Stabilized Glide Slope Indicator System (SGSI)

Stabilized Glide Slope Indicator (SGSI) system, an electro-hydraulic optical landing aid designed for use on air capable and amphibious assault vessels. Designed for air capable and amphibious assault ships, the SGSI system is an innovative electro-hydraulic-optical landing aid which allows pilots to visually establish and maintain the proper glide slope for a safer landing on air-capable vessel. The SGSI system is an essential part to ensuring the protection of assault ships and cargo.

Equipped with green, amber, and red lights, the SGSI system provides an easy-to-read indicator of the glide slope. A single bar lights up as green when the aircraft is above the correct glide slope, red when below, and amber when at the perfect glide slope. The pilot is able to maintain the correct glide path to the ship's landing pad by varying the aircraft altitude in order to maintain the amber light. In order to stabilize the glide slope, a light cell is mounted on an electro-hydraulic stabilized platform, moving the platform in an opposite direction to the ship's pitch and roll axes.

The SGSI system takes further precautionary action by providing a failure detection circuit, which reduces platform dynamic errors. The error detection circuits shuts off the GSI light in the event of a system failure, resulting in a GSI light source presentation. Working as a preventative measure, the SGSI system combats possible glide slope errors.

**Highlights**

- Prevention of incorrect glide slope
- Automated, and easy-to-read lighting system
- Reduction of platform dynamic errors through the failure detection circuit
- Pilots can take comfort in the single bar of light which carefully instructs them on how to land safely in aquatic situations
- Reduces the amount work required of pilots to ensure a precise landing
- Promotes a sense of security in high stress situations
- Permits Safe Approach for Landing on Ship and Carrier Decks

**Additional Features:**

- Radar Assembly
- Combiner Included in Assembly
- Tested to Frequency
Input Power Requirement

The amplitude and frequency of each of the following power sources, which the SGSI system requires to operate, must be regulated to within 5% of the requirements:

- One 115 volt, 60 Hz, single phase, 10 ampere ships emergency power source (Automatic Bus Transfer) under grounded. Nominal draw is 8.5 amperes.
- One 440 volts, 60 Hz, 3 phase, 5 ampere ships emergency power source (Automatic Bus Transfer) ungrounded. Pump draws 2.7 amps when running.

SGSI System Unit Numbers

The assemblies that comprise the SGSI system together with their unit numbers:

- Electronics enclosure assembly (F100)
- Remote control panel assembly (F200)
- Hydraulic pump assemble (F300)
- Transformer enclosure assembly (F400)
- Glide slope Indicator assembly (F500)
- Stabilized Platform Assembly (F600)
- Isolation Transformer Assembly (F900)