7.85 square inches           | 7.85 square inches           |
| Barricade Power Pack                      |                              |                              |                              |
| Hydraulic Fluid Capacity                  | 125 gallons                  | 125 gallons                  | 125 gallons                  |
| Working Pressure                          | 1,500 pounds per square inch | 1,500 pounds per square inch | 1,500 pounds per square inch |
| Pressure Switch Minimum Pressure          | 1,250 pounds per square inch | 1,250 pounds per square inch | 1,250 pounds per square inch |
| Relief Valve Maximum Pressure             | 1,750 pounds per square inch | 1,750 pounds per square inch | 1,750 pounds per square inch |

(2) **Configuration.** Current fleet Mark 7 arresting gear configurations are as follows:

## MARK 7 ARRESTING GEAR CONFIGURATION MATRIX

| ACTIVITY                        | MARK 7 ARRESTING GEAR LOCATION |        |        |        |           |
|---------------------------------|--------------------------------|--------|--------|--------|-----------|
|                                 | WIRE 1                         | WIRE 2 | WIRE 3 | WIRE 4 | BARRICADE |
| CV 63 USS Kitty Hawk            | Mod 3                          | Mod 3  | Mod 3  | Mod 3  | Mod 2     |
| CV 64 USS Constellation         | Mod 3                          | Mod 3  | Mod 3  | Mod 3  | Mod 2     |
| CVN 65 USS Enterprise           | Mod 3                          | Mod 3  | Mod 3  | Mod 3  | Mod 2     |
| CV 67 USS John F. Kennedy       | Mod 3                          | Mod 3  | Mod 3  | Mod 3  | Mod 3     |
| CVN 68 USS Nimitz               | Mod 3+                         | Mod 3+ | Mod 3+ | Mod 3+ | Mod 3+    |
| CVN 69 USS Dwight D. Eisenhower | Mod 3+                         | Mod 3+ | Mod 3+ | Mod 3+ | Mod 3+    |
| CVN 70 USS Carl Vinson          | Mod 3                          | Mod 3  | Mod 3  | Mod 3  | Mod 3     |
| CVN 71 USS Theodore Roosevelt   | Mod 3                          | Mod 3  | Mod 3  | Mod 3  | Mod 3     |
| CVN 72 USS Abraham Lincoln      | Mod 3                          | Mod 3  | Mod 3  | Mod 3  | Mod 3     |
| CVN 73 USS George Washington    | Mod 3                          | Mod 3  | Mod 3  | Mod 3  | Mod 3     |
| CVN 74 USS John C. Stennis      | Mod 3+                         | Mod 3+ | Mod 3+ | Mod 3+ | Mod 3+    |
| CVN 75 USS Harry S. Truman      | Mod 3                          | Mod 3  | Mod 3  | Mod 3  | Mod 3     |
| CVN 76 USS Ronald Reagan        | Mod 4                          | Mod 4  | Mod 4  | NA     | Mod 4     |

**3. New Development Introduction.** All catapults, JBDs, and arresting gear systems are installed as new equipment during ships construction.

### 4. Significant Interfaces

**a. C 13 Catapult.** The C 13 Catapult interfaces with the Aviation Data Management and Control System (ADMACS), Integrated Shipboard Information System (ISIS), Advanced Launch and Recovery Control System (ALRCS), and the ships' steam generating and electrical power distribution systems.

**b. Mark 7 Jet Blast Deflector.** The Mark 7 JBD interfaces with ADMACS, ISIS, ALRCS, the ships' fire main system, and the ships' electrical power distribution system.

**c. Mark 7 Arresting System.** The Mark 7 Arresting System interfaces with ADMACS, ISIS, ALRCS, and the ships' electrical power distribution system.

### 5. New Features, Configurations, or Material. NA

## H. CONCEPTS

**1. Operational Concept.** The C 13 Catapult and Mark 7 JBD are operated by Aviation Boatswain's Mate (Equipment) (ABE) personnel with Navy Enlisted Classifications (NEC) 7004, *C 13 Mod 1 Catapult Operator*. ABE personnel with NEC 7005, *Mark-7 Arresting Gear Operator*, operate the Mark 7 Arresting Gear. All shipboard ALRE operators are assigned to the ships' Air Department, V-2 Division. The C 13 Catapult, Mark 7 JBD, and Mark 7 Arresting Gear are manned at all times during Flight Quarters.

**2. Maintenance Concept.** General direction and guidance regarding the ALRE maintenance concept are provided by the ALREMP, Office of the Chief of Naval Operations Instruction (OPNAVINST) 4790.15. The ALREMP prescribes three levels of maintenance: organizational, intermediate, and depot.

**a. Organizational.** Organizational level maintenance of shipboard ALRE is performed by ABE and Electrician's Mate (EM) personnel assigned to the Air Department, V-2 Division, under the supervision of ABEs with NEC 7006, *Aircraft Launch and Recovery Maintenance Technician*, and EMs with NEC 4672, *Steam Catapult Electrician*. Organizational maintenance includes both Preventive Maintenance (PM) and Corrective Maintenance (CM).

**(1) Preventive Maintenance.** PM consists of periodic inspections and servicing in response to a scheduled requirement as prescribed in applicable Maintenance Requirements Cards (MRC). PM actions include corrosion inspections, cleaning, lubricating, adjusting, and calibration.

**(2) Corrective Maintenance.** CM consists of troubleshooting and removal and replacement of defective components using Peculiar Support Equipment and Common Support Equipment.

**b. Intermediate.** Aboard CV and CVN ships, the Air Department, V-2 Division, is considered an afloat intermediate maintenance activity for ALRE systems. The same ABE and EM personnel that perform organizational level maintenance on ALRE systems perform intermediate maintenance. Intermediate maintenance consists of inspections, test, modification, repair and replacement of damaged or unserviceable equipment, assemblies, and components, calibration, manufacture of selected parts, and incorporation of service changes within the ships' capability. Carrier and Field Service Unit representatives are available to assist with specific maintenance problems on an as requested basis via the Type Commander. A list of special tools and equipment required to perform intermediate maintenance is included in element IV.A.1.

**c. Depot.** Depot level maintenance consists of incorporation of major service changes and overhaul. Depot maintenance is normally performed by shipyard personnel during overhaul periods. Typically, CV and CVN type ships undergo overhaul periods every six to ten years. Voyage Repair Teams provided by the shipyard are available to perform depot level and other major maintenance requirements occurring between shipyard periods.

**d. Interim Maintenance.** Since the Navy Support Date (NSD) for the ALRE addressed in this NTSP was achieved decades ago, no requirements exist for interim maintenance.

**e. Life Cycle Maintenance Plan.** Life cycle maintenance of ALRE includes PM and CM as well as long term rework. CV and CVN type ships typically undergo shipyard overhaul every eight to twelve years. Rework of ALRE will be accomplished during these periods.

**3. Manning Concept.** Manning requirements for CV and CVN Air Department, V-2 Divisions are solely based on watch station requirements. Current manning is at a steady state and will not be affected by the service changes addressed in this NTSP. No new NECs will be required to support the service changes.

**a. Proposed Utilization.** All shipboard ALRE is manned and fully operational during Flight Quarters. Average utilization is six months per year.

**b. Recommended Qualitative and Quantitative Manpower Requirements.** The current qualitative and quantitative manpower requirements to support ALRE for a typical Air Department V-2 Division are depicted in the table below. All billets are active duty. Slight variations of billet numbers will occur at individual commands.

| <b>RATING</b> | <b>NEC</b> | <b>BILLETS</b> |
|---------------|------------|----------------|
| ABCM          | 0000       | 1              |
| ABECS         | 7004       | 1              |
| ABECS         | 7005       | 1              |
| ABECS         | 7006       | 1              |
| ABEC          | 7004       | 2              |
| ABEC          | 7005       | 2              |
| ABEC          | 7006       | 1              |
| ABE1          | 7004       | 8              |
| ABE1          | 7005       | 4              |
| ABE1          | 7006       | 2              |
| ABE2          | 7004       | 13             |
| ABE2          | 7005       | 7              |
| ABE2          | 0000       | 3              |
| ABE3          | 0000       | 42             |
| ABEAN         | 0000       | 27             |

| <b>RATING</b> | <b>NEC</b> | <b>BILLETS</b> |
|---------------|------------|----------------|
| AN            | 0000       | 88             |
| EMC           | 4672       | 1              |
| EM1           | 4672       | 1              |
| EM2           | 4672       | 2              |
| EM3           | 4672       | 1              |
| AZ1           | 0000       | 1              |
| AZ3           | 0000       | 1              |
| AZAN          | 0000       | 1              |

**4. Training Concept.** The overall objective of the training program is to provide a ready supply of skilled catapult and arresting gear operators and maintenance technicians to the fleet. All initial training associated with the systems addressed in this NTSP has been completed. Follow-on training has been established at Naval Air Technical Training Center (NATTC) Detachment, Lakehurst, New Jersey; Naval Air Maintenance Training Unit (NAMTRAU) Norfolk, Virginia; and NAMTRAU North Island, California.

**a. Initial Training. NA**

**b. Follow-on Training**

**Title ..... CV Catapult Electrician**

CIN ..... C-604-2013

Model Manager ... NATTC DET Lakehurst

Description ..... This course provides training to EM personnel, including:

- Arresting Gear and Deck Accessories
- Catapults
- Electrical Schematics
- General Maintenance and Upkeep
- Safety
- Quality Assurance
- Technical Publications

Upon completion, the student will be able to maintain and repair the catapult and arresting gear electrical systems aboard CV and CVN ships without supervision.

Location ..... NATTC DET Lakehurst

Length ..... 26 days  
 RFT date ..... Currently available  
 Skill identifier ..... NEC 4672  
 TTE/TD ..... Refer to elements IV.A.1 and IV.A.2 of this NTSP  
 Prerequisites .....  
 ° EM Rating  
 ° E-4 and above  
 ° Ultimate duty assignment to an aircraft carrier

**Title ..... Aircraft Launch and Recovery Equipment C 13  
 Catapult Class C1**

CIN ..... C-604-2014  
 Model Manager ... NATTC DET Lakehurst  
 Description ..... This course provides training to ABE personnel, including:  
 ° Type C MK-13 MOD 0 Catapult Operation  
 ° Type C MK-13 MOD 1 Catapult Operation  
 ° Type C MK-13 MOD 2 Catapult Operation  
 Upon completion, the student will be able operate Type C MK-13 series catapults aboard CV and CVN type ships with supervision.  
 Location ..... NATTC DET Lakehurst  
 Length ..... 44 days  
 RFT date ..... Currently available  
 Skill identifier ..... NEC 7004  
 TTE/TD ..... Refer to elements IV.A.1 and IV.A.2 of this NTSP  
 Prerequisites .....  
 ° ABE Rating  
 ° E-4 through E-9  
 ° C-604-2012, Aviation Boatswain's Mate Launch and Recovery Equipment Class A1

**Title .....** **Aircraft Launch and Recovery Equipment Maintenance Technician**

CIN ..... C-604-2028

Model Manager ... NATTC DET Lakehurst

Description ..... This course provides training to ABE personnel, including:

- ALRE Maintenance Administration
- Maintenance Programs and Practices
- Safety
- General Maintenance and Upkeep
- Hydraulic System Maintenance
- JBDs
- Aircraft Recovery Equipment
- Barricades

Upon completion, the student will be able to maintain and repair the catapult and arresting gear aboard CV and CVN ships without supervision.

Location ..... NATTC DET Lakehurst

Length ..... 88 days

RFT date ..... Currently available

Skill identifier ..... NEC 7006

TTE/TD ..... Refer to elements IV.A.1 and IV.A.2 of this NTSP

Prerequisites ..... ◦ ABE  
 ◦ E-5 through E-9  
 ◦ NEC 7004 or 7005

**Title .....** **Aircraft Launch and Recovery Equipment Arresting Gear**

CIN ..... C-604-2029

Model Manager ... NATTC DET Lakehurst

Description ..... This course provides training to ABE personnel, including:

- MK-7 MOD 2 Arresting Gear Operation
- MK-7 MOD 3 Arresting Gear Operation
- MK-7 MOD 4 Arresting Gear Operation

Upon completion, the student will be able to operate MK-7 series arresting gear aboard CV and CVN type ships under supervision.

Location ..... NATTC DET Lakehurst  
 Length ..... 24 days  
 RFT date ..... Currently available  
 Skill identifier ..... NEC 7005  
 TTE/TD ..... Refer to elements IV.A.1 and IV.A.2 of this NTSP  
 Prerequisites ..... ° ABE Rating  
    ° E-4  
    ° C-604-2012, Aviation Boatswain's Mate Launch and  
    Recovery Equipment Class A1

**Title ..... Aircraft Launch and Recovery Equipment  
 Maintenance Officer**

CIN ..... C-604-2011  
 Model Manager ... NATTC DET Lakehurst  
 Description ..... This course provides training to prospective ALRE  
 Maintenance Officers, including:  
    ° ALRE Maintenance Management  
    ° ALRE Records, Reports, and Logs  
    ° Supply Procedures  
    ° Catapult Systems  
    ° Landing Gear Systems  
    ° Visual Landing Aid Systems  
    ° Technical Library  
 Upon completion, the student will be able to perform as the  
 ALRE Maintenance Officer aboard CV and CVN ships  
 without supervision.

Location ..... NATTC DET Lakehurst  
 Length ..... 38 days  
 RFT date ..... Currently available  
 Skill identifier ..... None  
 TTE/TD ..... Refer to elements IV.A.1 and IV.A.2 of this NTSP  
 Prerequisites ..... ° Officers with orders to ALRE Maintenance Officer billets  
    or  
    ° ABE Rating  
    ° E-7 through E-9

**Title .....** **Aircraft Launch and Recovery Equipment Refresher**

CIN ..... C-604-2016

Model Manager ... NAMTRAU North Island

Description ..... This course provides training to Personnel Qualification Standards (PQS) qualified ABE personnel including:

- Type C MK-13 Series Catapult Operation

Upon completion, the student will be able operate MK-13 series catapults aboard CV and CVN type ships under supervision.

Location ..... ◦ NAMTRAU Norfolk  
◦ NAMTRAU North Island

Length ..... 11 days

RFT date ..... Currently available

Skill identifier ..... None

TTE/TD ..... Refer to elements IV.A.1 and IV.A.2 of this NTSP

Prerequisite ..... ◦ ABE Rating  
◦ E-5 through E-9

**Title .....** **Aircraft Launch and Recovery Equipment Quality Assurance Administration**

CIN ..... C-604-2017

Model Manager ... NAMTRAU Norfolk

Description ..... This course provides training to ABE, EM, and Aviation Maintenance Administrationman (AZ) personnel, including:

- ALRE Quality Assurance Program Overview
- Quality Assurance Instructions and Directives
- Quality Assurance Record Maintenance
- Quality Assurance Reports
- Monitoring Procedures

Upon completion, the student will be able to administer and maintain a Quality Assurance Program aboard CV and CVN ships under all conditions of readiness under limited supervision.

Location ..... ° NAMTRAU Norfolk  
 ° NAMTRAU North Island

Length ..... 5 days

RFT date ..... Currently available

Skill identifier ..... None

TTE/TD ..... Refer to elements IV.A.1 and IV.A.2 of this NTSP

Prerequisites ..... ° AZ Rating assigned to V2 Division  
 ° E-4 through E-6  
 or  
 ° ABE and EM Ratings  
 ° E-6 through E-9

**Title ..... Aircraft Launch and Recovery Equipment - Catapult Basic**

CIN ..... C-604-2024

Model Manager ... NAMTRAU North Island

Description ..... This course provides training to ABE, EM, and AZ personnel, including:

- ° Basic Catapult System
- ° Catapult Operational Phases
- ° Component Identification
- ° Basic Troubleshooting
- ° Operation and Maintenance Publications
- ° Safety Precautions

Upon completion, the student will be able to perform basic catapult maintenance functions aboard CV and CVN ships with close supervision.

Location ..... ° NAMTRAU Norfolk  
 ° NAMTRAU North Island

Length ..... 10 days

RFT date ..... Currently available

Skill identifier ..... None

TTE/TD ..... Refer to elements IV.A.1 and IV.A.2 of this NTSP

Prerequisites ..... ABE Rating (may be non-designated Airman striking for ABE rating)

**Title .....** **Aircraft Launch and Recovery Equipment Arresting Gear**

**CIN .....** C-604-2025

**Model Manager ...** NAMTRAU North Island

**Description .....** This course provides aircraft launch and recovery personnel with sufficient knowledge of the Mark-7 Arresting Gear System, including:

- Operational Phases
- Component Identification
- Basic Troubleshooting
- Safety Precautions

Upon completion, the student will be able to perform arresting gear maintenance under close supervision.

**Location .....** ◦ NAMTRAU Norfolk  
◦ NAMTRAU North Island

**Length .....** 9 days

**RFT date .....** Currently available

**Skill identifier .....** None

**TTE/TD .....** Refer to elements IV.A.1 and IV.A.2 of this NTSP

**Prerequisites .....** ◦ ABE Rating (May be non-designated Airman striking for ABE rating)

**(3) Student Profiles**

| <b>SKILL IDENTIFIER</b> | <b>PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS</b>  |
|-------------------------|---|
| ABE                     | ◦ C-604-2012, Aviation Boatswain’s Mate Aircraft Launching and Recovery Equipment Class A1  |
| EM                      | ◦ A-662-0159, Electrician’s Mate “A” School<br>◦ A-651-0118, Engineering Common Core<br>◦ A-651-0119, Engineering Electrical Core |
| AZ                      | ◦ C-555-2010, Aviation Maintenance Administrationman (AZ) Class A1  |

**(4) Training Pipelines.** No new training pipelines, tracks, or courses will be required to support current CV and CVN ALRE.

**I. ONBOARD (IN-SERVICE) TRAINING**

**1. Proficiency or Other Training Organic to the New Development**

**a. Maintenance Training Improvement Program.** NA

**b. Aviation Maintenance Training Continuum System.** NA

**2. Personnel Qualification Standards.** The following PQS are applicable to personnel assigned to the V-2 Division of CV and CVN type ships.

| TITLE                                     | NAVEDTRA NUMBER | MODEL MANAGER |
|---|-----------------|---------------|
| Flight Deck Familiarization               | 43426-0         | COMNAVAIRLANT |
| Steam Catapult/Arresting Gear Electrician | 43426-25B       | COMNAVAIRLANT |
| Air Department Steam Catapult             | 43426-5D        | COMNAVAIRLANT |
| Air Department Mk 7 Arresting Gear        | 43426-6C        | COMNAVAIRLANT |

**3. Other Onboard or In-Service Training Packages.** NA

**J. LOGISTICS SUPPORT**

**1. Manufacturer and Contract Numbers**

**a. Existing CV and CVN Type Ships.** The C 13 Catapult, Mark 7 JBD, and Mark 7 Arresting Systems were incorporated into existing CV and CVN type ships during construction by the builder, Newport News Shipbuilding, Newport News, Virginia. Mark 7 Arresting Systems C 13 are installed in CV and CVN type ships during construction.

