



**CLEARED
For Open Publication**

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Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

15F/N

Wire Maintenance and Schematics

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Training Reference



- **Current Training**
 - 56 Training Hours
- **Near Term Future Training**
 - 50.5 Training Hours (Restructured Training to meet new objectives)
- **1-1500-323-24-1 (TO 1-1A-14 / NAVAIR 01-1A-505-1)**
 - Installation and Repair Practices
 - Volume 1 – Aircraft Electric and Electronic Wiring



15F/N Training – Wire Maintenance



Current Training

- **15.5 hours - PowerPoint / Discussion**

- Identifying definitions, symbols, wire characteristics, and replacement and inspection of wire and cable
- Identifying tools, contacts, terminal lugs, splices, and end caps
- Identifying connectors
- Identifying general soldering procedures
- Identifying battle damage assessment, repair procedures and repair kits

- **4 Hours – Demonstration**

- Wiring Harness w/ Terminal Junction/Environmental Splices/Terminal Lugs
- Soldering and assembly of U-94 Connector
- Proper assembly of BNC connector

- **36 Hours – Hands on Practical Exercise**

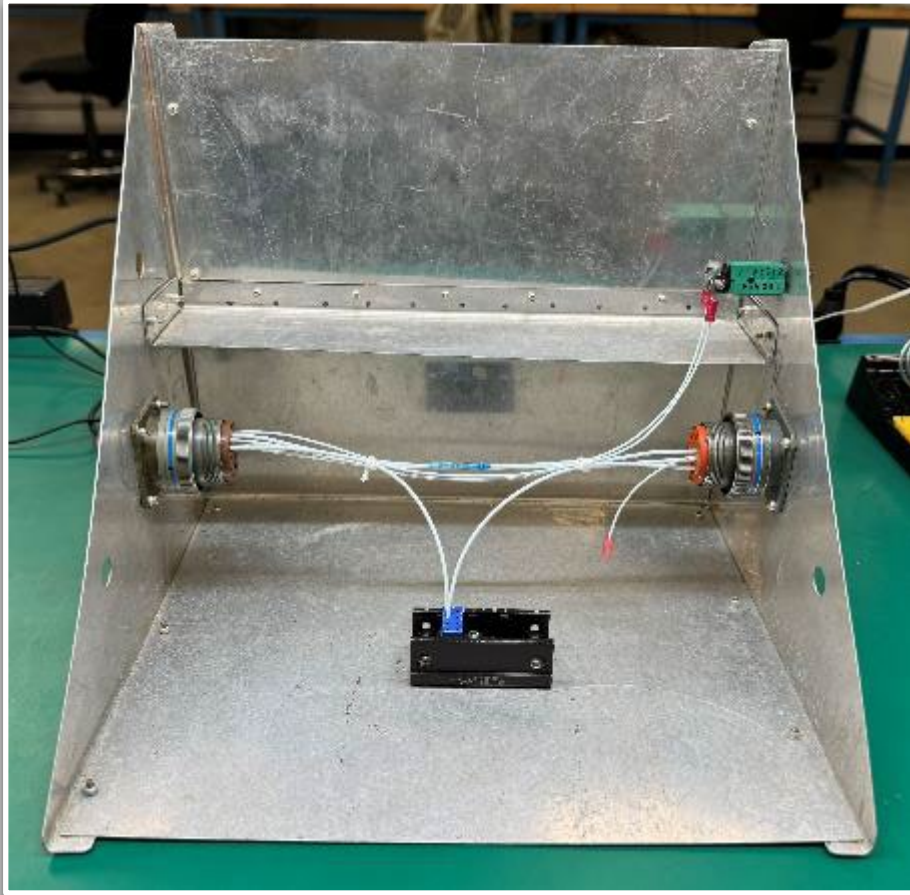
- Hands on from demonstrations



15F/N Training – Hands on Training



Wiring Harness



BNC

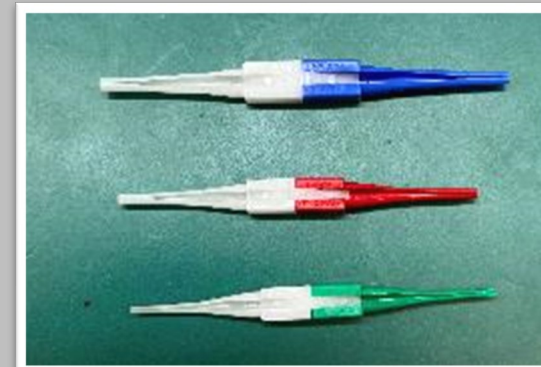
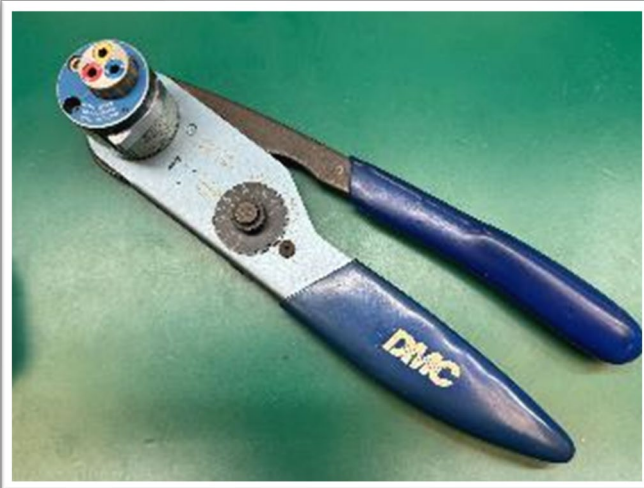


U94





Common Wire Maintenance Tools





15F/N Training – Schematics



Current Training

- **30 Minutes – PowerPoint / Discussion**
 - Basic Schematic
 - Power Source
 - Load
 - Conductor
 - Switches
 - General Rules
 - Connections
 - Grounds
- **Hands on / Practical Exercises**
 - Reinforced throughout training
 - Circuit Cards
 - Aircraft Schematics
 - UH-60 Blackhawk
 - CH-47 Chinook



15F/N Training – Near Term Future



Wire Maintenance

- **10 hours - PowerPoint / Discussion**

- Identifying wire characteristics, harness installation, and inspection techniques
- Identifying tools, contacts, terminal lugs, splices, and end caps
- Identifying connectors and contact installation and release
- Identifying general soldering procedures

- **3 Hours – Demonstration**

- Wiring Harness w/ Terminal Junction/Environmental Splices/Terminal Lugs
- Soldering and assembly of U-94 Connector
- Proper assembly of BNC connector

