

OCT 20 1992

Critical Item: Adjustable Autotransformer (3 Items Total)
Find Number: AT6 (1 ea./Runway)
Criticality Category: 1 For Night, 3 For Day Landings

SAA No:	29SL02-008	System/Area:	Visual Landing Aids at White Sands Space Harbor, New Mexico
NASA Part No:	None	PMN/Name:	U72-1336-03 Ball/Bar Lights
Mfg/Part No:	Technipower W30	Drawing/Sheet No:	50K51890 3

Function: Provides controlled voltage to the ball lights when in the "Night" mode.

Critical Failure Mode/Failure Mode No:	Fails open	FM No. 29SL02-008.008
		FM No. 29SL02-008.021
		FM No. 29SL02-008.034
	Fails short to ground	FM No. 29SL02-008.009
		FM No. 29SL02-008.022
		FM No. 29SL02-008.035

Failure Cause: Structural failure/Contamination/Corrosion

Failure Effect: Fails open: Loss of power to the ball lights. Fails short: Safety switch S2C fuse will open resulting in loss of power to the ball lights, loss of ability to acquire and maintain the proper inner glide slope during Orbiter landing operations. Possible loss of life/vehicle.

Time to Effect: Immediate.

ACCEPTANCE RATIONALE

Design:

Rated	Estimated Operating
Voltage = 120/240 max.	72.0 volts output
Current = 25 amps	11.8 amps output

ATTACHMENT 505123
SHEET 4 OF 8

OCT 20 1992

- Transformer is mounted in a rainproof NEMA 3R enclosure.

Test:

- Meets requirements of MIL-STD-202, "Test Methods for Electronic and Electrical Components." Tested for vibration, shock, dielectric withstand voltage and rotational life in accordance with MIL-STD-202.
- The OMRSD File VI and WSSH Pre-Mission Preparation procedure requires verification of proper operation and equipment setup, prior to each Shuttle launch and landing operation.

Inspection:

- The WSSH Preventive Maintenance Procedure requires that equipment is physically inspected and cleaned monthly.

Failure History:

- The FRACA system 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.

ATTACHMENT 50502341
SHEET 5 OF 8