**b. New Construction CVN Type Ship.** The USS Ronald Reagan is currently under construction.

| <b>CONTRACT NUMBER</b> | <b>MANUFACTURER</b>       | <b>ADDRESS</b>                                   |
|------------------------|---------------------------|--|
| N00024-95-C-2106       | Newport News Shipbuilding | 4101 Washington Avenue<br>Newport News, VA 23607 |

**b. Service Changes**

**(1) Mark 7 Arresting Gear Service Change 427**

| <b>CONTRACT NUMBER</b> | <b>MANUFACTURER</b>                    | <b>ADDRESS</b>                           |
|------------------------|--|--|
| N68335-98-C-0106       | Advanced Development and Manufacturing | 325 Soundview Road<br>Guilford, CT 06437 |

**(2) Mark 7 Arresting Gear Service Change 428**

| <b>CONTRACT NUMBER</b> | <b>MANUFACTURER</b>           | <b>ADDRESS</b>  |
|------------------------|-------------------------------|---|
| N68335-98-C-0086       | Paulsen Wire Rope Corporation | 880 South 2 <sup>nd</sup> Street<br>Sunbury, PA 17801 |

**(3) Mark 7 Arresting Gear Service Change 437.** Since service change 437 is still in the early stages of the DAS process, no manufacturer has been selected.

**2. Program Documentation.** Since the systems addressed in this NTSP are all integral components of CV and CVN construction, all program documentation concerning these systems is included as part of the individual ship's new construction work package.

**3. Technical Data Plan.** Technical documents such as Technical Manuals, Illustrated Parts Breakdown, MRCs, and Planned Maintenance System for the ALRE addressed in this NTSP have all been published and distributed under the cognizance of the Naval Air Technical Data and Engineering Service Command (NATEC), San Diego, California. Refer to element IV.B.3 for a list of technical documents required to support ALRE training.

**4. Test Sets, Tools, and Test Equipment.** All Test Sets, Tools, and Test Equipment required to support the ALRE addressed in this NTSP have been delivered. Refer to element IV.A.1 for a list of Test Sets, Tools, and Test Equipment required to support ALRE Training.

**5. Repair Parts.** The Material Support Dates for the ALRE systems discussed in this NTSP were reached in the 1960s. Program Support Inventory Control Point (PSICP) Mechanicsville, Pennsylvania, manages all spare and repair parts for ALRE. All fleet requirements for repair parts are requisitioned through normal supply channels.

**6. Human Systems Integration.** NA

## **K. SCHEDULES**

### **1. Installation and Delivery Schedules**

**a. C 13 Catapult.** The C 13 Catapult is installed in CV and CVN type ships during construction. The USS Ronald Reagan is currently under construction.

**b. Mark 7 Jet Blast Deflector.** Mark 7 JBDs are installed in CV and CVN type ships during construction. The USS Ronald Reagan is currently under construction.

**c. Mark 7 Arresting System.** Mark 7 Arresting Systems are installed in CV and CVN type ships during construction. The USS Ronald Reagan is currently under construction.

**(1) Mark 7 Arresting Gear Service Change 427.** Service Change 427 was installed aboard CVN 74 USS John C. Stennis in FY00 and aboard CVN 68 USS Nimitz and CVN 69 Dwight D. Eisenhower in FY01. CVN 76 USS Ronald Reagan is being outfitted with Service Change 427 during construction. The remaining CVs and CVNs will incorporate this service change through attrition.

**(2) Mark 7 Arresting Gear Service Change 428.** Service Change 428 was installed aboard CVN 74 USS John C. Stennis in FY00 and aboard CVN 68 USS Nimitz and CVN 69 Dwight D. Eisenhower in FY01. CVN 76 USS Ronald Reagan is being outfitted with Service Change 428 during construction. The remaining CVs and CVNs will incorporate this service change through attrition.

**(3) Mark 7 Arresting Gear Service Change 437.** Service Change 437 is in the System Development and Demonstration Phase of the DAS. First installation is tentatively scheduled for FY03. When detailed installation and delivery schedules are developed they will be included in updates to this NTSP.

**2. Ready For Operational Use Schedule.** All ALRE addressed in this NTSP are Ready For Operational Use (RFOU) upon successful completion of sea trials. All service changes addressed in this NTSP are RFOU upon completion of installation and operational testing.

### **3. Time Required to Install at Operational Sites**

**a. C 13 Catapult.** NA

**b. Mark 7 Jet Blast Deflector. NA**

**c. Mark 7 Arresting System**

**(1) Mark 7 Arresting Gear Service Change 427.** Installation of Service Change 427 requires approximately 750 man-hours per arresting engine. The total time required to install Service Change 427 is approximately 3,750 total man-hours per ship.

**(2) Mark 7 Arresting Gear Service Change 428.** Installation of Service Change 428 requires approximately 72 man-hours per arresting engine. Total time required to install Service Change 428 is approximately 360 total man-hours per ship.

**(3) Mark 7 Arresting Gear Service Change 437.** When this information becomes available, it will be included in future updates to this NTSP.

**4. Foreign Military Sales and Other Source Delivery Schedule.** All FMS deliveries have been completed.

**5. Training Device and Technical Training Equipment Delivery Schedule.** All Training Devices (TD) and Technical Training Equipment (TTE) required to support the training addressed in this NTSP have been delivered. A complete list of all required TDs and TTE are listed in elements IV.A.1 and IV.A.2 of this NTSP.

**L. GOVERNMENT-FURNISHED EQUIPMENT AND CONTRACTOR-FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA**

**M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS**

| <b>DOCUMENT OR NTSP TITLE</b>                    | <b>DOCUMENT OR NTSP NUMBER</b> | <b>PDA CODE</b> | <b>STATUS</b>      |
|--|--------------------------------|-----------------|--------------------|
| Aviation Data Management and Control System NTSP | A-50-0009/D                    | PMA251          | Draft<br>Dec 00    |
| Aircraft Carrier Visual Landing Aid Systems NTSP | A-50-9202A/D                   | PMA251          | Draft<br>Sep 98    |
| Maintenance Plan for the Type C Mark 13 Catapult | NAWCADLKE-MAPL94               | NAWCADLKE       | Approved<br>Nov 86 |

| <b>DOCUMENT<br/>OR NTSP TITLE</b>  | <b>DOCUMENT<br/>OR NTSP NUMBER</b> | <b>PDA<br/>CODE</b> | <b>STATUS</b>      |
|--|------------------------------------|---------------------|--------------------|
| Mark Mod 4 Arresting Gear Sheave<br>Damper And Fairlead Drive<br>Assembly Integrated Logistics<br>Support Plan | NAWCADLKE-<br>I80095001            | NAWCADLKE           | Approved<br>Jul 95 |
| Aircraft Launch and Recovery<br>Equipment Maintenance Program<br>(ALREMP)                                      | OPNAVINST 4790.15                  | PMA251              | Approved<br>Jun98  |

## **PART II - BILLET AND PERSONNEL REQUIREMENTS**

The following elements are not affected by the CV/CVN ALRE and, therefore, are not included in Part II of this NTSP:

### **II.A. Billet Requirements**

#### **II.A.2.b. Billets to be Deleted in Operational and Fleet Support Activities**

## II.A. BILLET REQUIREMENTS

### II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

SOURCE: Total Force Manpower Management System

DATE:03/01/2001

| ACTIVITY, UIC                                     |       | PFYs | CFY02 | FY03 | FY04 | FY05 | FY06 |
|---|-------|------|-------|------|------|------|------|
| OPERATIONAL ACTIVITIES - NAVY                     |       |      |       |      |      |      |      |
| USS Dwight D Eisenhower (CVN-69)                  | 03369 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS Enterprise (CVN-65)                           | 03365 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS George Washington (CVN-73)                    | 21412 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS Harry S Truman (CVN-75)                       | 21853 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS John F Kennedy (CV-67)                        | 03367 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS Ronald Reagan (CVN-76)                        | 22178 | 0    | 0     | 1    | 0    | 0    | 0    |
| USS Theodore Roosevelt (CVN-71)                   | 21247 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS Abraham Lincoln (CVN-72)                      | 21297 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS Carl Vinson (CVN-70)                          | 20993 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS Constellation (CV-64)                         | 03364 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS John C Stennis (CVN-74)                       | 21847 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS Kitty Hawk (CV-63)                            | 03363 | 1    | 0     | 0    | 0    | 0    | 0    |
| USS Nimitz (CVN-68)                               | 03368 | 1    | 0     | 0    | 0    | 0    | 0    |
| <b>TOTAL:</b>                                     |       | 12   | 0     | 1    | 0    | 0    | 0    |
| FLEET SUPPORT ACTIVITIES - NAVY                   |       |      |       |      |      |      |      |
| NAMTRAU Norfolk, Virginia                         | 66046 | 1    | 0     | 0    | 0    | 0    | 0    |
| NAWCAD Lakehurst, New Jersey                      | 68335 | 1    | 0     | 0    | 0    | 0    | 0    |
| NS Roosevelt Roads, Puerto Rico                   | 00389 | 1    | 0     | 0    | 0    | 0    | 0    |
| NS Rota, Spain                                    | 62863 | 1    | 0     | 0    | 0    | 0    | 0    |
| NSA Naples, Italy                                 | 62588 | 1    | 0     | 0    | 0    | 0    | 0    |
| Strike Test Squadron, Patuxent River, Maryland    | 39783 | 1    | 0     | 0    | 0    | 0    | 0    |
| Supervisor of Shipbuilding Newport News, Virginia | 62793 | 1    | 0     | 0    | 0    | 0    | 0    |
| COMNAVAIRPAC San Diego, California                | 57025 | 1    | 0     | 0    | 0    | 0    | 0    |
| NAMTRAU North Island, California                  | 66065 | 1    | 0     | 0    | 0    | 0    | 0    |
| NAS Kingsville, Texas                             | 30776 | 1    | 0     | 0    | 0    | 0    | 0    |
| NAS Lemmore, California                           | 63042 | 1    | 0     | 0    | 0    | 0    | 0    |
| NAWCWDIV China Lake, California                   | 60530 | 1    | 0     | 0    | 0    | 0    | 0    |
| <b>TOTAL:</b>                                     |       | 12   | 0     | 0    | 0    | 0    | 0    |

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

| ACTIVITY, UIC, PHASING INCREMENT               | BILLETS  |            | DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS |
|--|----------|------------|------------------|---------------|---------------|
|  | OFF      | ENL        |                  |               |               |
| OPERATIONAL ACTIVITIES - NAVY                  |          |            |                  |               |               |
| <b>USS Dwight D Eisenhower (CVN-69), 03369</b> |          |            |                  |               |               |
| ACDU   | 1        | 0          | 6310             |               |               |
|  | 0        | 2          | ABECS            | 7006          |               |
|  | 0        | 5          | ABEC             | 7004          |               |
|  | 0        | 3          | ABEC             | 7005          |               |
|  | 0        | 2          | ABEC             | 7006          |               |
|  | 0        | 11         | ABE1             | 7004          |               |
|  | 0        | 2          | ABE1             | 7005          |               |
|  | 0        | 3          | ABE1             | 7006          |               |
|  | 0        | 8          | ABE2             | 7004          |               |
|  | 0        | 8          | ABE2             | 7005          |               |
|  | 0        | 42         | ABE3             |               |               |
|  | 0        | 27         | ABEAN            |               |               |
|  | 0        | 1          | AZ1              |               |               |
|  | 0        | 1          | AZ3              |               |               |
|  | 0        | 1          | EM1              | 4672          |               |
|  | 0        | 1          | EM2              | 4672          |               |
|  | 0        | 2          | EM3              | 4672          |               |
|  | 0        | 88         | AN               |               |               |
| <b>ACTIVITY TOTAL:</b>                         | <b>1</b> | <b>207</b> |                  |               |               |
| <b>USS Enterprise (CVN-65), 03365</b>          |          |            |                  |               |               |
| ACDU   | 1        | 0          | 6310             |               |               |
|  | 0        | 2          | ABECS            | 7006          |               |
|  | 0        | 5          | ABEC             | 7004          |               |
|  | 0        | 3          | ABEC             | 7005          |               |
|  | 0        | 2          | ABEC             | 7006          |               |
|  | 0        | 11         | ABE1             | 7004          |               |
|  | 0        | 2          | ABE1             | 7005          |               |
|  | 0        | 3          | ABE1             | 7006          |               |
|  | 0        | 8          | ABE2             | 7004          |               |
|  | 0        | 8          | ABE2             | 7005          |               |
|  | 0        | 42         | ABE3             |               |               |
|  | 0        | 32         | ABEAN            |               |               |
|  | 0        | 1          | EM1              | 4672          |               |
|  | 0        | 1          | EM2              | 4672          |               |
|  | 0        | 2          | EM3              | 4672          |               |
|  | 0        | 88         | AN               |               |               |
| <b>ACTIVITY TOTAL:</b>                         | <b>1</b> | <b>210</b> |                  |               |               |
| <b>USS George Washington (CVN-73), 21412</b>   |          |            |                  |               |               |
| ACDU   | 1        | 0          | 6310             |               |               |
|  | 0        | 2          | ABECS            | 7006          |               |
|  | 0        | 5          | ABEC             | 7004          |               |

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

| ACTIVITY, UIC, PHASING INCREMENT          | BILLETS                |            | DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS |
|---|------------------------|------------|------------------|---------------|---------------|
|   | OFF                    | ENL        |                  |               |               |
| ACDU                                      | 0                      | 3          | ABEC             | 7005          |               |
|   | 0                      | 2          | ABEC             | 7006          |               |
|   | 0                      | 11         | ABE1             | 7004          |               |
|   | 0                      | 2          | ABE1             | 7005          |               |
|   | 0                      | 3          | ABE1             | 7006          |               |
|   | 0                      | 8          | ABE2             | 7004          |               |
|   | 0                      | 8          | ABE2             | 7005          |               |
|   | 0                      | 42         | ABE3             |               |               |
|   | 0                      | 27         | ABEAN            |               |               |
|   | 0                      | 1          | AZ1              |               |               |
|   | 0                      | 1          | AZ3              |               |               |
|   | 0                      | 1          | EM1              | 4672          |               |
|   | 0                      | 1          | EM2              | 4672          |               |
|   | 0                      | 2          | EM3              | 4672          |               |
|   | 0                      | 88         | AN               |               |               |
|   | <b>ACTIVITY TOTAL:</b> | <b>1</b>   | <b>207</b>       |               |               |
| <b>USS Harry S Truman (CVN-75), 21853</b> |                        |            |                  |               |               |
| ACDU                                      | 1                      | 0          | 6310             |               |               |
|   | 0                      | 2          | ABECS            | 7006          |               |
|   | 0                      | 5          | ABEC             | 7004          |               |
|   | 0                      | 3          | ABEC             | 7005          |               |
|   | 0                      | 2          | ABEC             | 7006          |               |
|   | 0                      | 11         | ABE1             | 7004          |               |
|   | 0                      | 2          | ABE1             | 7005          |               |
|   | 0                      | 3          | ABE1             | 7006          |               |
|   | 0                      | 8          | ABE2             | 7004          |               |
|   | 0                      | 8          | ABE2             | 7005          |               |
|   | 0                      | 42         | ABE3             |               |               |
|   | 0                      | 27         | ABEAN            |               |               |
|   | 0                      | 1          | AZ1              |               |               |
|   | 0                      | 1          | AZ3              |               |               |
|   | 0                      | 1          | EM1              | 4672          |               |
|   | 0                      | 1          | EM2              | 4672          |               |
| 0   | 2                      | EM3        | 4672             |               |               |
| 0   | 88                     | AN         |                  |               |               |
| <b>ACTIVITY TOTAL:</b>                    | <b>1</b>               | <b>207</b> |                  |               |               |
| <b>USS John F Kennedy (CV-67), 03367</b>  |                        |            |                  |               |               |
| ACDU                                      | 1                      | 0          | 6310             |               |               |
|   | 0                      | 2          | ABECS            | 7006          |               |
|   | 0                      | 5          | ABEC             | 7004          |               |
|   | 0                      | 3          | ABEC             | 7005          |               |
|   | 0                      | 2          | ABEC             | 7006          |               |
|   | 0                      | 11         | ABE1             | 7004          |               |
|   | 0                      | 2          | ABE1             | 7005          |               |
|   | 0                      | 2          | ABE1             | 7005          |               |

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

| ACTIVITY, UIC, PHASING INCREMENT                         | BILLETS                |            | DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS |
|--|------------------------|------------|------------------|---------------|---------------|
|  | OFF                    | ENL        |                  |               |               |
| ACDU   | 0                      | 3          | ABE1             | 7006          |               |
|  | 0                      | 8          | ABE2             | 7004          |               |
|  | 0                      | 8          | ABE2             | 7005          |               |
|  | 0                      | 40         | ABE3             |               |               |
|  | 0                      | 28         | ABEAN            |               |               |
|  | 0                      | 1          | AZ1              |               |               |
|  | 0                      | 1          | AZ3              |               |               |
|  | 0                      | 1          | EM1              | 4672          |               |
|  | 0                      | 1          | EM2              | 4672          |               |
|  | 0                      | 2          | EM3              | 4672          |               |
|  | 0                      | 86         | AN               |               |               |
| <b>ACTIVITY TOTAL:</b>                                   | <b>1</b>               | <b>204</b> |                  |               |               |
| <b>USS Ronald Reagan (CVN-76), 22178, FY03 Increment</b> |                        |            |                  |               |               |
| ACDU   | 2                      | 0          | 6310             |               |               |
|  | 0                      | 2          | ABECS            | 7006          |               |
|  | 0                      | 5          | ABEC             | 7004          |               |
|  | 0                      | 3          | ABEC             | 7005          |               |
|  | 0                      | 2          | ABEC             | 7006          |               |
|  | 0                      | 11         | ABE1             | 7004          |               |
|  | 0                      | 2          | ABE1             | 7005          |               |
|  | 0                      | 3          | ABE1             | 7006          |               |
|  | 0                      | 8          | ABE2             | 7004          |               |
|  | 0                      | 8          | ABE2             | 7005          |               |
|  | 0                      | 42         | ABE3             |               |               |
|  | 0                      | 27         | ABEAN            |               |               |
|  | 0                      | 1          | AZ1              |               |               |
|  | 0                      | 1          | AZ3              |               |               |
|  | 0                      | 1          | EM1              | 4672          |               |
|  | 0                      | 1          | EM2              | 4672          |               |
|  | 0                      | 2          | EM3              | 4672          |               |
|  | 0                      | 88         | AN               |               |               |
|  | <b>ACTIVITY TOTAL:</b> | <b>2</b>   | <b>207</b>       |               |               |
| <b>USS Theodore Roosevelt (CVN-71), 21247</b>            |                        |            |                  |               |               |
| ACDU   | 1                      | 0          | 6310             |               |               |
|  | 0                      | 2          | ABECS            | 7006          |               |
|  | 0                      | 5          | ABEC             | 7004          |               |
|  | 0                      | 3          | ABEC             | 7005          |               |
|  | 0                      | 2          | ABEC             | 7006          |               |
|  | 0                      | 11         | ABE1             | 7004          |               |
|  | 0                      | 2          | ABE1             | 7005          |               |
|  | 0                      | 3          | ABE1             | 7006          |               |
|  | 0                      | 8          | ABE2             | 7004          |               |
|  | 0                      | 8          | ABE2             | 7005          |               |
|  | 0                      | 42         | ABE3             |               |               |

