

## **SAFETY SUMMARY**

The following are general safety precautions that are unrelated to specific procedures and therefore do not appear elsewhere in this publication. These are recommended precautions that personnel should understand and apply during through the many phases of operation and maintenance.

### **ELECTROSTATIC SENSITIVE DEVICES PRECAUTIONS**

Since most modules used in all models of equipment have Electrostatic Discharge (ESD) sensitive devices included in them, all modules should be considered sensitive to electrostatic discharge. Handling in the field shall be the same as in the factory. Each system is shipped with a wrist strap that must be worn while maintaining the equipment. The wrist strap shall be fastened to the equipment chassis either in the designated plug-in or attached to the equipment chassis with the alligator clip. The wrist strap must be used before any modules are removed from the equipment and at all times while handling the modules until they are placed in a protective environment such as an anti-static bag. Modules or boards must not be placed on any non-conducting surface such as wooden work benches, painted metal work benches, plastics, or technical manuals. Any work surface to be used must have a conducting mat placed on it and attached to earth ground. The mat and additional wrist straps can be obtained from SELEX Sistemi Integrati Inc.

### **KEEP AWAY FROM LIVE CIRCUITS**

Operating personnel must at all times observe all safety regulations. Under no circumstances should any person remove any protective covers that expose lethal voltages. Do not replace components or make adjustments inside the equipment with primary power supply turned on. Under certain conditions, dangerous potentials may exist when the power is in the off position, due to charges retained by capacitors. To avoid casualties, always remove power and allow time for the capacitors to discharge before touching it.

### **DO NOT SERVICE OR ADJUST ALONE**

Under no circumstances should any person reach into or enter the enclosure for the purpose of servicing or adjusting the equipment except in the presence of someone who is capable of rendering aid.

### **RESUSCITATION**

Personnel working with or near high voltages should be familiar with modern methods of resuscitation.

### **RADIATION EXPOSURE**

The antenna(s) used for this transmitter must be fixed-mounted on outdoor permanent structures with a separation distance of at least 20cm from all persons during normal operation. The peak conducted output power at each antenna terminal must not exceed 3.2W and the peak radiated output power must not exceed 25.1W EIRP.

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## **9. INSTALLATION, INTEGRATION AND CHECKOUT**

The antenna(s) used for this transmitter must be fixed-mounted on outdoor permanent structures with a separation distance of at least 20cm from all persons during normal operation. The peak conducted output power at each antenna terminal must not exceed 3.2W and the peak radiated output power must not exceed 25.1W EIRP.

### **9.1 Introduction**

This section contains the information required to install the equipment, inspect the installation, perform startup and preliminary testing procedures, and perform an installation verification test.

### **9.2 Site Information**

The Marker Beacons are located along the extended runway centerline to provide a rough indication of an aircraft's distance from the runway threshold, and to indicate significant points along an instrument approach path.

An Outer Marker is typically located 4 nautical miles from the runway threshold; this location normally coincides with the point on the Marker Beacon approach at which the glide slope altitude equals the intercept altitude. A Middle Marker is typically located 3500 feet from the runway threshold; this location normally coincides with the point on the glide path at which the decision height (DH) is located for Category I operations--200 feet above the touchdown zone elevation.

A typical Marker Beacon site plan is illustrated in [Figure 9-1](#). This illustration shows the shelter and tower foundation locations, trenching details, and site preparation requirements. The terrain around the Marker Beacon site is to be graded to the specifications of FAA Order 6750.16B, Siting Criteria for Instrument Landing Systems, or as determined by the siting engineer.

### **9.3 Unpacking and Repacking**

Packing cases are to be handled and opened with care to avoid damage to electronics components. Be certain all fasteners, supports, and tie-downs have been removed before attempting to remove the units. Inspect all items for shipping damage and check against the packing slip to ensure complete shipment. Check the packing slip against [Table 1-2](#).

### **9.4 Input Requirement Summary**

Refer to [Table 1-1](#) for input power requirements.

### **9.5 Installation Procedures**

#### **9.5.1 Installation Test Equipment**

Refer to [Table 1-3](#) for a list of test equipment required for installation.

