
RADAR OPERATOR WARNING



Icom requires the radar operator to meet the FCC Requirements for Radio Frequency Exposure. A slotted waveguide array antenna with gain not greater than 27 dBi must be mounted a minimum of 5.5 meters (measured from the lowest point of the antenna) vertically above the main deck and all possible personnel. This is the minimum safe separation distance estimated to meet all RF exposure compliance requirements. This 5.5 meter distance is based on the FCC Safe Maximum Permissible Exposure (MPE) distance of 3.5 meters added to the height of an adult (2 meters) and is appropriate for all vessels.

For watercraft without suitable structures, the antenna must be mounted so as to maintain a minimum of 1 meter vertically between the antenna, (measured from the lowest point of the antenna), to the heads of all persons AND all persons must stay outside of the 3.5 meter MPE radius.

Do not transmit with radar and antenna when persons are within the MPE radius of the antenna, unless such persons (such as driver or radar operator) are shielded from antenna field by a grounded metallic barrier. The MPE Radius is the minimum distance from the antenna axis that person should maintain in order to avoid RF exposure higher than the allowable MPE level set by FCC.

FAILURE TO OBSERVE THESE LIMITS MAY ALLOW THOSE WITHIN THE MPE RADIUS TO EXPERIENCE RF RADIATION ABSORPTION WHICH EXCEEDS THE FCC MAXIMUM PERMISSIBLE EXPOSURE (MPE) LIMIT.

IT IS THE RESPONSIBILITY OF THE RADAR OPERATOR TO ENSURE THAT THE MAXIMUM PERMISSIBLE EXPOSURE LIMITS ARE OBSERVED AT ALL TIMES DURING RADAR TRANSMISSION. THE RADAR OPERATOR IS TO ENSURE THAT NO BYSTANDERS COME WITHIN THE RADIUS OF THE MAXIMUM PERMISSIBLE EXPOSURE LIMITS.

Determining MPE Radius

THE MAXIMUM PERMISSIBLE EXPOSURE (MPE) RADIUS HAS BEEN ESTIMATED TO BE A RADIUS OF ABOUT 3.5 M PER OET BULLETIN 65 OF THE FCC.

THIS ESTIMATE IS MADE ASSUMING THE MAXIMUM POWER OF THE RADAR AND ANTENNAS WITH A MAXIMUM GAIN OF 27 dBi ARE USED FOR A SHIP MOUNTED SYSTEM.