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

| ACTIVITY, UIC, PHASING INCREMENT           | BILLETS                |            | DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS |
|--|------------------------|------------|------------------|---------------|---------------|
|  | OFF                    | ENL        |                  |               |               |
| ACDU                                       | 0                      | 27         | ABEAN            |               |               |
|  | 0                      | 1          | AZ1              |               |               |
|  | 0                      | 1          | AZ3              |               |               |
|  | 0                      | 1          | EM1              | 4672          |               |
|  | 0                      | 1          | EM2              | 4672          |               |
|  | 0                      | 2          | EM3              | 4672          |               |
|  | 0                      | 88         | AN               |               |               |
| <b>ACTIVITY TOTAL:</b>                     | <b>1</b>               | <b>207</b> |                  |               |               |
| <b>USS Abraham Lincoln (CVN-72), 21297</b> |                        |            |                  |               |               |
| ACDU                                       | 1                      | 0          | 6310             |               |               |
|  | 0                      | 2          | ABECS            | 7006          |               |
|  | 0                      | 5          | ABEC             | 7004          |               |
|  | 0                      | 3          | ABEC             | 7005          |               |
|  | 0                      | 2          | ABEC             | 7006          |               |
|  | 0                      | 11         | ABE1             | 7004          |               |
|  | 0                      | 2          | ABE1             | 7005          |               |
|  | 0                      | 3          | ABE1             | 7006          |               |
|  | 0                      | 8          | ABE2             | 7004          |               |
|  | 0                      | 8          | ABE2             | 7005          |               |
|  | 0                      | 42         | ABE3             |               |               |
|  | 0                      | 27         | ABEAN            |               |               |
|  | 0                      | 1          | AZ1              |               |               |
|  | 0                      | 1          | AZ3              |               |               |
|  | 0                      | 1          | EM1              | 4672          |               |
|  | 0                      | 1          | EM2              | 4672          |               |
|  | 0                      | 2          | EM3              | 4672          |               |
|  | 0                      | 88         | AN               |               |               |
|  | <b>ACTIVITY TOTAL:</b> | <b>1</b>   | <b>207</b>       |               |               |
| <b>USS Carl Vinson (CVN-70), 20993</b>     |                        |            |                  |               |               |
| ACDU                                       | 1                      | 0          | 6310             |               |               |
|  | 0                      | 2          | ABECS            | 7006          |               |
|  | 0                      | 5          | ABEC             | 7004          |               |
|  | 0                      | 3          | ABEC             | 7005          |               |
|  | 0                      | 2          | ABEC             | 7006          |               |
|  | 0                      | 11         | ABE1             | 7004          |               |
|  | 0                      | 2          | ABE1             | 7005          |               |
|  | 0                      | 3          | ABE1             | 7006          |               |
|  | 0                      | 14         | ABE2             | 7004          |               |
|  | 0                      | 8          | ABE2             | 7005          |               |
|  | 0                      | 42         | ABE3             |               |               |
|  | 0                      | 27         | ABEAN            |               |               |
|  | 0                      | 1          | AZ1              |               |               |
|  | 0                      | 1          | AZ3              |               |               |
|  | 0                      | 1          | EM1              | 4672          |               |

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

| ACTIVITY, UIC, PHASING INCREMENT        | BILLETS                                   |            | DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS |  |
|---|---|------------|------------------|---------------|---------------|--|
|   | OFF                                       | ENL        |                  |               |               |  |
| ACDU                                    | 0   | 1          | EM2              | 4672          |               |  |
|   | 0   | 2          | EM3              | 4672          |               |  |
|   | 0   | 88         | AN               |               |               |  |
| <b>ACTIVITY TOTAL:</b>                  | <b>1</b>                                  | <b>213</b> |                  |               |               |  |
| <b>USS Constellation (CV-64), 03364</b> |   |            |                  |               |               |  |
| ACDU                                    | 1   | 0          | 6310             |               |               |  |
|   | 0   | 2          | ABECS            | 7006          |               |  |
|   | 0   | 5          | ABEC             | 7004          |               |  |
|   | 0   | 3          | ABEC             | 7005          |               |  |
|   | 0   | 2          | ABEC             | 7006          |               |  |
|   | 0   | 11         | ABE1             | 7004          |               |  |
|   | 0   | 2          | ABE1             | 7005          |               |  |
|   | 0   | 3          | ABE1             | 7006          |               |  |
|   | 0   | 8          | ABE2             | 7004          |               |  |
|   | 0   | 8          | ABE2             | 7005          |               |  |
|   | 0   | 40         | ABE3             |               |               |  |
|   | 0   | 29         | ABEAN            |               |               |  |
|   | 0   | 1          | AZ1              |               |               |  |
|   | 0   | 1          | AZ3              |               |               |  |
|   | 0   | 1          | EM1              | 4672          |               |  |
|   | 0   | 1          | EM2              | 4672          |               |  |
|   | 0   | 2          | EM3              | 4672          |               |  |
|   | 0   | 86         | AN               |               |               |  |
|   | <b>ACTIVITY TOTAL:</b>                    | <b>1</b>   | <b>205</b>       |               |               |  |
|   | <b>USS John C Stennis (CVN-74), 21847</b> |            |                  |               |               |  |
| ACDU                                    | 1   | 0          | 6310             |               |               |  |
|   | 0   | 2          | ABECS            | 7006          |               |  |
|   | 0   | 5          | ABEC             | 7004          |               |  |
|   | 0   | 3          | ABEC             | 7005          |               |  |
|   | 0   | 2          | ABEC             | 7006          |               |  |
|   | 0   | 11         | ABE1             | 7004          |               |  |
|   | 0   | 2          | ABE1             | 7005          |               |  |
|   | 0   | 3          | ABE1             | 7006          |               |  |
|   | 0   | 8          | ABE2             | 7004          |               |  |
|   | 0   | 8          | ABE2             | 7005          |               |  |
|   | 0   | 42         | ABE3             |               |               |  |
|   | 0   | 27         | ABEAN            |               |               |  |
|   | 0   | 1          | AZ1              |               |               |  |
|   | 0   | 1          | AZ3              |               |               |  |
|   | 0   | 1          | EM1              | 4672          |               |  |
|   | 0   | 1          | EM2              | 4672          |               |  |
|   | 0   | 2          | EM3              | 4672          |               |  |
|   | 0   | 88         | AN               |               |               |  |

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

| ACTIVITY, UIC, PHASING INCREMENT | BILLETS |     | DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS |
|----------------------------------|---------|-----|------------------|---------------|---------------|
|                                  | OFF     | ENL |                  |               |               |
| ACTIVITY TOTAL:                  | 1       | 207 |                  |               |               |
| USS Kitty Hawk (CV-63), 03363    |         |     |                  |               |               |
| ACDU                             | 1       | 0   | 6310             |               |               |
|                                  | 0       | 2   | ABECS            | 7006          |               |
|                                  | 0       | 5   | ABEC             | 7004          |               |
|                                  | 0       | 3   | ABEC             | 7005          |               |
|                                  | 0       | 2   | ABEC             | 7006          |               |
|                                  | 0       | 11  | ABE1             | 7004          |               |
|                                  | 0       | 2   | ABE1             | 7005          |               |
|                                  | 0       | 3   | ABE1             | 7006          |               |
|                                  | 0       | 8   | ABE2             | 7004          |               |
|                                  | 0       | 8   | ABE2             | 7005          |               |
|                                  | 0       | 38  | ABE3             |               |               |
|                                  | 0       | 31  | ABEAN            |               |               |
|                                  | 0       | 1   | AZ1              |               |               |
|                                  | 0       | 1   | AZ3              |               |               |
|                                  | 0       | 1   | EM1              | 4672          |               |
|                                  | 0       | 1   | EM2              | 4672          |               |
|                                  | 0       | 2   | EM3              | 4672          |               |
|                                  | 0       | 89  | AN               |               |               |
| ACTIVITY TOTAL:                  | 1       | 208 |                  |               |               |
| USS Nimitz (CVN-68), 03368       |         |     |                  |               |               |
| ACDU                             | 1       | 0   | 6310             |               |               |
|                                  | 0       | 1   | ABECS            | 7004          |               |
|                                  | 0       | 1   | ABECS            | 7005          |               |
|                                  | 0       | 1   | ABECS            | 7006          |               |
|                                  | 0       | 2   | ABEC             | 7004          |               |
|                                  | 0       | 2   | ABEC             | 7005          |               |
|                                  | 0       | 1   | ABEC             | 7006          |               |
|                                  | 0       | 8   | ABE1             | 7004          |               |
|                                  | 0       | 3   | ABE1             | 7005          |               |
|                                  | 0       | 2   | ABE1             | 7006          |               |
|                                  | 0       | 13  | ABE2             | 7004          |               |
|                                  | 0       | 6   | ABE2             | 7005          |               |
|                                  | 0       | 1   | ABE2             | 7005          | 9595          |
|                                  | 0       | 42  | ABE3             |               |               |
|                                  | 0       | 27  | ABEAN            |               |               |
|                                  | 0       | 1   | AZ1              |               |               |
|                                  | 0       | 1   | AZ3              |               |               |
|                                  | 0       | 1   | EM1              | 4672          |               |
|                                  | 0       | 1   | EM2              | 4672          |               |
|                                  | 0       | 2   | EM3              | 4672          |               |
|                                  | 0       | 88  | AN               |               |               |

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

| ACTIVITY, UIC, PHASING INCREMENT                             | BILLETS |     | DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS |
|--|---------|-----|------------------|---------------|---------------|
|  | OFF     | ENL |                  |               |               |
| <b>ACTIVITY TOTAL:</b>                                       | 1       | 204 |                  |               |               |
| FLEET SUPPORT ACTIVITIES - NAVY                              |         |     |                  |               |               |
| <b>NAMTRAU Norfolk, Virginia, 66046</b>                      |         |     |                  |               |               |
| ACDU   | 0       | 1   | ABECS            | 7006          | 9502          |
|  | 0       | 1   | ABEC             | 7006          | 9502          |
|  | 0       | 1   | ABE1             | 7006          | 9502          |
| <b>ACTIVITY TOTAL:</b>                                       | 0       | 3   |                  |               |               |
| <b>NAWCAD Lakehurst, New Jersey, 68335</b>                   |         |     |                  |               |               |
| ACDU   | 3       | 0   | 6310             |               |               |
|  | 0       | 1   | ABEC             | 7004          | 7005          |
|  | 0       | 2   | ABEC             | 7006          |               |
|  | 0       | 1   | ABE1             | 7004          |               |
|  | 0       | 2   | ABE1             | 7005          |               |
|  | 0       | 1   | ABE1             | 7006          |               |
|  | 0       | 6   | ABE2             | 7004          |               |
|  | 0       | 2   | ABE2             | 7005          |               |
|  | 0       | 2   | ABE2             | 7005          | 7004          |
| <b>ACTIVITY TOTAL:</b>                                       | 3       | 17  |                  |               |               |
| <b>NS Roosevelt Roads, Puerto Rico, 00389</b>                |         |     |                  |               |               |
| ACDU   | 0       | 2   | ABE1             | 7005          |               |
|  | 0       | 2   | ABE2             | 7005          |               |
| <b>ACTIVITY TOTAL:</b>                                       | 0       | 4   |                  |               |               |
| <b>NS Rota, Spain, 62863</b>                                 |         |     |                  |               |               |
| ACDU   | 0       | 2   | ABE2             | 7005          |               |
| <b>ACTIVITY TOTAL:</b>                                       | 0       | 2   |                  |               |               |
| <b>NSA Naples, Italy, 62588</b>                              |         |     |                  |               |               |
| ACDU   | 0       | 1   | ABE1             | 7006          | 9598          |
| <b>ACTIVITY TOTAL:</b>                                       | 0       | 1   |                  |               |               |
| <b>Strike Test Squadron, Patuxent River, Maryland, 39783</b> |         |     |                  |               |               |
| ACDU   | 1       | 0   | 6310             |               |               |
|  | 0       | 1   | ABEC             | 7004          | 7005          |
|  | 0       | 1   | ABE1             | 7004          |               |
|  | 0       | 1   | ABE1             | 7005          |               |
| <b>ACTIVITY TOTAL:</b>                                       | 1       | 3   |                  |               |               |



**II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES**

| ACTIVITY, UIC, PHASING INCREMENT                                | BILLETS |     | DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS |
|---|---------|-----|------------------|---------------|---------------|
|   | OFF     | ENL |                  |               |               |
| <b>Supervisor of Shipbuilding Newport News, Virginia, 62793</b> |         |     |                  |               |               |
| ACDU  | 0       | 1   | ABEC             | 7006          |               |
| <b>ACTIVITY TOTAL:</b>  | 0       | 1   |                  |               |               |
| <b>COMNAVAIRPAC San Diego, California, 57025</b>                |         |     |                  |               |               |
| ACDU  | 0       | 1   | ABECS            | 7004          |               |
| <b>ACTIVITY TOTAL:</b>  | 0       | 1   |                  |               |               |
| <b>NAMTRAU North Island, California, 66065</b>                  |         |     |                  |               |               |
| ACDU  | 0       | 2   | ABEC             | 7006          | 9502          |
|   | 0       | 3   | ABE1             | 7006          | 9502          |
| <b>ACTIVITY TOTAL:</b>  | 0       | 5   |                  |               |               |
| <b>NAS Kingsville, Texas, 30776</b>                             |         |     |                  |               |               |
| ACDU  | 0       | 2   | ABE1             | 7005          |               |
| <b>ACTIVITY TOTAL:</b>  | 0       | 2   |                  |               |               |
| <b>NAS Lemmore, California, 63042</b>                           |         |     |                  |               |               |
| ACDU  | 0       | 1   | ABECS            | 7006          |               |
|   | 0       | 1   | ABE1             | 7005          | 7006          |
| <b>ACTIVITY TOTAL:</b>  | 0       | 2   |                  |               |               |

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

| DESIG/<br>RATING                     | PNEC/SNEC<br>PMOS/SMOS | PFYs |      | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|--------------------------------------|------------------------|------|------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|                                      |                        | OFF  | ENL  | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NAVY OPERATIONAL ACTIVITIES - ACDU   |                        |      |      |       |     |      |     |      |     |      |     |      |     |
| 6310                                 |                        | 12   |      | 0     |     | 2    |     | 0    |     | 0    |     | 0    |     |
| ABECS                                | 7004                   |      | 1    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABECS                                | 7005                   |      | 1    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABECS                                | 7006                   |      | 23   | 0     | 0   | 2    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABEC                                 | 7004                   |      | 57   | 0     | 0   | 5    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABEC                                 | 7005                   |      | 35   | 0     | 0   | 3    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABEC                                 | 7006                   |      | 23   | 0     | 0   | 2    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE1                                 | 7004                   |      | 129  | 0     | 0   | 11   | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE1                                 | 7005                   |      | 25   | 0     | 0   | 2    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE1                                 | 7006                   |      | 35   | 0     | 0   | 3    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE2                                 | 7004                   |      | 107  | 0     | 0   | 8    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE2                                 | 7005                   |      | 94   | 0     | 0   | 8    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE2                                 | 7005 9595              |      | 1    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE3                                 |                        |      | 496  | 0     | 0   | 42   | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABEAN                                |                        |      | 336  | 0     | 0   | 27   | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| AZ1                                  |                        |      | 11   | 0     | 0   | 1    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| AZ3                                  |                        |      | 11   | 0     | 0   | 1    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| EM1                                  | 4672                   |      | 12   | 0     | 0   | 1    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| EM2                                  | 4672                   |      | 12   | 0     | 0   | 1    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| EM3                                  | 4672                   |      | 24   | 0     | 0   | 2    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| AN                                   |                        |      | 1053 | 0     | 0   | 88   | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| NAVY FLEET SUPPORT ACTIVITIES - ACDU |                        |      |      |       |     |      |     |      |     |      |     |      |     |
| 6310                                 |                        | 4    |      | 0     |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABECS                                | 7004                   |      | 1    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABECS                                | 7006                   |      | 1    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABECS                                | 7006 9502              |      | 1    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABEC                                 | 7004 7005              |      | 2    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABEC                                 | 7006                   |      | 3    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABEC                                 | 7006 9502              |      | 3    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE1                                 | 7004                   |      | 2    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE1                                 | 7005                   |      | 7    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE1                                 | 7005 7006              |      | 1    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE1                                 | 7006                   |      | 1    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE1                                 | 7006 9502              |      | 4    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE1                                 | 7006 9598              |      | 1    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE2                                 | 7004                   |      | 6    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE2                                 | 7005                   |      | 6    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| ABE2                                 | 7005 7004              |      | 2    | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |

**II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES**

| DESIG/<br>RATING                     | PNEC/SNEC<br>PMOS/SMOS | PFYs |      | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|--------------------------------------|------------------------|------|------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|                                      |                        | OFF  | ENL  | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| <b>SUMMARY TOTALS:</b>               |                        |      |      |       |     |      |     |      |     |      |     |      |     |
| NAVY OPERATIONAL ACTIVITIES - ACDU   |                        |      |      |       |     |      |     |      |     |      |     |      |     |
|                                      |                        | 12   | 2486 | 0     | 0   | 2    | 207 | 0    | 0   | 0    | 0   | 0    | 0   |
| NAVY FLEET SUPPORT ACTIVITIES - ACDU |                        |      |      |       |     |      |     |      |     |      |     |      |     |
|                                      |                        | 4    | 41   | 0     | 0   | 0    | 0   | 0    | 0   | 0    | 0   | 0    | 0   |
| <b>GRAND TOTALS:</b>                 |                        |      |      |       |     |      |     |      |     |      |     |      |     |
| NAVY - ACDU                          |                        |      |      |       |     |      |     |      |     |      |     |      |     |
|                                      |                        | 16   | 2527 | 0     | 0   | 2    | 207 | 0    | 0   | 0    | 0   | 0    | 0   |

