

DGO # 0081-126

GT 20101595

Helistran

GENERAL DYNAMICS CORPORATION
Electric Boat Division
Groton, Connecticut

LISA Colonial

2-3-2010

Wire, Electrical, No. 16 Size,
2000 Volts, for ACSAS
Transmit System

Prepared for
Naval Sea Systems Command, PMS393
Contract N00140-82-G-BZ21-Exo1

Prepared by
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Date: _____

PROCUREMENT SPECIFICATION
Wire, Electrical, No. 16 Size
2000 Volts, for ACSAS Transmit System

REQUIREMENTS:

CONSTRUCTION

- FIRST - Copper Conductor, Tin Coated, ASTM B-286, Size 16-19.
Maximum Diameter 0.059 inch.
- SECOND - Insulation (White) of fluoropolymer (TEFZEL). Nominal wall thickness
0.022 inch. Maximum overall diameter 0.106 inch.

EXAMINATION AND TESTS:

Basic Electrical:

Insulation Resistance-Megohms per 1000 feet, minimum	
Conductor to water.....	1000
Conductor resistance - at 20°C, ohms/1000 ft., maximum.....	4.82
Voltage withstand - volts, rms, minimum	
Conductor to water	5000
Insulation dielectric - On 100 percent of insulated conductor. Test in accordance with specification MIL-W-81381A of November 15, 1972, paragraph 4.7.4.1, using a test voltage of 8.0kv (peak) minimum.	
Corona extinction voltage, per MIL-C-17, volts RMS, minimum	3500

GROUP A:

Visual and dimensional

GROUP B:

Physicals (unaged)

Insulation

Tensile strength - psi, minimum.....	5000
Elongation - percent, minimum	100

GROUP C:

Physicals (aged)

Insulation

Air oven (168 hours at 180°C)

Tensile strength, percent of unaged, minimum	80
Elongation - percent of unaged, minimum	90

Unit ordering Length: 500 FT (minimum)