## MODEL 2130 MARKER BEACON

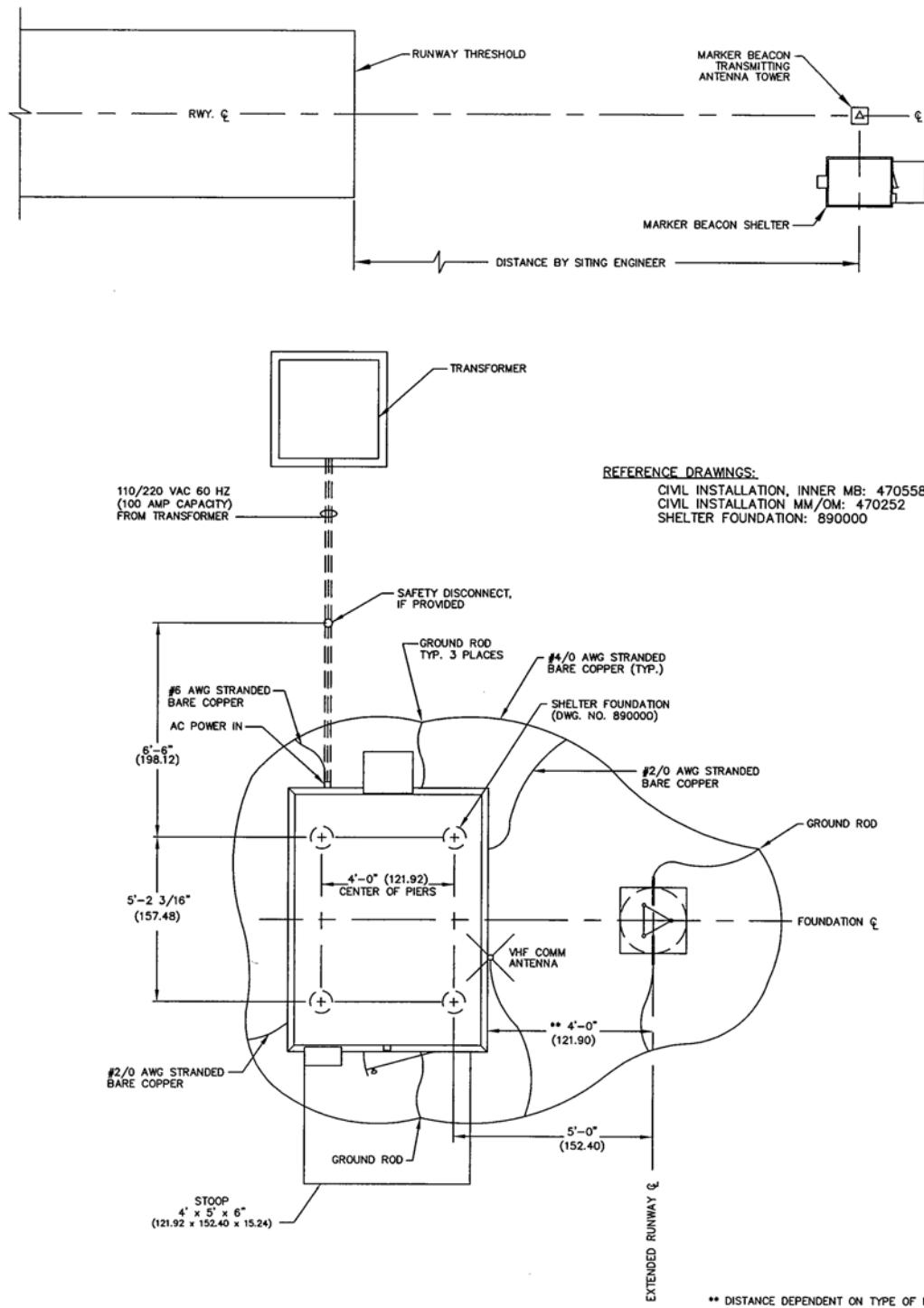


Figure 9-1 Typical Marker Beacon Site Details