**II.A.2.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY DEACTIVATION SCHEDULE**

**SOURCE:** Total Force Manpower Management System

**DATE:**03/01/2001

| <b>ACTIVITY, UIC</b>  | <b>PFYs</b> | <b>CFY02</b> | <b>FY03</b> | <b>FY04</b> | <b>FY05</b> | <b>FY06</b> |
|---|-------------|--------------|-------------|-------------|-------------|-------------|
| OPERATIONAL ACTIVITIES - NAVY<br>USS Constellation (CV-64)                      03364 | 0           | 1            | 0           | 0           | 0           | 0           |
| <b>TOTAL:</b>   | 0           | 1            | 0           | 0           | 0           | 0           |

II.A.2.c. TOTAL BILLETS TO BE DELETED IN OPERATIONAL AND FLEET SUPPORT ACTIVITIES

| DESIG/<br>RATING                   | PNEC/SNEC<br>PMOS/SMOS | PFYs |     | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|------------------------------------|------------------------|------|-----|-------|-----|------|-----|------|-----|------|-----|------|-----|
|                                    |                        | OFF  | ENL | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NAVY OPERATIONAL ACTIVITIES - ACDU |                        |      |     |       |     |      |     |      |     |      |     |      |     |
| 6310                               |                        | 1    |     | -1    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABECS                              | 7006                   |      | 2   | -2    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABEC                               | 7004                   |      | 5   | -5    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABEC                               | 7005                   |      | 3   | -3    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABEC                               | 7006                   |      | 2   | -2    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABE1                               | 7004                   |      | 11  | -11   |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABE1                               | 7005                   |      | 2   | -2    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABE1                               | 7006                   |      | 3   | -3    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABE2                               | 7004                   |      | 8   | -8    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABE2                               | 7005                   |      | 8   | -8    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABE3                               |                        |      | 40  | -40   |     | 0    |     | 0    |     | 0    |     | 0    |     |
| ABEAN                              |                        |      | 29  | -29   |     | 0    |     | 0    |     | 0    |     | 0    |     |
| AZ1                                |                        |      | 1   | -1    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| AZ3                                |                        |      | 1   | -1    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| EM1                                | 4672                   |      | 1   | -1    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| EM2                                | 4672                   |      | 1   | -1    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| EM3                                | 4672                   |      | 2   | -2    |     | 0    |     | 0    |     | 0    |     | 0    |     |
| AN                                 |                        |      | 86  | -86   |     | 0    |     | 0    |     | 0    |     | 0    |     |

**SUMMARY TOTALS:**

|                                    |  |   |     |    |      |   |   |   |   |   |   |   |   |
|------------------------------------|--|---|-----|----|------|---|---|---|---|---|---|---|---|
| NAVY OPERATIONAL ACTIVITIES - ACDU |  |   |     |    |      |   |   |   |   |   |   |   |   |
|                                    |  | 1 | 205 | -1 | -205 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**GRAND TOTALS:**

|             |  |   |     |    |      |   |   |   |   |   |   |   |   |
|-------------|--|---|-----|----|------|---|---|---|---|---|---|---|---|
| NAVY - ACDU |  |   |     |    |      |   |   |   |   |   |   |   |   |
|             |  | 1 | 205 | -1 | -205 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS**

| DESIG<br>RATING | PNEC/SNEC<br>PMOS/SMOS |  | PFYs |     | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|-----------------|------------------------|--|------|-----|-------|-----|------|-----|------|-----|------|-----|------|-----|
|                 |                        |  | OFF  | ENL | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |

TRAINING ACTIVITY, LOCATION, UIC: NAMTRAU Norfolk, Norfolk, Virginia, 46680

**INSTRUCTOR BILLETS**

| ACDU          |      |      |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------|------|------|---|---|---|---|---|---|---|---|---|---|---|---|
| ABE1          | 7004 | 9502 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABE1          | 7005 | 9502 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| <b>TOTAL:</b> |      |      | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 |

TRAINING ACTIVITY, LOCATION, UIC: NAMTRAU North Island, San Diego, California, 39476

**INSTRUCTOR BILLETS**

| ACDU          |      |      |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------|------|------|---|---|---|---|---|---|---|---|---|---|---|---|
| ABECS         | 7006 | 9502 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABE1          | 7004 | 9502 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABE1          | 7005 | 9502 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| <b>TOTAL:</b> |      |      | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 |

TRAINING ACTIVITY, LOCATION, UIC: NATTC Lakehurst, Lakehurst, New Jersey, 63094

**INSTRUCTOR BILLETS**

| ACDU          |      |      |   |    |   |    |   |    |   |    |   |    |   |    |
|---------------|------|------|---|----|---|----|---|----|---|----|---|----|---|----|
| 6310          |      |      | 1 | 0  | 1 | 0  | 1 | 0  | 1 | 0  | 1 | 0  | 1 | 0  |
| ABECS         | 7006 | 9502 | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  |
| ABEC          | 7004 | 9502 | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  |
| ABEC          | 7005 | 9502 | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  |
| ABEC          | 7006 | 9502 | 0 | 2  | 0 | 2  | 0 | 2  | 0 | 2  | 0 | 2  | 0 | 2  |
| ABE1          | 7004 | 9502 | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  |
| ABE1          | 7005 | 9502 | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  |
| ABE1          | 7006 | 9502 | 0 | 2  | 0 | 2  | 0 | 2  | 0 | 2  | 0 | 2  | 0 | 2  |
| EM1           | 4672 | 9502 | 0 | 2  | 0 | 2  | 0 | 2  | 0 | 2  | 0 | 2  | 0 | 2  |
| <b>TOTAL:</b> |      |      | 1 | 11 | 1 | 11 | 1 | 11 | 1 | 11 | 1 | 11 | 1 | 11 |

**II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS**

| ACTIVITY,<br>LOCATION, UIC                         | USN/<br>USMC | PFYs |      | CFY02 |      | FY03 |      | FY04 |      | FY05 |      | FY06 |      |
|--|--------------|------|------|-------|------|------|------|------|------|------|------|------|------|
|  |              | OFF  | ENL  | OFF   | ENL  | OFF  | ENL  | OFF  | ENL  | OFF  | ENL  | OFF  | ENL  |
| NAMTRAU Norfolk, Norfolk, Virginia, 46680          | NAVY         |      | 0.0  |       | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |
| NATTC Lakehurst, Lakehurst, New Jersey, 63094      | NAVY         | 0.3  | 18.2 | 0.4   | 18.5 | 0.5  | 20.6 | 0.4  | 18.3 | 0.4  | 18.3 | 0.4  | 18.3 |
| NAMTRAU North Island, San Diego, California, 39476 | NAVY         |      | 0.0  |       | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |
| <b>SUMMARY TOTALS:</b>                             |              |      |      |       |      |      |      |      |      |      |      |      |      |
|  | NAVY         | 0.3  | 18.2 | 0.4   | 18.5 | 0.5  | 20.6 | 0.4  | 18.3 | 0.4  | 18.3 | 0.4  | 18.3 |
| <b>GRAND TOTALS:</b>                               |              |      |      |       |      |      |      |      |      |      |      |      |      |
|  |              | 0.3  | 18.2 | 0.4   | 18.5 | 0.5  | 20.6 | 0.4  | 18.3 | 0.4  | 18.3 | 0.4  | 18.3 |

**II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS**

| DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS | BILLET<br>BASE | CFY02<br>+/- CUM | FY03<br>+/- CUM | FY04<br>+/- CUM | FY05<br>+/- CUM | FY06<br>+/- CUM |
|------------------|---------------|---------------|----------------|------------------|-----------------|-----------------|-----------------|-----------------|
|------------------|---------------|---------------|----------------|------------------|-----------------|-----------------|-----------------|-----------------|

**a. OFFICER - USN**

|   |  |  |    |    |    |   |    |   |    |   |    |   |    |
|---|--|--|----|----|----|---|----|---|----|---|----|---|----|
| Operational Billets ACDU and TAR        |  |  |    |    |    |   |    |   |    |   |    |   |    |
| 6310                                    |  |  | 12 | -1 | 11 | 2 | 13 | 0 | 13 | 0 | 13 | 0 | 13 |
| Fleet Support Billets ACDU and TAR      |  |  |    |    |    |   |    |   |    |   |    |   |    |
| 6310                                    |  |  | 4  | 0  | 4  | 0 | 4  | 0 | 4  | 0 | 4  | 0 | 4  |
| Staff Billets ACDU and TAR              |  |  |    |    |    |   |    |   |    |   |    |   |    |
| 6310                                    |  |  | 1  | 0  | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  |
| Chargeable Student Billets ACDU and TAR |  |  |    |    |    |   |    |   |    |   |    |   |    |
|   |  |  | 0  | 1  | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  |

**TOTAL USN OFFICER BILLETS:**

|                    |  |  |    |    |    |   |    |   |    |   |    |   |    |
|--------------------|--|--|----|----|----|---|----|---|----|---|----|---|----|
| Operational        |  |  | 12 | -1 | 11 | 2 | 13 | 0 | 13 | 0 | 13 | 0 | 13 |
| Fleet Support      |  |  | 4  | 0  | 4  | 0 | 4  | 0 | 4  | 0 | 4  | 0 | 4  |
| Staff              |  |  | 1  | 0  | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  |
| Chargeable Student |  |  | 0  | 1  | 1  | 0 | 1  | 0 | 1  | 0 | 1  | 0 | 1  |

**b. ENLISTED - USN**

|                                  |      |      |     |     |     |    |     |   |     |   |     |   |     |
|----------------------------------|------|------|-----|-----|-----|----|-----|---|-----|---|-----|---|-----|
| Operational Billets ACDU and TAR |      |      |     |     |     |    |     |   |     |   |     |   |     |
| ABECS                            | 7004 |      | 1   | 0   | 1   | 0  | 1   | 0 | 1   | 0 | 1   | 0 | 1   |
| ABECS                            | 7005 |      | 1   | 0   | 1   | 0  | 1   | 0 | 1   | 0 | 1   | 0 | 1   |
| ABECS                            | 7006 |      | 23  | -2  | 21  | 2  | 23  | 0 | 23  | 0 | 23  | 0 | 23  |
| ABEC                             | 7004 |      | 57  | -5  | 52  | 5  | 57  | 0 | 57  | 0 | 57  | 0 | 57  |
| ABEC                             | 7005 |      | 35  | -3  | 32  | 3  | 35  | 0 | 35  | 0 | 35  | 0 | 35  |
| ABEC                             | 7006 |      | 23  | -2  | 21  | 2  | 23  | 0 | 23  | 0 | 23  | 0 | 23  |
| ABE1                             | 7004 |      | 129 | -11 | 118 | 11 | 129 | 0 | 129 | 0 | 129 | 0 | 129 |
| ABE1                             | 7005 |      | 25  | -2  | 23  | 2  | 25  | 0 | 25  | 0 | 25  | 0 | 25  |
| ABE1                             | 7006 |      | 35  | -3  | 32  | 3  | 35  | 0 | 35  | 0 | 35  | 0 | 35  |
| ABE2                             | 7004 |      | 107 | -8  | 99  | 8  | 107 | 0 | 107 | 0 | 107 | 0 | 107 |
| ABE2                             | 7005 |      | 94  | -8  | 86  | 8  | 94  | 0 | 94  | 0 | 94  | 0 | 94  |
| ABE2                             | 7005 | 9595 | 1   | 0   | 1   | 0  | 1   | 0 | 1   | 0 | 1   | 0 | 1   |
| ABE3                             |      |      | 496 | -40 | 456 | 42 | 498 | 0 | 498 | 0 | 498 | 0 | 498 |
| ABEAN                            |      |      | 336 | -29 | 307 | 27 | 334 | 0 | 334 | 0 | 334 | 0 | 334 |
| AZ1                              |      |      | 11  | -1  | 10  | 1  | 11  | 0 | 11  | 0 | 11  | 0 | 11  |
| AZ3                              |      |      | 11  | -1  | 10  | 1  | 11  | 0 | 11  | 0 | 11  | 0 | 11  |
| EM1                              | 4672 |      | 12  | -1  | 11  | 1  | 12  | 0 | 12  | 0 | 12  | 0 | 12  |

**II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS**

| DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS | BILLET<br>BASE | CFY02 |     | FY03 |      | FY04 |      | FY05 |      | FY06 |      |
|------------------|---------------|---------------|----------------|-------|-----|------|------|------|------|------|------|------|------|
|                  |               |               |                | +/-   | CUM | +/-  | CUM  | +/-  | CUM  | +/-  | CUM  | +/-  | CUM  |
| EM2              | 4672          |               | 12             | -1    | 11  | 1    | 12   | 0    | 12   | 0    | 12   | 0    | 12   |
| EM3              | 4672          |               | 24             | -2    | 22  | 2    | 24   | 0    | 24   | 0    | 24   | 0    | 24   |
| AN               |               |               | 1053           | -86   | 967 | 88   | 1055 | 0    | 1055 | 0    | 1055 | 0    | 1055 |

Fleet Support Billets ACDU and TAR

|       |      |      |   |   |   |   |   |   |   |   |   |   |   |
|-------|------|------|---|---|---|---|---|---|---|---|---|---|---|
| ABECS | 7004 |      | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABECS | 7006 |      | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABECS | 7006 | 9502 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABEC  | 7004 | 7005 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 |
| ABEC  | 7006 |      | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 |
| ABEC  | 7006 | 9502 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 |
| ABE1  | 7004 |      | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 |
| ABE1  | 7005 |      | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 |
| ABE1  | 7005 | 7006 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABE1  | 7006 |      | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABE1  | 7006 | 9502 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 |
| ABE1  | 7006 | 9598 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABE2  | 7004 |      | 6 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 6 |
| ABE2  | 7005 |      | 6 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 6 |
| ABE2  | 7005 | 7004 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 |

Staff Billets ACDU and TAR

|       |      |      |   |   |   |   |   |   |   |   |   |   |   |
|-------|------|------|---|---|---|---|---|---|---|---|---|---|---|
| ABECS | 7006 | 9502 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 |
| ABEC  | 7004 | 9502 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABEC  | 7005 | 9502 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ABEC  | 7006 | 9502 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 |
| ABE1  | 7004 | 9502 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 |
| ABE1  | 7005 | 9502 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 |
| ABE1  | 7006 | 9502 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 |
| EM1   | 4672 | 9502 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 |

Chargeable Student Billets ACDU and TAR

|    |   |    |   |    |    |    |   |    |   |    |
|----|---|----|---|----|----|----|---|----|---|----|
| 18 | 1 | 19 | 2 | 21 | -3 | 18 | 0 | 18 | 0 | 18 |
|----|---|----|---|----|----|----|---|----|---|----|

**TOTAL USN ENLISTED BILLETS:**

|                    |      |      |      |     |      |    |      |   |      |   |      |
|--------------------|------|------|------|-----|------|----|------|---|------|---|------|
| Operational        | 2486 | -205 | 2281 | 207 | 2488 | 0  | 2488 | 0 | 2488 | 0 | 2488 |
| Fleet Support      | 41   | 0    | 41   | 0   | 41   | 0  | 41   | 0 | 41   | 0 | 41   |
| Staff              | 16   | 0    | 16   | 0   | 16   | 0  | 16   | 0 | 16   | 0 | 16   |
| Chargeable Student | 18   | 1    | 19   | 2   | 21   | -3 | 18   | 0 | 18   | 0 | 18   |

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

| DESIG/<br>RATING | PNEC/<br>PMOS | SNEC/<br>SMOS | BILLET<br>BASE | CFY02<br>+/- CUM | FY03<br>+/- CUM | FY04<br>+/- CUM | FY05<br>+/- CUM | FY06<br>+/- CUM |
|------------------|---------------|---------------|----------------|------------------|-----------------|-----------------|-----------------|-----------------|
|------------------|---------------|---------------|----------------|------------------|-----------------|-----------------|-----------------|-----------------|

c. OFFICER - USMC NA.

d. ENLISTED - USMC NA.

