

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
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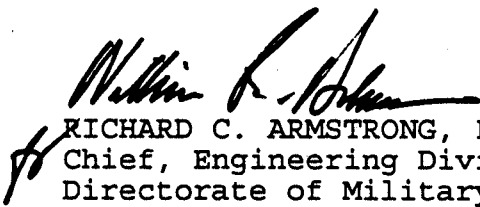
Technical Letter
No. 1110-3-464

31 May 1994

Engineering and Design
HOSPITAL HELIPAD REQUIREMENTS

1. Purpose. This letter provides advance criteria for design application of hospital helipad lighting, marking and radio controls prior to permanent publication.
2. Applicability. This regulation applies to HQUSACE elements major subordinate commands, districts, laboratories, and separate field operating activities (FOA).
3. Action to be Taken. Pending publication of permanent media guidance by each service, the criteria provided at the enclosure will be used as an interim design application guidance to augment Army, Navy, and Air Force criteria (Army's - TM 5-811-5, "Army Aviation Lighting,"; Navy's - Mil-Hdbk 1023/1A, "Airfield Lighting,"; and Air Force - AFI 32-1044, "Visual Air Navigational Systems") for each services hospital helipad projects.
4. Implementation. This letter will have special application as defined in paragraph 6c, ER 1110-345-100.

FOR THE DIRECTOR OF MILITARY PROGRAMS:


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Encl

HOSPITAL HELIPAD REQUIREMENTS

1. GENERAL. These criteria are intended to augment the requirements of other Army aviation lighting and marking criteria (TM 5-811-5, "ARMY AVIATION LIGHTING,"; STD DET 40-06-05, "ARMY AVIATION LIGHTING FIXTURES," and TM 5-823-4, "MARKING OF ARMY AIRFIELD-HELIPORT OPERATIONAL AND MAINTENANCE FACILITIES,") by covering those requirements unique to hospital helipads. Standards, which have been established for general airfield use; shall be followed where applicable.

2. DEFINITIONS.

HELIPAD. A prepared surface area for fixed facilities or marked turf area for temporary facilities centered within a clear landing area used for takeoff and landing helicopters.

3. SPECIAL CRITERIA.

a. LIGHTING.

(1) PERIMETER. The specific hospital helipad perimeter lighting pattern is illustrated in attached Figure 11-2, HOSPITAL HELIPAD LIGHTING PATTERN, and defined for visual meteorological conditions (VMC) operations in attached TABLE 11-1, HOSPITAL HELIPAD LIGHTING REQUIREMENTS. Spacing, installation and other criteria and standards can be found in TM 5-811-5 and STD DET 40-06-05.

(2) FLOODLIGHTING. Helipad floodlighting shall be in accordance with TM 5-811-5 and attached TABLE 11-1.

(3) LIMIT LIGHTS. Limit lights shall be in accordance with TM 5-811-5.

(4) VISUAL GLIDE SLOPE INDICATOR SYSTEM (VGSIS). The VGSIS shall be a two box Chase Helicopter Approach Path Indicator (CHAPI) as required by attached TABLE 11-1. Other guidance can be found in TM 5-811-5 and STD DET 40-06-05.

(5) ROTATING BEACON. The hospital rotating identification beacon shall be specified in accordance with STD DET 40-06-05 and TM 5-811-5.

(6) WIND INDICATOR. The wind indicator shall be illuminated in accordance with TM 5-811-5.

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b. RADIO CONTROLLER. The radio controller shall be in accordance with FAA - AC150/5345-49A, "SPECIFICATION L-854, RADIO CONTROL EQUIPMENT," and function as follows:

RADIO CONTROL OPERATION.

(1) The pilot can activate the hospital helipad lighting by keying the microphone from the helicopter after tuning to the assigned frequency.

(2) The pilot can key his microphone three times within a five second interval and on the third pulse a relay is energized which turns on the wind indicator illumination, CHAPI and the perimeter light pattern.

(3) The floodlights can be activated by keying the microphone five times after landing and deactivated manually or by radio.

(4) The lights will remain on until the pilot keys his microphone seven times. This will activate the turn off time delay relay which de-energize the lights at the end of the 15 minute delay.

