

Critical Item: Variable Transformer (6 Items Total)
Find Number: AT3, AT4
Criticality Category: 1 (Night Landing Only)

SAA No:	29LA01-003	System/Area:	Visual Landing Aids at SLS #1
NASA Part No:		PMNJ Name:	U72-1336-02 Ball Lights
Mfg/ Part No:	Technipower W5L	Drawing/ Sheet No:	80K51889 9

Function: Each transformer provides controlled voltage to one of the ball lights.

Critical Failure Mode/Failure Mode No: Fails short to ground/29LA01-003.030, 29LA01-003.031, 29LA01-003.032.

Failure Cause: Structural Failure/Contamination/Corrosion

Failure Effect: Disconnect switch fuse S1B will open resulting in loss of power to ball lights 1 and 2, and bar light assemblies 2, 4 and 6. Loss of ability to acquire and maintain the proper inner glideslope during landing operations. Possible loss of life/vehicle.

Time to Effect: Immediate, during outer glideslope use.

ACCEPTANCE RATIONALE

Design:	Rated	Estimated Operating
	Voltage = 0 to 120 Volts	56.3 Volts Output
	Current = 13 Amps Max.	6.7 Amps Output

o Transformer is mounted in a NEMA 4 Hoffman enclosure.

Test: Meets requirements of MIL-STD-202, "Test Methods for Electronic and Electrical Components." Tested for vibration, shock, dielectric and rotational life in accordance with MIL-STD-202.

• The OMRSD, File VI will require verification of proper operation prior to each operational use.

- GEGS Technical Directives TD 1-4 and 1-5 require verification of proper operation the day before, and again the day of Shuttle training aircraft and Orbiter landing operations.

Inspection: GEGS Technical Directives will require that equipment is physically inspected for corrosion, contamination and/or physical damage annually.

Failure History:

- The PRACA database was researched and no failure data was found on this component in the critical failure mode.
- The GIDEP failure data interchange system was researched and no failure data was found on this component in the critical failure mode.

Operational Use:

- **Correcting Action:**
There is no action which can be taken to mitigate the failure effect.
- **Timeframe:**
Since no correcting action is available, timeframe does not apply.