**II.B. PERSONNEL REQUIREMENTS**

**II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS**

**CIN, COURSE TITLE:** C-604-2013, CV Catapult Electrician

**COURSE LENGTH:** 4.0 Weeks

**ATTRITION FACTOR:** Navy: 10%

**TOUR LENGTH:** 36 Months

**BACKOUT FACTOR:** 0.08

| TRAINING<br>ACTIVITY                   | SOURCE | ACDU/TAR<br>SELRES | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|--|--------|--------------------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|  |        |                    | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NATTC Lakehurst, Lakehurst, New Jersey |        |                    |       |     |      |     |      |     |      |     |      |     |
|  | NAVY   | ACDU               |       | 16  |      | 19  |      | 16  |      | 16  |      | 16  |
|  |        | TOTAL:             |       | 16  |      | 19  |      | 16  |      | 16  |      | 16  |

**CIN, COURSE TITLE:** C-604-2014, Aircraft Launch and Recovery Equipment C13 Catapult Class C1

**COURSE LENGTH:** 6.4 Weeks

**ATTRITION FACTOR:** Navy: 10%

**TOUR LENGTH:** 36 Months

**BACKOUT FACTOR:** 0.13

| TRAINING<br>ACTIVITY                   | SOURCE | ACDU/TAR<br>SELRES | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|--|--------|--------------------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|  |        |                    | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NATTC Lakehurst, Lakehurst, New Jersey |        |                    |       |     |      |     |      |     |      |     |      |     |
|  | NAVY   | ACDU               |       | 82  |      | 92  |      | 81  |      | 81  |      | 81  |
|  |        | TOTAL:             |       | 82  |      | 92  |      | 81  |      | 81  |      | 81  |

**CIN, COURSE TITLE:** C-604-2028, Aircraft Launch And Recovery Equipment Maintenance Technician

**COURSE LENGTH:** 12.8 Weeks

**ATTRITION FACTOR:** Navy: 10%

**TOUR LENGTH:** 36 Months

**BACKOUT FACTOR:** 0.26

| TRAINING<br>ACTIVITY                   | SOURCE | ACDU/TAR<br>SELRES | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|--|--------|--------------------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|  |        |                    | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NATTC Lakehurst, Lakehurst, New Jersey |        |                    |       |     |      |     |      |     |      |     |      |     |
|  | NAVY   | ACDU               |       | 20  |      | 21  |      | 19  |      | 19  |      | 19  |
|  |        | TOTAL:             |       | 20  |      | 21  |      | 19  |      | 19  |      | 19  |

**CIN, COURSE TITLE:** C-604-2029, Aircraft Launch and Recovery Equipment Arresting Gear

**COURSE LENGTH:** 3.6 Weeks

**ATTRITION FACTOR:** Navy: 10%

**TOUR LENGTH:** 36 Months

**BACKOUT FACTOR:** 0.07

| TRAINING<br>ACTIVITY                   | SOURCE | ACDU/TAR<br>SELRES | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|--|--------|--------------------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|  |        |                    | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NATTC Lakehurst, Lakehurst, New Jersey |        |                    |       |     |      |     |      |     |      |     |      |     |
|  | NAVY   | ACDU               |       | 49  |      | 56  |      | 49  |      | 49  |      | 49  |
|  |        | TOTAL:             |       | 49  |      | 56  |      | 49  |      | 49  |      | 49  |

**II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS**

**CIN, COURSE TITLE:** C-604-2011, Aircraft Launch and Recovery Equipment Maintenance Officer  
**COURSE LENGTH:** 5.6 Weeks **TOUR LENGTH:** 36 Months  
**ATTRITION FACTOR:** Navy: 10% **BACKOUT FACTOR:** 0.11

| TRAINING ACTIVITY                      | SOURCE | ACDU/TAR SELRES | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|--|--------|-----------------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|  |        |                 | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NATTC Lakehurst, Lakehurst, New Jersey |        |                 |       |     |      |     |      |     |      |     |      |     |
|  | NAVY   | ACDU            |       | 3   |      | 5   |      | 4   |      | 4   |      | 4   |
|  |        | ACDU            | 4     |     | 5    |     | 4    |     | 4    |     | 4    |     |
|  |        | TOTAL:          | 4     | 3   | 5    | 5   | 4    | 4   | 4    | 4   | 4    | 4   |

**CIN, COURSE TITLE:** C-604-2016, Aircraft Launch and Recovery Refresher  
**COURSE LENGTH:** 1.8 Weeks **TOUR LENGTH:** 18 Months  
**ATTRITION FACTOR:** Navy: 5% **BACKOUT FACTOR:** 0.00

| TRAINING ACTIVITY                           | SOURCE | ACDU/TAR SELRES | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|---|--------|-----------------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|   |        |                 | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NAMTRAU Norfolk, Norfolk, Virginia          |        |                 |       |     |      |     |      |     |      |     |      |     |
|   | NAVY   | ACDU            |       | 107 |      | 143 |      | 125 |      | 125 |      | 125 |
| NAMTRAU North Island, San Diego, California |        |                 |       |     |      |     |      |     |      |     |      |     |
|   | NAVY   | ACDU            |       | 102 |      | 85  |      | 85  |      | 85  |      | 85  |
|   |        | TOTAL:          |       | 209 |      | 228 |      | 210 |      | 210 |      | 210 |

**CIN, COURSE TITLE:** C-604-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration  
**COURSE LENGTH:** 1.0 Weeks **TOUR LENGTH:** 18 Months  
**ATTRITION FACTOR:** Navy: 5% **BACKOUT FACTOR:** 0.00

| TRAINING ACTIVITY                           | SOURCE | ACDU/TAR SELRES | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|---|--------|-----------------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|   |        |                 | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NAMTRAU Norfolk, Norfolk, Virginia          |        |                 |       |     |      |     |      |     |      |     |      |     |
|   | NAVY   | ACDU            |       | 141 |      | 188 |      | 164 |      | 164 |      | 164 |
| NAMTRAU North Island, San Diego, California |        |                 |       |     |      |     |      |     |      |     |      |     |
|   | NAVY   | ACDU            |       | 142 |      | 119 |      | 119 |      | 119 |      | 119 |
|   |        | TOTAL:          |       | 283 |      | 307 |      | 283 |      | 283 |      | 283 |

**CIN, COURSE TITLE:** C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic  
**COURSE LENGTH:** 1.6 Weeks **TOUR LENGTH:** 18 Months  
**ATTRITION FACTOR:** Navy: 5% **BACKOUT FACTOR:** 0.00

| TRAINING ACTIVITY                           | SOURCE | ACDU/TAR SELRES | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|---|--------|-----------------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|   |        |                 | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NAMTRAU Norfolk, Norfolk, Virginia          |        |                 |       |     |      |     |      |     |      |     |      |     |
|   | NAVY   | ACDU            |       | 248 |      | 330 |      | 289 |      | 289 |      | 289 |
| NAMTRAU North Island, San Diego, California |        |                 |       |     |      |     |      |     |      |     |      |     |
|   | NAVY   | ACDU            |       | 247 |      | 206 |      | 206 |      | 206 |      | 206 |
|   |        | TOTAL:          |       | 495 |      | 536 |      | 495 |      | 495 |      | 495 |

**II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS**

**CIN, COURSE TITLE:** C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear

**COURSE LENGTH:** 1.4 Weeks

**TOUR LENGTH:** 18 Months

**ATTRITION FACTOR:** Navy: 5%

**BACKOUT FACTOR:** 0.00

| TRAINING<br>ACTIVITY | SOURCE                              | ACDU/TAR<br>SELRES | CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |
|----------------------|-------------------------------------|--------------------|-------|-----|------|-----|------|-----|------|-----|------|-----|
|                      |                                     |                    | OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |
| NAMTRAU              | Norfolk, Norfolk, Virginia          |                    |       |     |      |     |      |     |      |     |      |     |
|                      | NAVY                                | ACDU               |       | 248 |      | 330 |      | 289 |      | 289 |      | 289 |
| NAMTRAU              | North Island, San Diego, California |                    |       |     |      |     |      |     |      |     |      |     |
|                      | NAVY                                | ACDU               |       | 247 |      | 206 |      | 206 |      | 206 |      | 206 |
|                      |                                     | TOTAL:             |       | 495 |      | 536 |      | 495 |      | 495 |      | 495 |

## **PART III - TRAINING REQUIREMENTS**

The following elements are not affected by the CV/CVN ALRE and, therefore, are not included in Part III of this NTSP:

III.A.1. Initial Training Requirements

III.A.2. Follow-on Training

III.A.2.b. Planned Courses

III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

**III.A.2. FOLLOW-ON TRAINING**

**III.A.2.a. EXISTING COURSES**

**CIN, COURSE TITLE:** C-604-2013, CV Catapult Electrician  
**TRAINING ACTIVITY:** NATTC Lakehurst  
**LOCATION, UIC:** Lakehurst, New Jersey, 63094

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 16  |      | 19  |      | 16  |      | 16  |      | 16  | ATIR       |
|       | 14  |      | 17  |      | 14  |      | 14  |      | 14  | Output     |
|       | 1.1 |      | 1.3 |      | 1.1 |      | 1.1 |      | 1.1 | AOB        |
|       | 1.1 |      | 1.3 |      | 1.1 |      | 1.1 |      | 1.1 | Chargeable |

**CIN, COURSE TITLE:** C-604-2014, Aircraft Launch and Recovery Equipment C13 Catapult Class C1  
**TRAINING ACTIVITY:** NATTC Lakehurst  
**LOCATION, UIC:** Lakehurst, New Jersey, 63094

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |      | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|------|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL  | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 82  |      | 92   |      | 81  |      | 81  |      | 81  | ATIR       |
|       | 74  |      | 83   |      | 73  |      | 73  |      | 73  | Output     |
|       | 9.4 |      | 10.5 |      | 9.3 |      | 9.3 |      | 9.3 | AOB        |
|       | 9.4 |      | 10.5 |      | 9.3 |      | 9.3 |      | 9.3 | Chargeable |

**CIN, COURSE TITLE:** C-604-2028, Aircraft Launch And Recovery Equipment Maintenance Technician  
**TRAINING ACTIVITY:** NATTC Lakehurst  
**LOCATION, UIC:** Lakehurst, New Jersey, 63094

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 20  |      | 21  |      | 19  |      | 19  |      | 19  | ATIR       |
|       | 18  |      | 19  |      | 17  |      | 17  |      | 17  | Output     |
|       | 4.6 |      | 4.8 |      | 4.4 |      | 4.4 |      | 4.4 | AOB        |
|       | 4.6 |      | 4.8 |      | 4.4 |      | 4.4 |      | 4.4 | Chargeable |

**III.A.2.a. EXISTING COURSES**

**CIN, COURSE TITLE:** C-604-2029, Aircraft Launch and Recovery Equipment Arresting Gear  
**TRAINING ACTIVITY:** NATTC Lakehurst  
**LOCATION, UIC:** Lakehurst, New Jersey, 63094

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 49  |      | 56  |      | 49  |      | 49  |      | 49  | ATIR       |
|       | 44  |      | 50  |      | 44  |      | 44  |      | 44  | Output     |
|       | 3.1 |      | 3.5 |      | 3.1 |      | 3.1 |      | 3.1 | AOB        |
|       | 3.1 |      | 3.5 |      | 3.1 |      | 3.1 |      | 3.1 | Chargeable |

**CIN, COURSE TITLE:** C-604-2011, Aircraft Launch and Recovery Equipment Maintenance Officer  
**TRAINING ACTIVITY:** NATTC Lakehurst  
**LOCATION, UIC:** Lakehurst, New Jersey, 63094

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
| 4     | 3   | 5    | 5   | 4    | 4   | 4    | 4   | 4    | 4   | ATIR       |
| 4     | 3   | 5    | 5   | 4    | 4   | 4    | 4   | 4    | 4   | Output     |
| 0.4   | 0.3 | 0.5  | 0.5 | 0.4  | 0.4 | 0.4  | 0.4 | 0.4  | 0.4 | AOB        |
| 0.4   | 0.3 | 0.5  | 0.5 | 0.4  | 0.4 | 0.4  | 0.4 | 0.4  | 0.4 | Chargeable |

**CIN, COURSE TITLE:** C-604-2016, Aircraft Launch and Recovery Refresher  
**TRAINING ACTIVITY:** NAMTRAU Norfolk  
**LOCATION, UIC:** Norfolk, Virginia, 46680

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 107 |      | 143 |      | 125 |      | 125 |      | 125 | ATIR       |
|       | 102 |      | 136 |      | 119 |      | 119 |      | 119 | Output     |
|       | 3.1 |      | 4.2 |      | 3.7 |      | 3.7 |      | 3.7 | AOB        |
|       | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 | Chargeable |

**TRAINING ACTIVITY:** NAMTRAU North Island  
**LOCATION, UIC:** San Diego, California, 39476

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 102 |      | 85  |      | 85  |      | 85  |      | 85  | ATIR       |
|       | 97  |      | 81  |      | 81  |      | 81  |      | 81  | Output     |
|       | 3.0 |      | 2.5 |      | 2.5 |      | 2.5 |      | 2.5 | AOB        |
|       | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 | Chargeable |

**III.A.2.a. EXISTING COURSES**

**CIN, COURSE TITLE:** C-604-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration  
**TRAINING ACTIVITY:** NAMTRAU Norfolk  
**LOCATION, UIC:** Norfolk, Virginia, 46680

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 141 |      | 188 |      | 164 |      | 164 |      | 164 | ATIR       |
|       | 134 |      | 179 |      | 156 |      | 156 |      | 156 | Output     |
|       | 1.9 |      | 2.5 |      | 2.2 |      | 2.2 |      | 2.2 | AOB        |
|       | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 | Chargeable |

**TRAINING ACTIVITY:** NAMTRAU North Island  
**LOCATION, UIC:** San Diego, California, 39476

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 142 |      | 119 |      | 119 |      | 119 |      | 119 | ATIR       |
|       | 135 |      | 113 |      | 113 |      | 113 |      | 113 | Output     |
|       | 1.9 |      | 1.6 |      | 1.6 |      | 1.6 |      | 1.6 | AOB        |
|       | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 | Chargeable |

**CIN, COURSE TITLE:** C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic  
**TRAINING ACTIVITY:** NAMTRAU Norfolk  
**LOCATION, UIC:** Norfolk, Virginia, 46680

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 248 |      | 330 |      | 289 |      | 289 |      | 289 | ATIR       |
|       | 236 |      | 314 |      | 275 |      | 275 |      | 275 | Output     |
|       | 6.6 |      | 8.8 |      | 7.7 |      | 7.7 |      | 7.7 | AOB        |
|       | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 | Chargeable |

**TRAINING ACTIVITY:** NAMTRAU North Island  
**LOCATION, UIC:** San Diego, California, 39476

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 247 |      | 206 |      | 206 |      | 206 |      | 206 | ATIR       |
|       | 235 |      | 196 |      | 196 |      | 196 |      | 196 | Output     |
|       | 6.6 |      | 5.5 |      | 5.5 |      | 5.5 |      | 5.5 | AOB        |
|       | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 | Chargeable |

**III.A.2.a. EXISTING COURSES**

**CIN, COURSE TITLE:** C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear  
**TRAINING ACTIVITY:** NAMTRAU Norfolk  
**LOCATION, UIC:** Norfolk, Virginia, 46680

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 248 |      | 330 |      | 289 |      | 289 |      | 289 | ATIR       |
|       | 236 |      | 314 |      | 275 |      | 275 |      | 275 | Output     |
|       | 6.0 |      | 7.9 |      | 6.9 |      | 6.9 |      | 6.9 | AOB        |
|       | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 | Chargeable |

**TRAINING ACTIVITY:** NAMTRAU North Island  
**LOCATION, UIC:** San Diego, California, 39476

**SOURCE:** NAVY                      **STUDENT CATEGORY:** ACDU - TAR

| CFY02 |     | FY03 |     | FY04 |     | FY05 |     | FY06 |     |            |
|-------|-----|------|-----|------|-----|------|-----|------|-----|------------|
| OFF   | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL | OFF  | ENL |            |
|       | 247 |      | 206 |      | 206 |      | 206 |      | 206 | ATIR       |
|       | 235 |      | 196 |      | 196 |      | 196 |      | 196 | Output     |
|       | 5.9 |      | 5.0 |      | 5.0 |      | 5.0 |      | 5.0 | AOB        |
|       | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 |      | 0.0 | Chargeable |

## **PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS**

The following elements are not affected by the CV/CVN ALRE and, therefore, are not included in Part IV of this NTSP:

IV.A. Training Hardware

IV.A.2. Training Devices

IV.B.1. Training Services

IV.C. Facility Requirements

IV.C.1. Facility Requirements Summary (Space/Support) by Activity

IV.C.2. Facility Requirements Detailed by Activity and Course

IV.C.3. Facility Project Summary by Program

#### IV.A. TRAINING HARDWARE

##### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

**CIN, COURSE TITLE:** C-604-2013, CV Catapult Electrician

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC:** Lakehurst, New Jersey, 63094

| ITEM NO.   | EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS  | QTY REQD | DATE REQD | GFE CFE | STATUS  |
|------------|--|----------|-----------|---------|---------|
| <b>TTE</b> |  |          |           |         |         |
| 004        | C-13 Catapult MOD1                         | 1        | Mar 90    | GFE     | Onboard |
| 005        | MK 7 MOD 3 Arresting Gear                  | 1        | Mar 90    | GFE     | Onboard |
| 025        | Lighted Deck Edge Panel                    | 1        | Mar 90    | GFE     | Onboard |
| 030        | Pressure Switch                            | 1        | Mar 90    | GFE     | Onboard |
| 037        | MK 7 MOD 0 Auxiliary JDB Control Box       | 1        | Mar 90    | GFE     | Onboard |
| 061        | Ground Fault Measuring Device Box Assembly | 1        | Mar 90    | GFE     | Onboard |
| 062        | Weight Assembly Confirmation               | 1        | Mar 90    | GFE     | Onboard |
| 063        | Light Box Assembly                         | 1        | Mar 90    | GFE     | Onboard |
| 064        | Electromagnetic Relay                      | 1        | Mar 90    | GFE     | Onboard |
| 065        | Encoder Shaft                              | 1        | Mar 90    | GFE     | Onboard |
| 066        | Brake Assembly Motor Unit                  | 1        | Mar 90    | GFE     | Onboard |
| 067        | Main Pump Push Switch                      | 1        | Mar 90    | GFE     | Onboard |
| 068        | Timer, Interval Clock                      | 1        | Mar 90    | GFE     | Onboard |
| 069        | Syncro Transmitter                         | 1        | Mar 90    | GFE     | Onboard |
| 070        | Limit Switch Assembly                      | 1        | Mar 90    | GFE     | Onboard |
| 071        | Syncro Receiver Transmitter                | 1        | Mar 90    | GFE     | Onboard |
| 072        | Push Switch                                | 1        | Mar 90    | GFE     | Onboard |
| 073        | JBD Control Box                            | 1        | Mar 90    | GFE     | Onboard |
| 074        | Auxiliary JBD Control Box                  | 1        | Mar 90    | GFE     | Onboard |
| 075        | CSV Center Deck Box                        | 1        | Mar 90    | GFE     | Onboard |

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

**CIN, COURSE TITLE:** C-604-2014, Aircraft Launch and Recovery Equipment C13 Catapult Class C1

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC:** Lakehurst, New Jersey, 63094

| <b>ITEM NO.</b> | <b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b> | <b>QTY REQD</b> | <b>DATE REQD</b> | <b>GFE CFE</b> | <b>STATUS</b> |
|-----------------|--|-----------------|------------------|----------------|---------------|
| <b>TTE</b>      |  |                 |                  |                |               |
| 004             | C-13 Catapult MOD1                               | 1               | Mar 90           | GFE            | Onboard       |
| 007             | Lock, Valve Assembly                             | 1               | Mar 90           | GFE            | Onboard       |
| 008             | S-3 Tension Bar                                  | 2               | Mar 90           | GFE            | Onboard       |
| 009             | Scale Assembly Knot Indicator Ruler              | 1               | Mar 90           | GFE            | Onboard       |
| 010             | A-6 Tension Bar                                  | 1               | Mar 90           | GFE            | Onboard       |
| 011             | Strock Timer Clock                               | 1               | Mar 90           | GFE            | Onboard       |
| 012             | Filtering Disk                                   | 1               | Mar 90           | GFE            | Onboard       |
| 013             | Module Assembly with Jet                         | 1               | Mar 90           | GFE            | Onboard       |
| 014             | Steam Plug Mock-Up                               | 1               | Mar 90           | GFE            | Onboard       |
| 015             | Grab Latch, Catapult                             | 1               | Mar 90           | GFE            | Onboard       |
| 016             | Snubber and Rod Assembly                         | 1               | Mar 90           | GFE            | Onboard       |
| 017             | Solenoid, Electrical Lock Valve                  | 1               | Mar 90           | GFE            | Onboard       |
| 018             | A-6 Trail Bar Holdback                           | 1               | Mar 90           | GFE            | Onboard       |
| 019             | Valve Bonnet Assembly                            | 1               | Mar 90           | GFE            | Onboard       |
| 020             | Steam Fluid Valve                                | 1               | Mar 90           | GFE            | Onboard       |
| 021             | Catapult Exhaust Valve with Hydraulic Actuator   | 1               | Mar 90           | GFE            | Onboard       |
| 022             | Accumulator Assembly                             | 1               | Mar 90           | GFE            | Onboard       |
| 023             | Shuttle Grab Assembly                            | 1               | Mar 90           | GFE            | Onboard       |
| 024             | Engine Assembly, Launching                       | 1               | Mar 90           | GFE            | Onboard       |
| 025             | Lighted Deck Edge Panel                          | 1               | Mar 90           | GFE            | Onboard       |