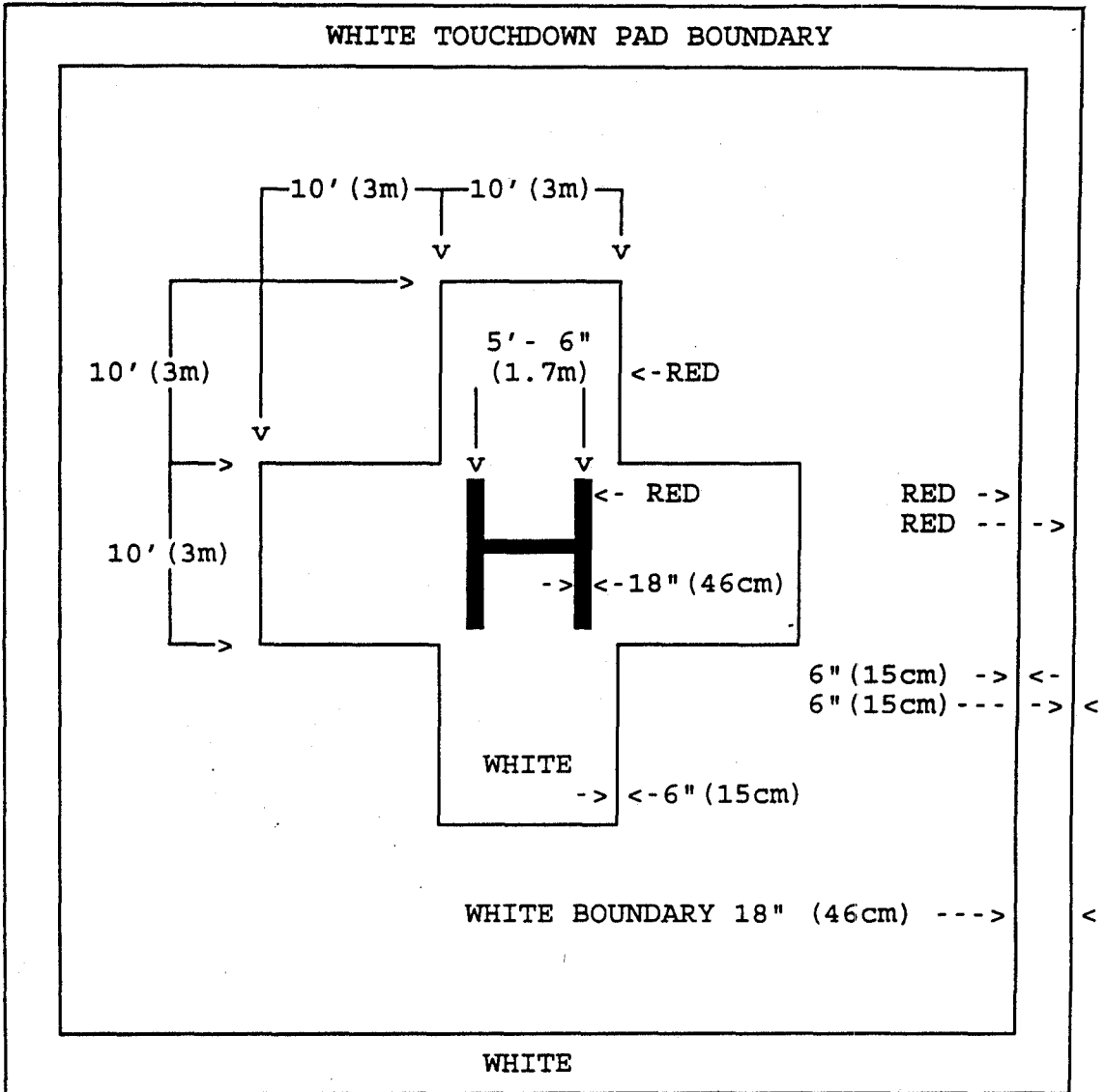
(5) When the lights have been activated by the radio controller the "OFF" function of the remote "ON-OFF" switch in the manual controller, located in the hospital emergency room (ER), will be bypassed.

(6) The brightness of the CHAPI, floodlights and perimeter lights can only be controlled from the manual control panel in the ER.

(7) If the microphone has been keyed seven times, (turn off signal), the radio controller can be reset by keying the microphone three or five times.

