

Installation of Ground Proximity Warning Sys.

A rule requiring the installation of ground proximity warning systems to alert pilots to potential terrain hazards was proposed recently by the Federal Aviation Administration for all large turbine-powered aircraft operated by the airlines, air travel clubs and air taxi operators.

The proposed rule is aimed at preventing accidents due to pilots inadvertently flying an airplane into the ground.

The equipment would automatically provide pilots with simultaneous visual and aural warnings of any terrain hazards when the aircraft is below 3,000 feet AGL (above ground level). The warnings would be issued continuously while the hazard existed.

Operators would be given 18 months after the effective date of the adopted rule to have the system in use. FAA noted that equipment already is available which may satisfy the need for a ground proximity warning system and the agency has approved its installation in a number of different types of aircraft.

As an interim measure, the FAA proposal would require the air carriers to modify existing radio altimeters on large turbine-powered aircraft to provide a discreet aural warning when the airplane descends below a predetermined height between 1,000 and 500 feet above the ground.

The change would have to be accomplished within six months of the effective date of the final rule and would not apply to air-

craft already equipped with a ground proximity warning system.

FAA has long held the view that present instrumentation and procedures in airline operations were safe and adequate as long as proper cockpit disciplines were maintained and appropriate flight operational procedures followed.

However, considering that there have been a number of air carrier accidents in recent years caused by inadvertent flight into terrain, the agency has determined that a ground proximity warning system on all turbine-powered planes may be required.

Although FAA has not yet developed technical standards for ground proximity warning systems, the proposed rule says the equipment must provide for warnings based on the rate of descent of the aircraft and the height of the aircraft above the terrain directly beneath the aircraft.

The system also must be capable of providing a warning based on the computed height

of the aircraft above the terrain along the aircraft's projected flight path.

In addition, the equipment must be capable of being programmed to take into consideration the landing gear and flap positions and the performance capability of the aircraft in determining the necessity of providing the required warnings.

The proposal is based on an advance notice of proposed rule making (73-14) published in the Federal Register on April 25, 1973.