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

|           |                                      |   |        |     |         |
|-----------|--------------------------------------|---|--------|-----|---------|
| 026       | CV 63-65 Maintenance Control Console | 1 | Mar 90 | GFE | Onboard |
| 027       | Lighted Panel, Deck Edge Catapult    | 1 | Mar 90 | GFE | Onboard |
| 028       | Stroke Valve Launch Timer            | 1 | Mar 90 | GFE | Onboard |
| 029       | Launch Valve Control Piston          | 1 | Mar 90 | GFE | Onboard |
| 030       | Pressure Switch                      | 1 | Mar 90 | GFE | Onboard |
| 031       | Water Break Cylinder                 | 1 | Mar 90 | GFE | Onboard |
| 032       | Capacity Selection Valve             | 1 | Mar 90 | GFE | Onboard |
| 033       | Launch Valve Assembly                | 1 | Mar 90 | GFE | Onboard |
| 034       | Motorized Operator Valve             | 1 | Mar 90 | GFE | Onboard |
| 035       | Linear Actuating Cylinder, 21 Inch   | 1 | Mar 90 | GFE | Onboard |
| 036       | Digital Endspeed Indicator           | 1 | Mar 90 | GFE | Onboard |
| 037       | MK 7 MOD 0 Auxiliary JDB Control Box | 1 | Mar 90 | GFE | Onboard |
| 038       | Sealing Display Strip                | 1 | Mar 90 | GFE | Onboard |
| 039       | Portable JBD Control Box             | 1 | Mar 90 | GFE | Onboard |
| 040       | Catapult Launch Cylinder 9 inch      | 1 | Mar 90 | GFE | Onboard |
| <b>ST</b> |                                      |   |        |     |         |
| 346       | Eye Bolt A91477-11                   | 6 | Mar 90 | GFE | Onboard |

**CIN, COURSE TITLE:** C-604-2028, Aircraft Launch And Recovery Equipment Maintenance Technician

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC:** Lakehurst, New Jersey, 63094

| <b>ITEM NO.</b> | <b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b> | <b>QTY REQD</b> | <b>DATE REQD</b> | <b>GFE CFE</b> | <b>STATUS</b> |
|-----------------|--|-----------------|------------------|----------------|---------------|
| <b>TTE</b>      |  |                 |                  |                |               |
| 023             | Shuttle Grab Assembly                            | 1               | Mar 90           | GFE            | Onboard       |
| 032             | Capacity Selection Valve                         | 1               | Mar 90           | GFE            | Onboard       |
| 033             | Launch Valve Assembly                            | 1               | Mar 90           | GFE            | Onboard       |
| 048             | Control Valve Stem                               | 1               | Mar 90           | GFE            | Onboard       |

#### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

|           |                                |   |        |     |         |
|-----------|--------------------------------|---|--------|-----|---------|
| 049       | Control Valve Seat             | 1 | Mar 90 | GFE | Onboard |
| <b>ST</b> |                                |   |        |     |         |
| 302       | Pouring Cabinet Socket         | 1 | Mar 90 | GFE | Onboard |
| 303       | Portable Air Enricher Chamber  | 1 | Mar 90 | GFE | Onboard |
| 304       | Gas Furnace                    | 2 | Mar 90 | GFE | Onboard |
| 305       | Zinc Melting Ladle             | 2 | Mar 90 | GFE | Onboard |
| 306       | Blast Cleaning Cabinet         | 1 | Mar 90 | GFE | Onboard |
| 307       | Hottop Cutter Assembly         | 1 | Mar 90 | GFE | Onboard |
| 308       | Saddle Assembly Clamp Loop     | 2 | Mar 90 | GFE | Onboard |
| 309       | Installing Tool                | 3 | Mar 90 | GFE | Onboard |
| 310       | Launch Valve Table Lift        | 1 | Mar 90 | GFE | Onboard |
| 311       | Cable Clamp Wrench Assembly    | 2 | Mar 90 | GFE | Onboard |
| 312       | Electric Hot Plate             | 1 | Mar 90 | GFE | Onboard |
| 313       | Machinist Vice                 | 1 | Mar 90 | GFE | Onboard |
| 314       | Jacking Block Assembly         | 1 | Mar 90 | GFE | Onboard |
| 315       | Pipe Bracket 523009-2          | 1 | Mar 90 | GFE | Onboard |
| 316       | Pipe Bracket 523009-1          | 1 | Mar 90 | GFE | Onboard |
| 317       | Socket and Ram Tester Assembly | 1 | Mar 90 | GFE | Onboard |
| 318       | A Frame Gantry                 | 1 | Mar 90 | GFE | Onboard |
| 319       | Special Tool Cart              | 1 | Mar 90 | GFE | Onboard |
| 320       | Ultrasonic Degreaser           | 1 | Mar 90 | GFE | Onboard |
| 321       | Packing Inserter               | 1 | Mar 90 | GFE | Onboard |
| 322       | Segment Depressor              | 1 | Mar 90 | GFE | Onboard |
| 323       | Piston Tool Assembly           | 1 | Mar 90 | GFE | Onboard |
| 324       | Piston Ring Compressor         | 1 | Mar 90 | GFE | Onboard |
| 325       | Cylinder Removal Fixture       | 1 | Mar 90 | GFE | Onboard |

#### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

|     |  |   |        |     |         |
|-----|--|---|--------|-----|---------|
| 326 | Piston Support Spear                         | 1 | Mar 90 | GFE | Onboard |
| 327 | Gage, Water Brake                            | 1 | Mar 90 | GFE | Onboard |
| 328 | Tension Tool Assembly                        | 1 | Mar 90 | GFE | Onboard |
| 329 | Special Piston Rod Wrench                    | 1 | Mar 90 | GFE | Onboard |
| 330 | Piston Rod Open End Wrench 514329-2          | 1 | Mar 90 | GFE | Onboard |
| 331 | Piston Rod Open End Wrench 514239-3          | 1 | Mar 90 | GFE | Onboard |
| 332 | Piston Bolt Wrench                           | 1 | Mar 90 | GFE | Onboard |
| 333 | Spanner Wrench 87124-4                       | 1 | Mar 90 | GFE | Onboard |
| 334 | Spanner Wrench 422091-1                      | 1 | Mar 90 | GFE | Onboard |
| 335 | Choke Ring Wrench                            | 1 | Mar 90 | GFE | Onboard |
| 336 | Sheque Grove Gage                            | 1 | Mar 90 | GFE | Onboard |
| 337 | Engine Ram Holding Fixture                   | 2 | Mar 90 | GFE | Onboard |
| 338 | Insertion Fixture                            | 1 | Mar 90 | GFE | Onboard |
| 339 | Cylinder Assembly Support                    | 1 | Mar 90 | GFE | Onboard |
| 340 | Spanner Wrench 315414-1                      | 1 | Mar 90 | GFE | Onboard |
| 341 | Piston Removal Kit                           | 1 | Mar 90 | GFE | Onboard |
| 342 | Loop Clamp                                   | 2 | Mar 90 | GFE | Onboard |
| 343 | Sheave Damper Assembly Tool                  | 1 | Mar 90 | GFE | Onboard |
| 344 | Special Wrench 423376-1                      | 1 | Mar 90 | GFE | Onboard |
| 345 | Straight Headed Alignment Pin                | 2 | Mar 90 | GFE | Onboard |
| 347 | Shaft Puller                                 | 1 | Mar 90 | GFE | Onboard |
| 348 | Packing Gland Ejector                        | 1 | Mar 90 | GFE | Onboard |
| 349 | Union Nut Wrench 8F2239                      | 1 | Mar 90 | GFE | Onboard |
| 350 | Union Nut Wrench 2B1742                      | 1 | Mar 90 | GFE | Onboard |
| 351 | Weldment Aircraft Launching Bracket 626717-5 | 2 | Mar 90 | GFE | Onboard |

#### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

|     |  |   |        |     |         |
|-----|--|---|--------|-----|---------|
| 352 | Weldment Aircraft Launching Bracket 626717-1 | 2 | Mar 90 | GFE | Onboard |
| 353 | Micrometer 0-12 Inch                         | 2 | Mar 90 | GFE | Onboard |
| 354 | Tensiometer                                  | 3 | Mar 90 | GFE | Onboard |
| 355 | Pyrometer 0-1200 Degrees Fahrenheit          | 2 | Mar 90 | GFE | Onboard |
| 356 | Torque Wrench 0-250 Foot Pound               | 2 | Mar 90 | GFE | Onboard |
| 357 | Torque Wrench 0-600 Foot Pound               | 2 | Mar 90 | GFE | Onboard |
| 358 | Torque Wrench 0-1000 Foot Pound              | 2 | Mar 90 | GFE | Onboard |
| 359 | Vernier Caliper                              | 2 | Mar 90 | GFE | Onboard |
| 360 | Hydraulic Torque Machine                     | 1 | Mar 90 | GFE | Onboard |
| 361 | Caliper Micro Tube Type 1, 5-32 Inch         | 2 | Mar 90 | GFE | Onboard |
| 362 | Outside Caliper 0-1 Inch Range               | 2 | Mar 90 | GFE | Onboard |
| 363 | Outside Caliper 1-2 Inch Range               | 2 | Mar 90 | GFE | Onboard |
| 364 | Outside Caliper 2-3 Inch Range               | 2 | Mar 90 | GFE | Onboard |
| 365 | Outside Caliper 3-4 Inch Range               | 2 | Mar 90 | GFE | Onboard |
| 366 | Outside Caliper 4-5 Inch Range               | 2 | Mar 90 | GFE | Onboard |
| 367 | Outside Caliper 5-6 Inch Range               | 2 | Mar 90 | GFE | Onboard |
| 368 | Outside Caliper 7-8 Inch Range               | 2 | Mar 90 | GFE | Onboard |
| 369 | Outside Caliper 8-9 Inch Range               | 2 | Mar 90 | GFE | Onboard |
| 370 | Outside Caliper 9-12 Inch Range              | 2 | Mar 90 | GFE | Onboard |
| 371 | Outside Caliper 12-16 Inch Range             | 2 | Mar 90 | GFE | Onboard |
| 372 | Outside Caliper 16-20 Inch Range             | 2 | Mar 90 | GFE | Onboard |
| 373 | Outside Caliper 20-24 Inch Range             | 2 | Mar 90 | GFE | Onboard |

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

**CIN, COURSE TITLE:** C-604-2029, Aircraft Launch and Recovery Equipment Arresting Gear

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC:** Lakehurst, New Jersey, 63094

| <b>ITEM NO.</b> | <b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b> | <b>QTY REQD</b> | <b>DATE REQD</b> | <b>GFE CFE</b> | <b>STATUS</b> |
|-----------------|--|-----------------|------------------|----------------|---------------|
| <b>TTE</b>      |  |                 |                  |                |               |
| 005             | MK 7 MOD 3 Arresting Gear                        | 1               | Mar 90           | GFE            | Onboard       |
| 041             | Barricade Power Pack                             | 1               | Mar 90           | GFE            | Onboard       |
| 042             | Arresting Gear Barricade                         | 1               | Mar 90           | GFE            | Onboard       |
| 043             | Piston Road Damper Assembly                      | 2               | Mar 90           | GFE            | Onboard       |
| 044             | Cylinder Assembly 607955-1                       | 1               | Mar 90           | GFE            | Onboard       |
| 045             | Cylinder and Ram Assembly 63094-95-0051          | 1               | Mar 90           | GFE            | Onboard       |
| 046             | Cylinder and Ram Assembly                        | 1               | Mar 90           | GFE            | Onboard       |
| 047             | Fluid Cooler Repair Kit Status Board             | 1               | Mar 90           | GFE            | Onboard       |
| 048             | Control Valve Stem                               | 1               | Mar 90           | GFE            | Onboard       |
| 049             | Control Valve Seat                               | 1               | Mar 90           | GFE            | Onboard       |
| 050             | Special Screw 317310-1                           | 1               | Mar 90           | GFE            | Onboard       |
| 051             | Valve Stem Sleeve                                | 1               | Mar 90           | GFE            | Onboard       |
| 052             | Valve Cam  | 1               | Mar 90           | GFE            | Onboard       |
| 053             | Retractable Valve Stem                           | 1               | Mar 90           | GFE            | Onboard       |
| 054             | Retractable Valve Stem Seat                      | 1               | Mar 90           | GFE            | Onboard       |
| 055             | Flapper Control Valve                            | 1               | Mar 90           | GFE            | Onboard       |
| 056             | Shaft Sleeve A-497444                            | 1               | Mar 90           | GFE            | Onboard       |
| 057             | Screw Assembly retractable Sheave                | 1               | Mar 90           | GFE            | Onboard       |
| 058             | Retractable Sheave Worm Shaft                    | 1               | Mar 90           | GFE            | Onboard       |
| 059             | Retractable Valve Plunger                        | 1               | Mar 90           | GFE            | Onboard       |
| 060             | Strap Assembly 317439-1                          | 1               | Mar 90           | GFE            | Onboard       |

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

**CIN, COURSE TITLE:** C-604-2011, Aircraft Launch and Recovery Equipment Maintenance Officer

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC:** Lakehurst, New Jersey, 63094

| ITEM NO.   | EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS       | QTY REQD | DATE REQD | GFE CFE | STATUS  |
|------------|---|----------|-----------|---------|---------|
| <b>TTE</b> |   |          |           |         |         |
| 002        | Fresnel Lens Optical Landing System MK 6 MOD3   | 1        | Mar 90    | GFE     | Onboard |
| 003        | Landing Signal Officer Heads-Up Display Console | 1        | Mar 90    | GFE     | Onboard |
| 004        | C-13 Catapult MOD1                              | 1        | Mar 90    | GFE     | Onboard |
| 005        | MK 7 MOD 3 Arresting Gear                       | 1        | Mar 90    | GFE     | Onboard |
| 006        | CV Configured LSO Workstation                   | 1        | Jan 00    | GFE     | Pending |

**CIN, COURSE TITLE:** C-604-2016, Aircraft Launch and Recovery Equipment Refresher

**TRAINING ACTIVITY:** NAMTRAU Norfolk

**LOCATION, UIC:** Norfolk, Virginia, 46680

| ITEM NO.   | EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS | QTY REQD | DATE REQD | GFE CFE | STATUS  |
|------------|---|----------|-----------|---------|---------|
| <b>TTE</b> |   |          |           |         |         |
| 076        | Catapult Control Station Board            | 1        | May 90    | GFE     | Onboard |
| 077        | Catapult Launch Sequence Device           | 1        | May 90    | GFE     | Onboard |
| 078        | Catapult Rotary Launch Valve              | 1        | May 90    | GFE     | Onboard |
| 079        | Catapult Capacity Selector Valve          | 1        | May 90    | GFE     | Onboard |
| <b>ST</b>  |   |          |           |         |         |
| 374        | Micrometer Outside Caliper                | 1        | May 90    | GFE     | Onboard |

**CIN, COURSE TITLE:** C-604-2016, Aircraft Launch and Recovery Equipment Refresher

**TRAINING ACTIVITY:** NAMTRAU North Island

**LOCATION, UIC:** San Diego, California, 39476

| ITEM NO.   | EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS | QTY REQD | DATE REQD | GFE CFE | STATUS  |
|------------|---|----------|-----------|---------|---------|
| <b>TTE</b> |   |          |           |         |         |
| 076        | Catapult Control Station Board            | 1        | May 90    | GFE     | Onboard |
| 077        | Catapult Launch Sequence Device           | 1        | May 90    | GFE     | Onboard |

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

|           |                                  |   |        |     |         |
|-----------|----------------------------------|---|--------|-----|---------|
| 078       | Catapult Rotary Launch Valve     | 1 | May 90 | GFE | Onboard |
| 079       | Catapult Capacity selector Valve | 1 | May 90 | GFE | Onboard |
| <b>ST</b> |                                  |   |        |     |         |
| 374       | Micrometer Outside Caliper       | 1 | May 90 | GFE | Onboard |

**CIN, COURSE TITLE:** C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic  
**TRAINING ACTIVITY:** NAMTRAU Norfolk  
**LOCATION, UIC:** Norfolk, Virginia, 46680

| ITEM NO.    | EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS | QTY REQD | DATE REQD | GFE CFE | STATUS  |
|-------------|---|----------|-----------|---------|---------|
| <b>TTE</b>  |   |          |           |         |         |
| 076         | Catapult Control Station Board            | 1        | May 90    | GFE     | Onboard |
| 077         | Catapult Launch Sequence Device           | 1        | May 90    | GFE     | Onboard |
| 078         | Catapult Rotary Launch Valve              | 1        | May 90    | GFE     | Onboard |
| 079         | Catapult Capacity Selector Valve          | 1        | May 90    | GFE     | Onboard |
| 080         | MK 2 Nose Gear Launch Assembly            | 1        | May 90    | GFE     | Onboard |
| <b>GPTE</b> |   |          |           |         |         |
| 375         | Depth Micrometer                          | 1        | May 90    | GFE     | Onboard |
| <b>ST</b>   |   |          |           |         |         |
| 374         | Micrometer Outside Caliper                | 1        | May 90    | GFE     | Onboard |

**CIN, COURSE TITLE:** C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic  
**TRAINING ACTIVITY:** NAMTRAU North Island  
**LOCATION, UIC:** San Diego, California, 39476

| ITEM NO.   | EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS | QTY REQD | DATE REQD | GFE CFE | STATUS  |
|------------|---|----------|-----------|---------|---------|
| <b>TTE</b> |   |          |           |         |         |
| 076        | Catapult Control Station Board            | 1        | May 90    | GFE     | Onboard |
| 077        | Catapult Launch Sequence Device           | 1        | May 90    | GFE     | Onboard |
| 078        | Catapult Rotary Launch Valve              | 1        | May 90    | GFE     | Onboard |
| 079        | Catapult Capacity Selector Valve          | 1        | May 90    | GFE     | Onboard |
| 080        | MK 2 Nose Gear Launch Assembly            | 1        | May 90    | GFE     | Onboard |