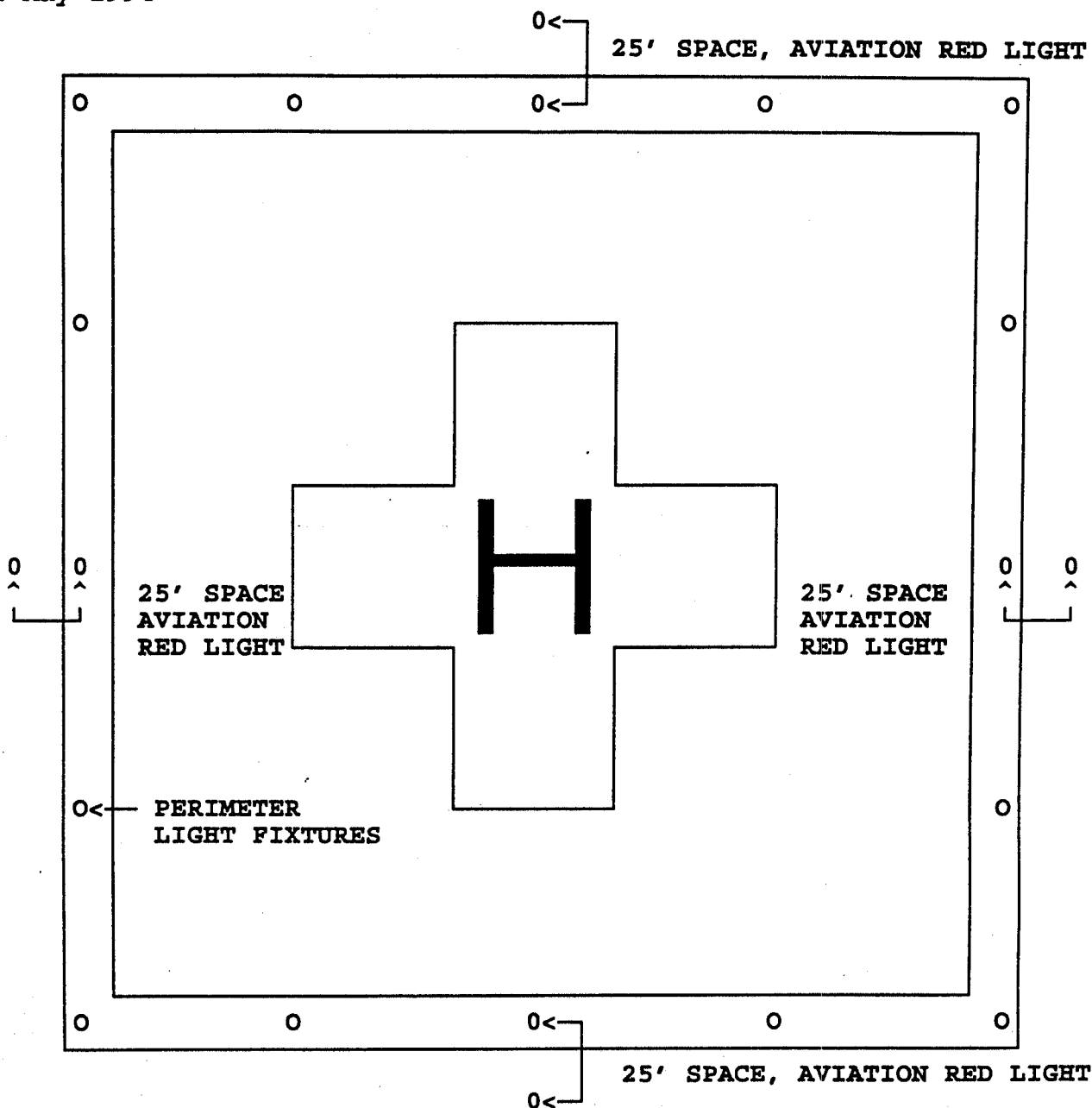
(8) The hospital ER shall be equipped with the manual controller (SEE attached FIGURE 11-3, HOSPITAL HELIPAD LIGHTING CONTROL DIAGRAM) and a base radio station to be capable of manual or radio operations.

4. DAY MARKING OF HELIPAD. Day marking of the hospital helipad shall be in accordance with attached FIGURE 11-1, HOSPITAL HELIPAD DAY MARKING, and ETL 1110-3-431, HOSPITAL HELIPAD DAY MARKING.



1. The cross and touchdown pad boundary markings are white and may be edged with a 6-inch (15cm) red border to improve visual acquisition. The 10 foot (3m) high letter "H" is red.
2. The touchdown pad boundary marking may be either a solid or segmented line.
3. Retroreflective paint shall be used for day marking (Red 11350 and White TT-P-85E or TT-P-1952).

FIGURE 11-1. HOSPITAL HELIPAD DAY MARKING



1. All perimeter lights are aviation yellow, Except for those identified above as aviation red. The spacing criteria between perimeter fixtures is covered in TM 5-811-5, ARMY AVIATION LIGHTING.
2. Types of aviation light fixtures are covered in STD DET 40-06-05, ARMY AVIATION LIGHTING FIXTURES.
3. See ETL 1110-3-431 for HOSPITAL HELIPAD DAY MARKINGS.

