

VOLUME VI

CHAPTER 28

CABLEWAY ASSESSMENT

REFERENCES.

- (a) NAVSEAINST 9304.1C - Shipboard Electrical Cable and Cableway Inspection and Reporting Procedures
- (b) DOD-STD-2003 - Military, Standard, Electric Plant Installation Standard Methods for Surface Ships and Submarines

LISTING OF APPENDICES.

A Sample Cableway Assessment Message

28.1 PURPOSE. The Cableway Assessment Program is a comprehensive inspection of shipboard electrical cables, conducted by Fleet Maintenance Activity (FMA) cableway assessment teams. The requirements for cableway assessments are contained in reference (a), which defines the training requirements, assessment criteria, and reporting procedures relevant to the assessments.

28.2 HAZARD CATEGORIES. The surface ship electrical cable and cableway assessment program is designed to identify and correct cable/cableway safety hazards in a prioritized, orderly manner, consistent with ship and personnel safety. The three categories of deficiencies are defined as follows:

- a. Category I - IMMEDIATE HAZARD: Deficiencies which are, or have the immediate potential to be, personnel safety hazards, electrical fire hazards, or which negate firebreak integrity.
- b. Category II - POTENTIAL HAZARD: Deficiencies which require corrective action to ensure continued reliable safe performance or to maintain watertight integrity, but are not an immediate danger to personnel or equipment.
- c. Category III - NON-HAZARDOUS: Deficiencies which are not hazardous to personnel or equipment but are not in compliance with approved standard installation practices.

28.3 DEFICIENCY CORRECTION. The intent of this program is to ensure that deficiencies classified as Category I are corrected immediately. Deficiencies classified as Category II should be scheduled for repair during the ship's next regularly scheduled industrial availability as work priority permits. Category III deficiencies should be corrected whenever such repairs can be accomplished in conjunction with other scheduled repairs or alterations involving the cables or cableway in which the deficiencies exist.

28.4 ASSESSMENT SCHEDULING.

28.4.1 Initial Assessment. Initial cable/cableway assessments are conducted on each ship to establish a baseline configuration to ensure compliance with reference (b).

28.4.2 Follow-up Assessments. Follow-up assessments shall be conducted within 12 months prior to an industrial availability of greater than six weeks scheduled duration. The purpose of this assessment is to validate the integrity of ship's cableways, identify discrepancies that require depot or commercial level work effort, and to train responsible Ship's Force personnel to meet requirements of paragraph 28.6.5 of this chapter. Both the initial and follow-up assessments will be comprehensive, complete ship assessments.

28.4.3 Partial Assessments. Following availabilities which modify shipboard cableways, ships may request partial assessments to validate the quality of the modified or newly installed cableways.

28.5 CABLEWAY ASSESSMENT/ASSIST TEAM COMPOSITION AND PROCEDURES.

- a. FMA Electrical Cableway Assessment shops ideally consist of 12 FMA personnel. The recommended shop manning is six certified personnel and six personnel in training. Certified personnel must have satisfactorily completed a cableway assessment/repair training course and satisfactorily demonstrated their practical knowledge based on enclosure (1) of reference (a). Personnel in training may assist in cableway assessments after satisfactorily completing classroom training modules per reference (a) and satisfactorily demonstrating their practical knowledge to an FMA appointed certifying assessor. Assessors should be E5 or above, with shipboard experience, and from the following source ratings: AE, EM, ET, EW, FC, FT, GM, GSE, IC, IT, STG, and STS.
- b. For assessment/assist visit purposes, the FMAs should establish sub-teams of one certified assessor, one trainee, and one Ship's Force member. Assign as many sub-teams as necessary to assess the entire ship. The assessed ship will assign a minimum of one Ship's Force person per FMA sub-team from the above source ratings, for the purpose of training, and to assist in shipboard assessment and repairs. Each FMA will assign one HT (qualified welder) to assist during shipboard cableway repairs.
- c. In addition to technical training, all team members shall be trained to administer Cardio-Pulmonary Resuscitation.
- d. Upon completing the assessment of the entire ship, assessment teams will assist in the correction of cableway deficiencies as time and schedules permit. Repair efforts will concentrate on removal of dead-ended cables, correction of watertight integrity items, and Category I discrepancies.

28.6 RESPONSIBILITIES.

28.6.1 Immediate Superior In Command. Ensure assigned ships are scheduled to receive required cableway assessments and training.

28.6.2 Regional Support Group/Regional Maintenance Center. Schedule assigned ships for cableway assessments/assist visits and coordinate the training effort of Ship's Force personnel by the FMA.

28.6.3 Fleet Maintenance Activity.

- a. Establish the following to support the Electrical Cableway program:
 - (1) Electrical Cableway Assessment and Repair Teams for the accomplishment of scheduled cableway assessments.
 - (2) Training program to support FMA training needs.

- (3) Training program for ship's personnel. Training of Ship's Force personnel will include classroom training before the assessment and shipboard practical training during the assessment.
- b. Give daily progress reports (briefing, if possible) to ship's Commanding Officer, identifying Category I findings and any other areas of concern.
- c. Upon completion of the assessment, submit a final report per Appendix A of this chapter to the applicable Type Commander (TYCOM) (N434), info the Immediate Superior In Command (ISIC) and the Regional Support Group/Regional Maintenance Center. The final report should contain a list of Ship's Force personnel trained as cableway assessors/repairmen, including names, social security numbers, and rate/rank.

