



### JSWAG Conferences/ Announcements

The next JSWAG Meeting is scheduled for August 21-23, 2012 in Dayton, Ohio. The JFOWG Meeting will be held the same week in Philadelphia, Pennsylvania. Please contact a committee chair if interested in attending.

Nominations for the 2012 Lu Roberts award recipient has begun. Please visit <https://jswag.navair.navy.mil/> to make your nomination. Nominations will close August 30, 2012 for voting to begin. The winner will be announced at the 2013 Spring JSWAG/JFOWG meeting.

### Other Conferences

- 2012 Australia Aircraft Airworthiness & Sustainment Conference -- Brisbane Convention and Exhibition Centre *July 24-26, 2012*
- AUVSI Unmanned Systems 2012 -- Las Vegas, NV *August 6-9, 2012*
- DoD Maintenance Symposium & Exhibition -- Grand Rapids, MI *November 13-16, 2012*
- Aircraft Airworthiness & Sustainment Conference -- Grapevine, TX *March 25-28, 2013*

### Newsletter Contacts

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## C-Wrap Wire Repair

The NAVAIR Wiring Systems Team (AIR-4.4.5.3) in cooperation with TE Connectivity and the SAE (Society of Automotive Engineers) has been working to resolve an issue with wiring repair and develop a new standard. Current wiring maintenance practices require that the wire be replaced or cut and spliced when the wire insulation is damaged or cracked, but the copper conductor is not damaged. Of particular concern is the radial cracking that occurs when MIL-DTL-81381 (KAPTON™) ages, which can lead to arc tracking and further damage to the wire and wire harness. C-Wrap is an easy to install solution consisting of two pieces, the outer tubing and adhesive. With its wrap around design, it eliminates the need to de-pin the connector or cut the wire for repair. It is environment resistant and has an operating temperature of -65°C to +150°C. In addition, it is compatible with all of the existing aircraft wire insulations.

The current C-Wrap design will provide environment resistant repair to damaged primary wire that has a radial crack up to 360 degrees or nicks/scrapes not longer than ¼ inch on insulation rated for a minimum of 135°C and no damage to the conductor. It can be installed using approved convection and infrared heat guns used for installing M81824 splices. C-Wrap will be available in four sizes: Green (26 to 24 size wire); Red (22 to 20 size wire); Blue (18 to 16 size wire); and Yellow (14 to 12 size wire).



Figure 1- Adhesive Sleeve Installation



Figure 2- Insulation Sleeve Installation



Figure 3- Sleeve Recovered/Shrunk



Figure 4- Completed Wrap-Around Repair Sleeve on Single Conductor

## C-Wrap from page 1



TE Connectivity launched the commercially available C-Wrap in May 2012. A draft SAE aerospace standard and slash sheet is anticipated by the October 2012 SAE AE-8C2 Committee meeting. It is anticipated that the completed SAE standard and slash sheet will be published by summer 2013.

Ongoing efforts include the development of a larger diameter C-Wrap to accommodate insulation repairs for: larger wire gauges, multi-conductor cables and RF cables. The NSNs are pending, with temporary numbers assigned. The NA 01-1A-505-1 will be updated to incorporate installation procedures in WP 014 00, and the Mil-Hdbk-522 will be updated to include detailed inspection procedures.

## NAVAIR Wiring Team Produces Training Video

The NAVAIR Wiring Systems Team (AIR 4.4.5.3 & 6.7.1.3), working with the JSWAG, Special Skills Training Branch (AIR 6.7.5.2) and Center for Naval Aviation and Technical Training (CNATT), has created a training video that includes short instructional videos. These videos will provide personnel of all maintenance ratings a quick reference for the inspection and repair of the aircraft Electrical Wiring Interconnects System (EWIS). The training video includes fourteen modules: (1) Introduction Joint Services Wiring Maintenance Techniques; (2) EWIS (Introduction to Wiring Inspection); (3) Lacing Tape/String tie; (4) Splicing; (5) Connector Sealing Plugs; (6) Installing Wire; (7) Clamping; (8) Routing; (9) Shielded Wire Repair; (10) Fiber Optic Wire Repair; (11) Connector Repair; (12) Coax Connector Repair; (13) Solder Type Connector Repair; and (14) Crimping. These short videos explain in detail various tasks, such as crimping, connector assembly, splice installation, cable repair, etc., expected to be mastered by wiring maintainers of all ratings. Each video is approximately 5 to 10 minutes in duration at the most. After taking more than a year to create, the video will be ready for dissemination to maintenance shops around the Fleet by the end of summer. To order, go to [www.defenseimagery.mil](http://www.defenseimagery.mil) and use the PIN #806994. For more information on these training videos and other wire-related information, visit [www.navair.navy.mil/js wag](http://www.navair.navy.mil/js wag). 