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

**GPTE**

375 Depth Micrometer 1 May 90 GFE Onboard

**ST**

374 Micrometer Outside Caliper 1 May 90 GFE Onboard

**CIN, COURSE TITLE:** C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear

**TRAINING ACTIVITY:** NAMTRAU Norfolk

**LOCATION, UIC:** Norfolk, Virginia, 46680

| ITEM NO. | EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS | QTY REQD | DATE REQD | GFE CFE | STATUS |
|----------|---|----------|-----------|---------|--------|
|----------|---|----------|-----------|---------|--------|

**TTE**

379 Wire Rope Pouring Station 1 May 90 GFE Onboard

**ST**

376 Straightening Tube 1 May 90 GFE Onboard

377 Tube, Strand Separator 1 May 90 GFE Onboard

378 Tube Bender 1 May 90 GFE Onboard

**CIN, COURSE TITLE:** C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear

**TRAINING ACTIVITY:** NAMTRAU North Island

**LOCATION, UIC:** San Diego, California, 39476

| ITEM NO. | EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS | QTY REQD | DATE REQD | GFE CFE | STATUS |
|----------|---|----------|-----------|---------|--------|
|----------|---|----------|-----------|---------|--------|

**TTE**

379 Wire Rope Pouring Station 1 May 90 GFE Onboard

**ST**

376 Straightening Tube 1 May 90 GFE Onboard

377 Tube, Strand Separator 1 May 90 GFE Onboard

378 Tube Bender 1 May 90 GFE Onboard

**IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS**

**CIN, COURSE TITLE:** C-604-2013, CV Catapult Electrician

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC:** Lakehurst, New Jersey, 63094

| TYPES OF MATERIAL OR AID                        | QTY    | DATE   | STATUS  |
|---|--------|--------|---------|
|   | REQD   | REQD   |         |
| Curriculum Outline                              | 10     | May 90 | Onboard |
| Instructor Guide                                | 2      | May 90 | Onboard |
| Lesson Guide                                    | 4      | May 90 | Onboard |
| Prevailed Modula Electromagnetic Relay FC400-78 | 1      | Mar 90 | Onboard |
| Projector Screen                                | 1      | Mar 90 | Onboard |
| Still Projector                                 | 1      | Mar 90 | Onboard |
| Student Guide                                   | 30     | May 90 | Onboard |
| Student Test                                    | 30     | May 90 | Onboard |
| Television                                      | 1      | Mar 90 | Onboard |
| Transparencies                                  | 2 Sets | May 90 | Onboard |
| Video Cassette Player                           | 1      | Mar 90 | Onboard |

**CIN, COURSE TITLE:** C-604-2014, Aircraft Launch and Recovery Equipment C13 Catapult Class C1

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC:** Lakehurst, New Jersey, 63094

| TYPES OF MATERIAL OR AID | QTY    | DATE   | STATUS  |
|--------------------------|--------|--------|---------|
|                          | REQD   | REQD   |         |
| Curriculum Outline       | 10     | May 90 | Onboard |
| Instructor Guide         | 2      | May 90 | Onboard |
| Lesson Guide             | 4      | May 90 | Onboard |
| Overhead Projector       | 2      | Mar 90 | Onboard |
| Projector Screen         | 1      | Mar 90 | Onboard |
| Student Guide            | 30     | May 90 | Onboard |
| Student Test             | 30     | May 90 | Onboard |
| Television               | 1      | Mar 90 | Onboard |
| Transparencies           | 4 Sets | May 90 | Onboard |
| Video Cassette Recorder  | 1      | Mar 90 | Onboard |
| Video Cassette Player    | 1      | Mar 90 | Onboard |
| Video Monitor            | 1      | Mar 90 | Onboard |

**CIN, COURSE TITLE:** C-604-2028, Aircraft Launch And Recovery Equipment Maintenance Technician

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC:** Lakehurst, New Jersey, 63094

| TYPES OF MATERIAL OR AID | QTY    | DATE   | STATUS  |
|--------------------------|--------|--------|---------|
|                          | REQD   | REQD   |         |
| Curriculum Outline       | 10     | May 90 | Onboard |
| Instructor Guide         | 2      | May 90 | Onboard |
| Lesson Guide             | 4      | May 90 | Onboard |
| Student Guide            | 30     | May 90 | Onboard |
| Student Test             | 30     | May 90 | Onboard |
| Transparencies           | 8 Sets | May 90 | Onboard |

**IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS**

**CIN, COURSE TITLE:** C-604-2029, Aircraft Launch and Recovery Equipment Arresting Gear

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC:** Lakehurst, New Jersey, 63094

| <b>TYPES OF MATERIAL OR AID</b> | <b>QTY<br/>REQD</b> | <b>DATE<br/>REQD</b> | <b>STATUS</b> |
|---------------------------------|---------------------|----------------------|---------------|
| Curriculum Outline              | 10                  | May 90               | Onboard       |
| Instructor Guide                | 2                   | May 90               | Onboard       |
| Lesson Guide                    | 4                   | May 90               | Onboard       |
| Still Projector                 | 1                   | Mar 90               | Onboard       |
| Student Guide                   | 30                  | May 90               | Onboard       |
| Student Test                    | 30                  | May 90               | Onboard       |
| Television                      | 1                   | Mar 90               | Onboard       |
| Transparencies                  | 5 Sets              | May 90               | Onboard       |
| Video Cassette Player           | 1                   | Mar 90               | Onboard       |

**CIN, COURSE TITLE:** C-604-2011, Aircraft Launch and Recovery Equipment Maintenance Officer

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC:** Lakehurst, New Jersey, 63094

| <b>TYPES OF MATERIAL OR AID</b> | <b>QTY<br/>REQD</b> | <b>DATE<br/>REQD</b> | <b>STATUS</b> |
|---------------------------------|---------------------|----------------------|---------------|
| Curriculum Outline              | 10                  | May 90               | Onboard       |
| Instructor Guide                | 2                   | May 90               | Onboard       |
| Lesson Guide                    | 4                   | May 90               | Onboard       |
| Projector Screen                | 1                   | Mar 90               | Onboard       |
| Still Projector                 | 1                   | Mar 90               | Onboard       |
| Student Guide                   | 30                  | May 90               | Onboard       |
| Student Test                    | 30                  | May 90               | Onboard       |
| Transparencies                  | 6 Sets              | May 90               | Onboard       |

**CIN, COURSE TITLE:** C-604-2016, Aircraft Launch and Recovery Equipment Refresher

**TRAINING ACTIVITY:** NAMTRAU Norfolk

**LOCATION, UIC:** Norfolk, Virginia, 46680

| <b>TYPES OF MATERIAL OR AID</b> | <b>QTY<br/>REQD</b> | <b>DATE<br/>REQD</b> | <b>STATUS</b> |
|---------------------------------|---------------------|----------------------|---------------|
| Instructor Guide                | 1                   | May 90               | Onboard       |
| Overhead Projector              | 1                   | May 90               | Onboard       |
| Student Guide                   | 20                  | May 90               | Onboard       |
| Transparencies                  | 4 Sets              | May 90               | Onboard       |

**CIN, COURSE TITLE:** C-604-2016, Aircraft Launch and Recovery Equipment Refresher

**TRAINING ACTIVITY:** NAMTRAU North Island

**LOCATION, UIC:** San Diego, California, 39476

| <b>TYPES OF MATERIAL OR AID</b> | <b>QTY<br/>REQD</b> | <b>DATE<br/>REQD</b> | <b>STATUS</b> |
|---------------------------------|---------------------|----------------------|---------------|
| Instructor Guide                | 1                   | May 90               | Onboard       |
| Overhead Projector              | 1                   | May 90               | Onboard       |
| Student Guide                   | 20                  | May 90               | Onboard       |
| Transparencies                  | 4 Sets              | May 90               | Onboard       |

**IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS**

**CIN, COURSE TITLE:** C-604-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration

**TRAINING ACTIVITY:** NAMTRAU Norfolk

**LOCATION, UIC:** Norfolk, Virginia, 46680

| TYPES OF MATERIAL OR AID | QTY    | DATE   | STATUS  |
|--------------------------|--------|--------|---------|
|                          | REQD   | REQD   |         |
| Instructor Guide         | 2      | May 90 | Onboard |
| Overhead Projector       | 1      | May 90 | Onboard |
| Student Guide            | 15     | May 90 | Onboard |
| Transparencies           | 2 Sets | May 90 | Onboard |

**CIN, COURSE TITLE:** C-604-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration

**TRAINING ACTIVITY:** NAMTRAU North Island

**LOCATION, UIC:** San Diego, California, 39476

| TYPES OF MATERIAL OR AID | QTY    | DATE   | STATUS  |
|--------------------------|--------|--------|---------|
|                          | REQD   | REQD   |         |
| Instructor Guide         | 2      | May 90 | Onboard |
| Overhead Projector       | 1      | May 90 | Onboard |
| Student Guide            | 15     | May 90 | Onboard |
| Transparencies           | 2 Sets | May 90 | Onboard |

**CIN, COURSE TITLE:** C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic

**TRAINING ACTIVITY:** NAMTRAU Norfolk

**LOCATION, UIC:** Norfolk, Virginia, 46680

| TYPES OF MATERIAL OR AID | QTY    | DATE   | STATUS  |
|--------------------------|--------|--------|---------|
|                          | REQD   | REQD   |         |
| Instructor Guide         | 1      | May 90 | Onboard |
| Overhead Projector       | 1      | May 90 | Onboard |
| Student Guide            | 20     | May 90 | Onboard |
| Transparencies           | 4 Sets | May 90 | Onboard |

**CIN, COURSE TITLE:** C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic

**TRAINING ACTIVITY:** NAMTRAU North Island

**LOCATION, UIC:** San Diego, California, 39476

| TYPES OF MATERIAL OR AID | QTY    | DATE   | STATUS  |
|--------------------------|--------|--------|---------|
|                          | REQD   | REQD   |         |
| Instructor Guide         | 1      | May 90 | Onboard |
| Overhead Projector       | 1      | May 90 | Onboard |
| Student Guide            | 20     | May 90 | Onboard |
| Transparencies           | 4 Sets | May 90 | Onboard |

**CIN, COURSE TITLE:** C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear

**TRAINING ACTIVITY:** NAMTRAU Norfolk

**LOCATION, UIC:** Norfolk, Virginia, 46680

| TYPES OF MATERIAL OR AID                     | QTY    | DATE   | STATUS  |
|--|--------|--------|---------|
|  | REQD   | REQD   |         |
| Arresting Gear CROV Valve Mock-up            | 1      | May 90 | Onboard |
| Arresting Gear Fluid Transfer System Mock-up | 1      | May 90 | Onboard |
| Instructor Guide                             | 2      | May 90 | Onboard |
| Overhead Projector                           | 1      | May 90 | Onboard |
| Student Guide                                | 20     | May 90 | Onboard |
| Transparencies                               | 2 sets | May 90 | Onboard |

**IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS**

**CIN, COURSE TITLE:** C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear

**TRAINING ACTIVITY:** NAMTRAU North Island

**LOCATION, UIC:** San Diego, California, 39476

| <b>TYPES OF MATERIAL OR AID</b>              | <b>QTY<br/>REQD</b> | <b>DATE<br/>REQD</b> | <b>STATUS</b> |
|--|---------------------|----------------------|---------------|
| Arresting Gear CROV Valve Mock-up            | 1                   | May 90               | Onboard       |
| Arresting Gear Fluid Transfer System Mock-up | 1                   | May 90               | Onboard       |
| Instructor Guide                             | 2                   | May 90               | Onboard       |
| Overhead Projector                           | 1                   | May 90               | Onboard       |
| Student Guide                                | 20                  | May 90               | Onboard       |
| Transparencies                               | 2 sets              | May 90               | Onboard       |

**IV.B.3. TECHNICAL MANUALS**

**CIN, COURSE TITLE:** C-604-2013, CV Catapult Electrician

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC :** Lakehurst, New Jersey, 63094

| <b>TECHNICAL MANUAL NUMBER / TITLE</b>   | <b>MEDIUM</b> | <b>QTY REQD</b> | <b>DATE REQD</b> | <b>STATUS</b> |
|--|---------------|-----------------|------------------|---------------|
| NAVAIR 00-25-100<br>Technical Publications Library Management                                    | Hard copy     | 2               | Mar 90           | Onboard       |
| NAVAIR 51-15ABB-1<br>MK 13 MOD 0 Catapult Operation  | Hard copy     | 15              | Mar 90           | Onboard       |
| NAVAIR 51-15ABB-2<br>MK 13 MOD 0 Catapult Maintenance and Overhaul                               | Hard copy     | 2               | Mar 90           | Onboard       |
| NAVAIR 51-15ABB-3<br>MK 13 MOD 0 Catapult IPB  | Hard copy     | 2               | Mar 90           | Onboard       |
| NAVAIR 51-15ABC-1<br>Operating Instructions, Catapult Type C MK 13, and MK 13-1                  | Hard copy     | 15              | Mar 90           | Onboard       |
| NAVAIR 51-15ABC-2<br>Maintenance and Overhaul Instructions, Catapults, Type C MK 13, and MK 13-1 | Hard copy     | 2               | Mar 90           | Onboard       |
| NAVAIR 51-15ABC-3<br>IPB Catapult Type C MK 13, and Type C MK 13-1                               | Hard copy     | 2               | Mar 90           | Onboard       |
| NAVAIR 51-15ABC-4<br>Forward ICCS Operation and Maintenance with IPB                             | Hard copy     | 2               | Mar 90           | Onboard       |
| NAVAIR 51-15ABC-5<br>Deck Edge ICCS Operation and Maintenance with IPB                           | Hard copy     | 2               | Mar 90           | Onboard       |
| NAVAIR 51-15ABD-1<br>Catapult Operation Instructions Type C MK 13-1                              | Hard copy     | 2               | Mar 90           | Onboard       |
| NAVAIR 51-15ABD-2<br>CVN 68-73 Catapult Operating Instruction                                    | Hard copy     | 15              | Mar 90           | Onboard       |
| NAVAIR 51-15ABD-3<br>IPB for Type C MK 13-1 Catapult   | Hard copy     | 2               | Mar 90           | Onboard       |
| NAVAIR 51-15ABE-1<br>CSV Operation, Maintenance, and Overhaul with IPB                           | Hard copy     | 2               | Mar 90           | Onboard       |
| NAVAIR 51-15ABE-2<br>Digital Endspped Indicator Maintenance                                      | Hard copy     | 2               | Mar 90           | Onboard       |

### IV.B.3. TECHNICAL MANUALS

|   |           |   |        |         |
|---|-----------|---|--------|---------|
| NAVAIR 51-25-19<br>MK 2 Nose Gear Launch Operations, Maintenance, and Overhaul with IPB           | Hard copy | 2 | Mar 90 | Onboard |
| NAVAIR 51-50ABA-2<br>Visual Landing Aids on Aircraft Carriers                                     | Hard copy | 2 | Mar 90 | Onboard |
| NAVAIR 51-5BBA-1.1<br>MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul              | Hard copy | 2 | Mar 90 | Onboard |
| NAVAIR 51-5BBA-1.2<br>MK 7 MOD 2 Arresting Gear IPB   | Hard copy | 2 | Mar 90 | Onboard |
| NAVAIR 51-5BCA-1.1<br>MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul              | Hard copy | 2 | Mar 90 | Onboard |
| NAVAIR 51-5BCA-1.2<br>MK 7 MOD 3 Arresting Gear IPB   | Hard copy | 2 | Mar 90 | Onboard |
| NAVAIR 51-70-3<br>Deflector, Jet Blast, MK 7 MOD 0, Operation, Maintenance, and Overhaul with IPB | Hard copy | 2 | Mar 90 | Onboard |
| NAVAIR51-5-27<br>MK 2 and MK 4 Bridle Arrestor Maintenance  | Hard copy | 2 | Mar 90 | Onboard |

**CIN, COURSE TITLE:** C-604-2014, Aircraft Launch and Recovery Equipment C 13 Catapult Class C1

**TRAINING ACTIVITY:** NATTC Lakehurst

**LOCATION, UIC :** Lakehurst, New Jersey, 63094

| TECHNICAL MANUAL NUMBER / TITLE                                       | MEDIUM    | QTY REQD | DATE REQD | STATUS  |
|---|-----------|----------|-----------|---------|
| NAVAIR 00-25-100<br>Technical Publications Library Management         | Hard copy | 1        | Mar 90    | Onboard |
| NAVAIR 51-15AAA-1<br>Type C MK 7/11 Catapult Operation                | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15AAA-2<br>Type C MK 7/11 Catapult Maintenance and Overhaul | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15AAA-3<br>Type C MK 7/11 Catapult IPB                      | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15ABB-1<br>MK 13 MOD 0 Catapult Operation                   | Hard copy | 5        | Mar 90    | Onboard |

**IV.B.3. TECHNICAL MANUALS**

|  |           |   |        |         |
|--|-----------|---|--------|---------|
| NAVAIR 51-15ABB-2<br>MK 13 MOD 0 Catapult Maintenance and Overhaul                               | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-15ABB-3<br>MK 13 MOD 0 Catapult IPB  | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-15ABC-1<br>Operating Instructions, Catapult Type C MK 13, and MK 13-1                  | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-15ABC-2<br>Maintenance and Overhaul Instructions, Catapults, Type C MK 13, and MK 13-1 | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-15ABC-3<br>IPB Catapult Type C MK 13, and Type C MK 13-1                               | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-15ABD-1<br>Catapult Operation Instructions Type C MK 13-1                              | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-15ABD-2<br>CVN 68-73 Catapult Operating Instruction                                    | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-15ABD-3<br>IPB for Type C MK 13-1 Catapult   | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-15ABE-1<br>CSV Operation, Maintenance, and Overhaul with IPB                           | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-5-32<br>Corrosion Control Handbook for Shipboard Launch and Recovery Systems           | Hard copy | 1 | Mar 90 | Onboard |