28.6.4 Cableway Assessment Team.

- a. Locate, identify, and categorize electrical cableway discrepancies on ships.
- b. Train Ship's Force to assess, repair, and maintain shipboard cableways.
- c. Correct identified discrepancies which are beyond Ship's Force capability, and/or document discrepancies for future correction.
- d. Provide guidance for the repair of deferred discrepancies.

28.6.5 Ship Commanding Officer.

- a. Assign Ship's Force personnel (E4 or above) from source ratings listed in paragraph 28.5.a of this chapter for FMA cableway assessment repair training. After completing training, they will serve as quality assurance personnel to minimize future discrepancies by contractors and electrical installation teams. They should identify, track, and repair cableway discrepancies within their departments.
- b. Correct outstanding discrepancies listed in the final cableway assessment report.
- c. Within 30 days of completion of the assessment, enter all unrepaired Category I discrepancies in the Current Ship's Maintenance Project. Schedule these items for corrective action at the earliest opportunity.

28.7 REPORTS. Upon completion of the cableway assessment, the assessing agency must submit a final report using the format of Appendix A of this chapter.

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APPENDIX A

SAMPLE CABLEWAY ASSESSMENT MESSAGE

FM (FMA)//
 TO USS (SHIP'S NAME AND HULL NO.)//
 INFO ISIC//(AS APPROPRIATE)
 RSG/RMC//(AS APPROPRIATE)
 BT
 UNCLAS //N04790//
 MSGID/GENADMIN/(ORIGINATING FMA)//
 SUBJ/ ELECTRICAL CABLEWAY ASSESSMENT REPORT FOR USS (SHIP'S NAME AND HULL NO.)//
 REF/A/DOC/COMFLTFORCOMINST 4790.3//
 AMPN/REF A IS JOINT FLEET MAINT MAN/VOL VI CH 28 PROVIDES GUIDANCE IN CABLEWAY
 INSPECTIONS//
 RMKS/1. CABLEWAY ASSESSMENT OF USS (SHIP'S NAME AND HULL NO.) WAS CONDUCTED IN
 ACCORDANCE WITH REF A FROM (START DATE) TO (COMPLETION DATE) BY (INSPECTING UNIT).
 RESULTS ARE AS FOLLOWS:

	CAT I	CAT II	CAT III	TOTAL
ITEMS IDENTIFIED	_____	_____	_____	_____
ITEMS CORRECTED	_____	_____	_____	_____
ITEMS REMAINING	_____	_____	_____	_____
ITEMS DOWNGRADED	_____	_____	_____	_____

2. CABLE/CABLEWAY DISCREPANCIES.

	QUANTITY	PERCENTAGE
DEAD-ENDED CABLES	_____	_____
IMPROPER EQUIPMENT PENETRATIONS	_____	_____
COLLARS/CHAFING RINGS WITHOUT FIRE STOP	_____	_____
MISSING CABLE HANGERS	_____	_____
TUBES NOT PACKED	_____	_____
TUBES NOT BLANKED	_____	_____
CHAFED CABLES	_____	_____
EQUIPMENT IMPROPERLY MOUNTED	_____	_____
CONNECTERS MISSING TEMPSEAL	_____	_____
IMPROPER SPLICES	_____	_____
EXCESSIVE SLACK IN CABLES	_____	_____
INCORRECT BEND RADIUS	_____	_____
MISSING COVERS	_____	_____
IMPROPER BANDING	_____	_____
IMPROPER CABLE RUNS	_____	_____

FIRE BOUNDARIES MISSING FIRE PROTECTIVE COATING _____

3. THE FOLLOWING ITEMS WERE CORRECTED:

	QUANTITIES
DEAD ENDED CABLES	_____
DEAD ENDED CABLES PROPERLY END SEALED	_____
NEW CABLES INSTALLED	_____
IMPROPER EQUIPMENT PENETRATIONS DOWNGRADED WITH APPROVED METHODS	_____
FIRE BOUNDARIES TREATED WITH FIRE PROTECTIVE COATING	_____
(LIST ANY OTHER TYPES OF DISCREPANCIES AND QUANTITIES CORRECTED)	

4. FIRE PROTECTIVE COATING (TYPE) HAS BEEN APPLIED TO ALL ELECTRICAL PENETRATIONS THROUGH DESIGNATED FIRE ZONE BOUNDARIES (IF ALL DESIGNATED BOUNDARIES WERE NOT COATED, IDENTIFY REMAINING BOUNDARIES TO BE COATED).

5. ELECTRICAL CABLE/CABLEWAY INSPECTION IS COMPLETED (OR) ELECTRICAL CABLE/CABLEWAY INSPECTION IS COMPLETE WITH THE FOLLOWING EXCEPTIONS (LIST COMPARTMENTS OR IDENTIFY BOUNDARIES).

6. THE FOLLOWING SHIP'S FORCE PERSONNEL WERE TRAINED AND HAVE SATISFACTORILY DEMONSTRATED THEIR PRACTICAL KNOWLEDGE IN CABLEWAY INSPECTION AND REPAIR TECHNIQUE. PERSONNEL HAVE BEEN INFORMED OF THEIR RESPONSIBILITY FOR QUALITY ASSURANCE OF CABLEWAYS INCLUDING INSPECTION AND MAINTENANCE OF CABLEWAYS:

NAME	RATE/RANK	SSN
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAIN LANGUAGE ADDRESS DIRECTORY (PLAD) IS UTILIZED.