FIGURE 11-2. HOSPITAL HELIPAD LIGHTING PATTERN

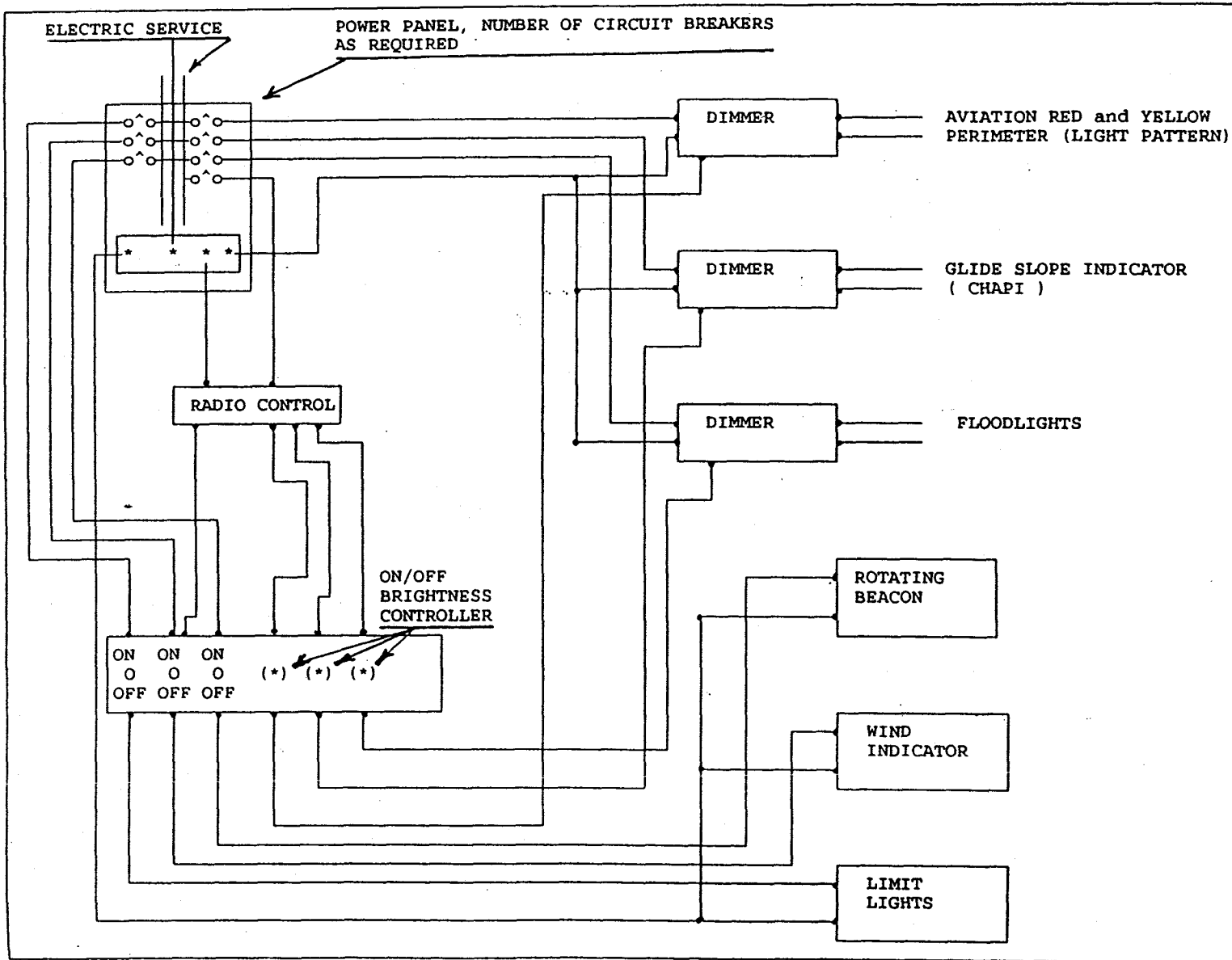


FIGURE 11-3. HOSPITAL HELIPAD LIGHTING CONTROL DIAGRAM

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TABLE 11-1

HOSPITAL HELIPAD LIGHTING REQUIREMENTS

FACILITY	DAY VMC NON-INSTRUMENT	DAY and NIGHT VMC NON-INSTRUMENT	FIXTURE TYPE
Aviation Red, Perimeter Omnidirectional Pattern Lights	O	X	SEE STD DET 40-06-05
Aviation Yellow Perimeter Pattern Lights	O	X	SEE STD DET 40-06-05
Floodlights Lights	X	X	SEE STD DET 40-06-05
Limit Lights	O	O	SEE STD DET 40-06-05
Wind Indicator	X	X	SEE STD DET 40-06-05
Rotating Beacon	X	X	SEE STD DET 40-06-05
Glide Slope Indicator (CHAPI)	O	O	SEE STD DET 40-06-05
DAY MARKING RETROREFLECTIVE PAINT	X	X	SEE ETL 1110-3-431
CONTROLS	X	X	SEE MEDICAL AEI
EMERGENCY POWER	X	X	SEE MEDICAL AEI

NOTES:

X - REQUIRED

O - OPTIONAL

SEE TM 5-811-5, "ARMY AVIATION LIGHTING," for technical requirements.

SEE STD DET 40-06-05, "ARMY AVIATION LIGHTING FIXTURES," for fixture application type.

SEE MEDICAL "ARCHITECTURAL ENGINEERING INSTRUCTIONS" (AEI) for hospital helipad guidance.