

TRANSPORT CANADA

Electromagnetic Interference (EMI): The effect of EMI, particularly on ILS localizer system integrity, is becoming increasingly significant. Most are metallic objects having appreciable horizontal dimensions such as structural steel towers, metal-clad buildings and power transmission lines. These objects reflect the ILS signals in unwanted directions, distorting the information provided to aircraft. High voltage power lines and substations radiate electromagnetic noise (EMN) due to corona, gap discharge, etc. This EMN may inhibit reliable reception of ILS signals.

RADAR

PROTECTION REQUIREMENTS : ELECTROMAGNETIC COMPATIBILITY

It is important to ensure that EMN radiated by power lines, substations and ISM apparatus will not interfere with the proper reception of ILS guidance signals in the approach path. For this reason the following guidelines should be observed:

1. power lines with voltages greater than 100 kV should be no closer than 1.8 km from the runway centre line and no closer than 3.2 km from the ends of the runway;
2. AC electrical substations for voltages greater than 100 kV should be no closer than 3.2 km from the centre line of the runway and no closer than 16 km from the ends of the runway;
3. power lines and substations should be designed, constructed and maintained using state of the art techniques to minimize radiated EMN in the ILS frequency bands.

RN 17254 / 1355.54 TRUE

LLZ

23.0019°

2400

FINAL SE

05

450'

500'

4

3