**CIN, COURSE TITLE:** C-604-2028, Aircraft Launch And Recovery Equipment Maintenance Technician  
**TRAINING ACTIVITY:** NATTC Lakehurst  
**LOCATION, UIC :** Lakehurst, New Jersey, 63094

| <b>TECHNICAL MANUAL NUMBER / TITLE</b>  | <b>MEDIUM</b> | <b>QTY REQD</b> | <b>DATE REQD</b> | <b>STATUS</b> |
|---|---------------|-----------------|------------------|---------------|
| NAVAIR 00-25-100<br>Technical Publications Library Management                   | Hard copy     | 1               | Mar 90           | Onboard       |
| NAVAIR 51-15ABB-2<br>MK 13 MOD 0 Catapult Maintenance and Overhaul              | Hard copy     | 1               | Mar 90           | Onboard       |
| NAVAIR 51-15ABC-1<br>Operating Instructions, Catapult Type C MK 13, and MK 13-1 | Hard copy     | 1               | Mar 90           | Onboard       |

**IV.B.3. TECHNICAL MANUALS**

|   |           |   |        |         |
|---|-----------|---|--------|---------|
| NAVAIR 51-15ABC-2<br>Maintenance and Overhaul Instructions, Catapults, Type C MK 13,<br>and MK 13-1 | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-15ABC-3<br>IPB Catapult Type C MK 13, and Type C MK 13-1                                  | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-15ABD-1<br>Catapult Operation Instructions Type C MK 13-1                                 | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-15ABD-3<br>IPB for Type C MK 13-1 Catapult  | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-5-32<br>Corrosion Control Handbook for Shipboard Launch and Recovery<br>Systems           | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-5BBA-1.1<br>MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul                | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-5BBA-1.2<br>MK 7 MOD 2 Arresting Gear IPB   | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-5BCA-1.2<br>MK 7 MOD 3 Arresting Gear IPB   | Hard copy | 1 | Mar 90 | Onboard |

**CIN, COURSE TITLE:** C-604-2029, Aircraft Launch and Recovery Equipment Arresting Gear  
**TRAINING ACTIVITY:** NATTC Lakehurst  
**LOCATION, UIC :** Lakehurst, New Jersey, 63094

| <b>TECHNICAL MANUAL NUMBER / TITLE</b>  | <b>MEDIUM</b> | <b>QTY<br/>REQD</b> | <b>DATE<br/>REQD</b> | <b>STATUS</b> |
|---|---------------|---------------------|----------------------|---------------|
| NAVAIR 00-80T-105<br>Aircraft Carrier NATOPS Manual                                       | Hard copy     | 1                   | Mar 90               | Onboard       |
| NAVAIR 51-5-32<br>Corrosion Control Handbook for Shipboard Launch and Recovery<br>Systems | Hard copy     | 1                   | Mar 90               | Onboard       |
| NAVAIR 51-5BBA-1.1<br>MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul      | Hard copy     | 5                   | Mar 90               | Onboard       |
| NAVAIR 51-5BBA-1.2<br>MK 7 MOD 2 Arresting Gear IPB                                       | Hard copy     | 5                   | Mar 90               | Onboard       |

**IV.B.3. TECHNICAL MANUALS**

NAVAIR 51-5BCA-1.1 Hard copy 5 Mar 90 Onboard  
 MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul

NAVAIR 51-5BCA-1.2 Hard copy 5 Mar 90 Onboard  
 MK 7 MOD 3 Arresting Gear IPB

**CIN, COURSE TITLE:** C-604-2011, Aircraft Launch and Recovery Equipment Maintenance Officer  
**TRAINING ACTIVITY:** NATTC Lakehurst  
**LOCATION, UIC :** Lakehurst, New Jersey, 63094

| TECHNICAL MANUAL NUMBER / TITLE  | MEDIUM    | QTY REQD | DATE REQD | STATUS  |
|--|-----------|----------|-----------|---------|
| NAVAIR 00-25-100<br>Technical Publications Library Management                                    | Hard copy | 1        | Mar 90    | Onboard |
| NAVAIR 00-80R-14-1<br>NATOPS Aircraft Emergency Rescue Information Manual                        | Hard copy | 1        | Mar 90    | Onboard |
| NAVAIR 51-15AAA-1<br>Type C MK 7/11 Catapult Operation   | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15AAA-2<br>Type C MK 7/11 Catapult Maintenance and Overhaul                            | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15AAA-3<br>Type C MK 7/11 Catapult IPB   | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15ABB-1<br>MK 13 MOD 0 Catapult Operation  | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15ABB-2<br>MK 13 MOD 0 Catapult Maintenance and Overhaul                               | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15ABB-3<br>MK 13 MOD 0 Catapult IPB  | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15ABC-1<br>Operating Instructions, Catapult Type C MK 13, and MK 13-1                  | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15ABC-2<br>Maintenance and Overhaul Instructions, Catapults, Type C MK 13, and MK 13-1 | Hard copy | 5        | Mar 90    | Onboard |
| NAVAIR 51-15ABC-3<br>IPB Catapult Type C MK 13, and Type C MK 13-1                               | Hard copy | 5        | Mar 90    | Onboard |

### IV.B.3. TECHNICAL MANUALS

|  |           |   |        |         |
|--|-----------|---|--------|---------|
| NAVAIR 51-15ABD-1<br>Catapult Operation Instructions Type C MK 13-1  | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-15ABD-3<br>IPB for Type C MK 13-1 Catapult   | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-25-501<br>Catapult Vickers Pump Manual   | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-40-8-1<br>Low Light Level Television System Operation, Maintenance, and Overhaul Manual with IPB                     | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-40-ACA-2<br>Manually Operated Visual Landing Aid System Installation, Operation and Maintenance Instruction with IPB | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-40ABA-10<br>Fresnel Lens Optical Landing System MK 6 MOD 3 Installation, Service, Operation and Maintenance Manual   | Hard copy | 2 | Mar 90 | Onboard |
| NAVAIR 51-5-32<br>Corrosion Control Handbook for Shipboard Launch and Recovery Systems   | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-50ABA-2<br>Visual Landing Aids on Aircraft Carriers  | Hard copy | 2 | Mar 90 | Onboard |
| NAVAIR 51-60-8-1<br>ILARTS Operation, Maintenance, and Overhaul with IPB   | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-60-9<br>MK 1 MOD 0 LSO HUD Maintenance and Overhaul Manual with IPB  | Hard copy | 1 | Mar 90 | Onboard |
| NAVAIR 51-70-3<br>Deflector, Jet Blast, MK 7 MOD 0, Operation, Maintenance, and Overhaul with IPB                              | Hard copy | 5 | Mar 90 | Onboard |
| NAVAIR 51-70-5<br>Deflector, Jet Blast, MK 6 MOD 0, Operator, Maintenance, and Overhaul with IPB                               | Hard copy | 5 | Mar 90 | Onboard |

**IV.B.3. TECHNICAL MANUALS**

**CIN, COURSE TITLE:** C-604-2016, Aircraft Launch and Recovery Equipment Refresher  
**TRAINING ACTIVITY:** NAMTRAU Norfolk  
**LOCATION, UIC :** Norfolk, Virginia, 46680

| TECHNICAL MANUAL NUMBER / TITLE                                    | MEDIUM    | QTY REQD | DATE REQD | STATUS  |
|--|-----------|----------|-----------|---------|
| NAVAIR 51-15ABB-1<br>MK 13 MOD 0 Catapult Operation                | Hard copy | 20       | May 90    | Onboard |
| NAVAIR 51-15ABB-2<br>MK 13 MOD 0 Catapult Maintenance and Overhaul | Hard copy | 20       | May 90    | Onboard |
| NAVAIR 51-15ABB-3<br>MK 13 MOD 0 Catapult IPB                      | Hard copy | 20       | May 90    | Onboard |

**CIN, COURSE TITLE:** C-604-2016, Aircraft Launch and Recovery Equipment Refresher  
**TRAINING ACTIVITY:** NAMTRAU North Island  
**LOCATION, UIC :** San Diego, California, 39476

| TECHNICAL MANUAL NUMBER / TITLE                                    | MEDIUM    | QTY REQD | DATE REQD | STATUS  |
|--|-----------|----------|-----------|---------|
| NAVAIR 51-15ABB-1<br>MK 13 MOD 0 Catapult Operation                | Hard copy | 20       | May 90    | Onboard |
| NAVAIR 51-15ABB-2<br>MK 13 MOD 0 Catapult Maintenance and Overhaul | Hard copy | 20       | May 90    | Onboard |
| NAVAIR 51-15ABB-3<br>MK 13 MOD 0 Catapult IPB                      | Hard copy | 20       | May 90    | Onboard |

**CIN, COURSE TITLE:** C-604-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration  
**TRAINING ACTIVITY:** NAMTRAU Norfolk  
**LOCATION, UIC :** Norfolk, Virginia, 46680

| TECHNICAL MANUAL NUMBER / TITLE  | MEDIUM    | QTY REQD | DATE REQD | STATUS  |
|--|-----------|----------|-----------|---------|
| NAVAIR 51-15ABB-2<br>MK 13 MOD 0 Catapult Maintenance and Overhaul                   | Hard copy | 5        | May 90    | Onboard |
| NAVAIR 51-5BBA-1.1<br>MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul | Hard copy | 5        | May 90    | Onboard |
| NAVAIR 51-5BCA-1.1<br>MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul | Hard copy | 1        | May 90    | Onboard |

**IV.B.3. TECHNICAL MANUALS**

NAVAIR 51-70-3 Hard copy 5 May 90 Onboard  
 Deflector, Jet Blast, MK 7 MOD 0, Operation, Maintenance, and Overhaul with IPB

**CIN, COURSE TITLE:** C-604-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration  
**TRAINING ACTIVITY:** NAMTRAU North Island  
**LOCATION, UIC :** San Diego, California, 39476

| TECHNICAL MANUAL NUMBER / TITLE   | MEDIUM    | QTY REQD | DATE REQD | STATUS  |
|---|-----------|----------|-----------|---------|
| NAVAIR 51-15ABB-2<br>MK 13 MOD 0 Catapult Maintenance and Overhaul                                | Hard copy | 5        | May 90    | Onboard |
| NAVAIR 51-5BBA-1.1<br>MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul              | Hard copy | 5        | May 90    | Onboard |
| NAVAIR 51-5BCA-1.1<br>MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul              | Hard copy | 1        | May 90    | Onboard |
| NAVAIR 51-70-3<br>Deflector, Jet Blast, MK 7 MOD 0, Operation, Maintenance, and Overhaul with IPB | Hard copy | 5        | May 90    | Onboard |

**CIN, COURSE TITLE:** C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic  
**TRAINING ACTIVITY:** NAMTRAU Norfolk  
**LOCATION, UIC :** Norfolk, Virginia, 46680

| TECHNICAL MANUAL NUMBER / TITLE                                    | MEDIUM    | QTY REQD | DATE REQD | STATUS  |
|--|-----------|----------|-----------|---------|
| NAVAIR 51-15ABB-1<br>MK 13 MOD 0 Catapult Operation                | Hard copy | 20       | May 90    | Onboard |
| NAVAIR 51-15ABB-2<br>MK 13 MOD 0 Catapult Maintenance and Overhaul | Hard copy | 20       | May 90    | Onboard |
| NAVAIR 51-15ABB-3<br>MK 13 MOD 0 Catapult IPB                      | Hard copy | 20       | May 90    | Onboard |

**CIN, COURSE TITLE:** C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic  
**TRAINING ACTIVITY:** NAMTRAU North Island  
**LOCATION, UIC :** San Diego, California, 39476

| TECHNICAL MANUAL NUMBER / TITLE                     | MEDIUM    | QTY REQD | DATE REQD | STATUS  |
|---|-----------|----------|-----------|---------|
| NAVAIR 51-15ABB-1<br>MK 13 MOD 0 Catapult Operation | Hard copy | 20       | May 90    | Onboard |

**IV.B.3. TECHNICAL MANUALS**

NAVAIR 51-15ABB-2 Hard copy 20 May 90 Onboard  
 MK 13 MOD 0 Catapult Maintenance and Overhaul

NAVAIR 51-15ABB-3 Hard copy 20 May 90 Onboard  
 MK 13 MOD 0 Catapult IPB

**CIN, COURSE TITLE:** C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear  
**TRAINING ACTIVITY:** NAMTRAU Norfolk  
**LOCATION, UIC :** Norfolk, Virginia, 46680

| TECHNICAL MANUAL NUMBER / TITLE  | MEDIUM    | QTY REQD | DATE REQD | STATUS  |
|--|-----------|----------|-----------|---------|
| NAVAIR 51-5BBA-1.1<br>MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul | Hard copy | 5        | May 90    | Onboard |

|   |           |   |        |         |
|---|-----------|---|--------|---------|
| NAVAIR 51-5BBA-1.2<br>MK 7 MOD 2 Arresting Gear IPB | Hard copy | 1 | May 90 | Onboard |
|---|-----------|---|--------|---------|

|  |           |   |        |         |
|--|-----------|---|--------|---------|
| NAVAIR 51-5BCA-1.1<br>MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul | Hard copy | 5 | May 90 | Onboard |
|--|-----------|---|--------|---------|

|   |           |   |        |         |
|---|-----------|---|--------|---------|
| NAVAIR 51-5BCA-1.2<br>MK 7 MOD 3 Arresting Gear IPB | Hard copy | 5 | May 90 | Onboard |
|---|-----------|---|--------|---------|

**CIN, COURSE TITLE:** C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear  
**TRAINING ACTIVITY:** NAMTRAU North Island  
**LOCATION, UIC :** San Diego, California, 39476

| TECHNICAL MANUAL NUMBER / TITLE  | MEDIUM    | QTY REQD | DATE REQD | STATUS  |
|--|-----------|----------|-----------|---------|
| NAVAIR 51-5BBA-1.1<br>MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul | Hard copy | 5        | May 90    | Onboard |

|   |           |   |        |         |
|---|-----------|---|--------|---------|
| NAVAIR 51-5BBA-1.2<br>MK 7 MOD 2 Arresting Gear IPB | Hard copy | 1 | May 90 | Onboard |
|---|-----------|---|--------|---------|

|  |           |   |        |         |
|--|-----------|---|--------|---------|
| NAVAIR 51-5BCA-1.1<br>MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul | Hard copy | 5 | May 90 | Onboard |
|--|-----------|---|--------|---------|

|   |           |   |        |         |
|---|-----------|---|--------|---------|
| NAVAIR 51-5BCA-1.2<br>MK 7 MOD 3 Arresting Gear IPB | Hard copy | 5 | May 90 | Onboard |
|---|-----------|---|--------|---------|

**PART V - MPT MILESTONES**

| <b>COG CODE</b> | <b>MPT MILESTONES</b>  | <b>DATE</b> | <b>STATUS</b> |
|-----------------|--|-------------|---------------|
| PDA             | Began Installation of Arresting Gear Service Change 427          | FY00        | Completed     |
| PDA             | Began Installation of Arresting Gear Service Change 428          | FY00        | Completed     |
| PDA             | Held ALRE Integrated Logistics Support Management Team Meeting   | Apr 01      | Completed     |
| TSA             | Developed Draft CV/CVN ALRE NTSP                                 | Oct 01      | Completed     |
| TSA             | Hold CV/CVN ALRE NTSP Conference                                 | Jan 02      | Pending       |
| TSA             | Develop Proposed CV/CVN ALRE NTSP                                | May 02      | Pending       |
| PDA             | Complete Installation of Arresting Gear Service Change 428       | Jun 02      | Pending       |
| PDA             | Award Arresting Gear Service Change 437 Production Contract      | FY02        | Pending       |
| PDA             | Conduct Test and Evaluation of Arresting Gear Service Change 437 | FY02        | Pending       |
| PDA             | Begin Installation of Arresting Gear Service Change 437          | FY03        | Pending       |
| PDA             | Conduct ALRE Sea Trials Aboard USS Ronald Reagan                 | FY03        | Pending       |
| PDA             | Complete Installation of Arresting Gear Service Change 427       | Jun 04      | Pending       |

PART VI - DECISION ITEMS/ACTION REQUIRED

| DECISION ITEM OR<br>ACTION REQUIRED | COMMAND ACTION | DUE DATE | STATUS |
|-------------------------------------|----------------|----------|--------|
|-------------------------------------|----------------|----------|--------|

No Decision Items or Actions Pending

PART VII - POINTS OF CONTACT

| NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL  | TELEPHONE NUMBERS   |
|--|---|
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| <b>Ms. Teri Kostbar</b><br>ALRE Training Manager<br>NAWCADLKE, 3.4.5<br>kostbart.@navair.navy.mil                      | <b>COMM:</b> (732) 323-1841<br><b>DSN:</b> 642-1841<br><b>FAX:</b> (732) 323-7402 |

**PART VII - POINTS OF CONTACT**

| NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL  | TELEPHONE NUMBERS  |
|--|--|
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| <p><b>Mr. Lonnie Snyder</b><br/>                     Catapult Logistics Manager<br/>                     NAWCADLKE, 3.1.4.1<br/>                     snyderl@navair.navy.mil</p>                                   | <p><b>COMM:</b> (732) 323-1840<br/> <b>DSN:</b> 624-1840<br/> <b>FAX:</b> (732) 323-7232</p> |
| <p><b>Mr. Joseph Wenger</b><br/>                     Arresting Gear Logistics Manager<br/>                     NAWCADLKE, 3.1.4.1<br/>                     wengerj@navair.navy.mil</p>                             | <p><b>COMM:</b> (732) 323-1831<br/> <b>DSN:</b> 624-1831<br/> <b>FAX:</b> (732) 323-7402</p> |
| <p><b>Mr. Paul Plasterer</b><br/>                     Catapult Project Leader<br/>                     NAWCADLKE, 4.8.10.1<br/>                     plastererpk@navair.navy.mil</p>                                | <p><b>COMM:</b> (732) 323-1165<br/> <b>DSN:</b> 624-1165<br/> <b>FAX:</b> (732) 323-1588</p> |
| <p><b>Mr. Robert Smith</b><br/>                     Catapult Controls Team Leader<br/>                     NAWCADLKE, 4.8.10.1<br/>                     smithrj4@navair.navy.mil</p>                               | <p><b>COMM:</b> (732) 323-7385<br/> <b>DSN:</b> 624-7385<br/> <b>FAX:</b> (732) 323-7232</p> |
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## PART VII - POINTS OF CONTACT

| NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL   | TELEPHONE NUMBERS   |
|---|---|
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| <b>CDR Erich Blunt</b><br>Aviation Technical Training<br>CNET, ETE-32<br>cdr-erich.blunt@cnet.navy.mil          | <b>COMM:</b> (850) 452-4915<br><b>DSN:</b> 922-4915<br><b>FAX:</b> (850) 452-4901                     |
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PART VII - POINTS OF CONTACT

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL

TELEPHONE NUMBERS

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