- **36 Hours – Hands on Practical Exercise**

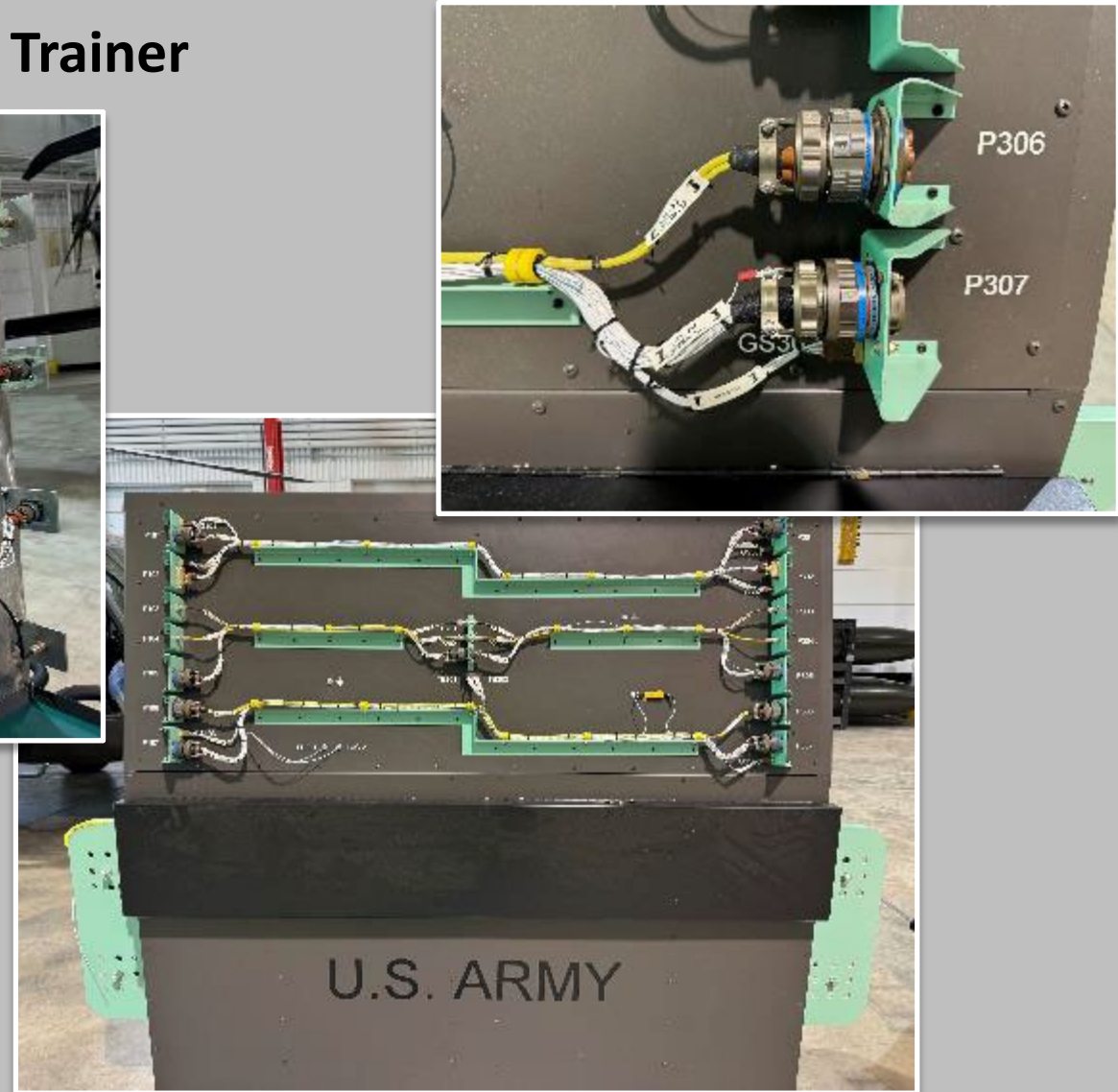
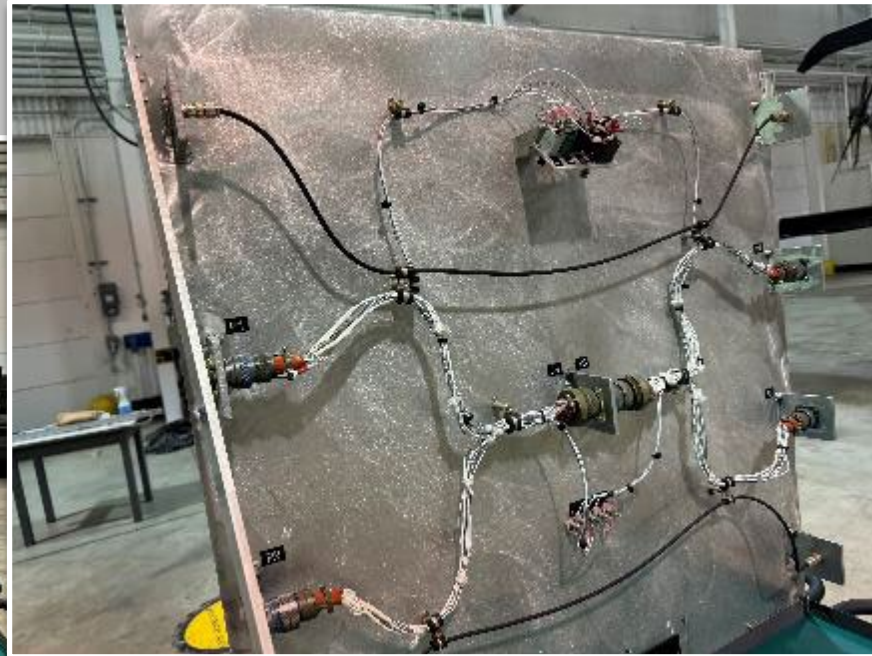
- Hands on from demonstrations
- Repairing Aircraft Wire Trainers



15F/N Training – Near Term Future



Aircraft Wire Trainer





15F/N Training – Near Term Future



Schematics

- **1 ½ Hours – PowerPoint / Discussion**

- Introduction to Schematics
- Schematic Symbols
- Basic Components
 - Power Source
 - Load
 - Conductors
- Safety and Control Devices
- Schematic Flow

- **Hands on / Practical Exercises**

- Reinforced throughout training
- Circuit Cards
- Aircraft Schematics
 - UH-60 Blackhawk
 - CH-47 Chinook



15F/N Training – Long Term Future



- **Fiber Optics**

- NIDA Trainer integration (Current Capabilities)

- Introduction to Fiber Optics
- Fiberoptic Components
- Signal Transmission
- Fiberoptic Cable Connections
- Fiberoptic System Troubleshooting

- **TM 1-1500-323-24-4 (TO 1-1A-14-4 / NAVAIR 01-1A-505-4**

- Installation and Repair Practices

- Aircraft Fiber Optic Cabling

