## Chapter E 166

## **SHIPS**

E 166.01	Vessels to be protected	E 166.04	Vessels of other than
E 166.02 E 166.03	Radio antennas Vessels with steel hulls	E 166.05	steel construction Metal standing rigging
	and steel masts	E 166.06	and Jacob's ladders Ground connections

E 166.01 Vessels to be protected. Vessels shall be protected as indicated below irrespective of the geographical area in which they operate.

History: Cr. Register, November, 1961, No. 71, eff. 12-1-61.

E 166.02 Radio antennas. Radio antennas shall be provided with means for grounding during electrical storms.

History: Cr. Register, November, 1961, No. 71, eff. 12-1-61.

E 166.03 Vessels with steel hulls and steel masts. If there is metallic contact between steel hulls and steel masts no further protection against lightning is necessary.

History: Cr. Register, November, 1961, No. 71, eff. 12-1-61.

E 166.04 Vessels of other than steel construction. The grounding of radio antennas constitutes sufficient protection for vessels of other than steel construction, except where wooden masts or spars are employed, in which case all metal fittings such as trucks and bands shall be effectively and permanently grounded by means of 1 x 1/32 inch copper strips secured to spars by brass screws and led to the nearest grounded metal-hull structure. Similar grounding of metal fittings at the extremities of wooden masts and spars constitutes adequate protection where no radio antenna is installed.

History: Cr. Register, November, 1961, No. 71, eff. 12-1-61.

E 166.05 Metal standing rigging and Jacob's ladders. Where metal standing rigging and Jacob's ladders are installed they shall be effectively grounded at the lower ends in all cases (i.e. whether the vessel is equipped with a radio antenna or not) except where such rigging or Jacob's ladders are broken up into insulated sections not over 10 feet in length for radio purposes by means of suitable insulators, in which case grounding at the lower ends is not necessary. Grounding shall be carried out by means of stranded wire shunts ¼ inch in diameter, around dead eyes, lanyards, shackles, rigging screws, thimbles, etc., these shunts to be stranded, laid around the bright rigging, then parcelled and sewed.

History: Cr. Register, November, 1961, No. 71, eff. 12-1-61.

E 166.06 Ground connections. In vessels having a steel hull, the hull itself constitutes an adequate ground. In vessels having wooden hulls, ground connection shall be made by means of a copper plate not less than 36 square feet in area secured to the outside of the hull below the light water line.

History: Cr. Register, November, 1961, No. 71, eff. 12-1-61.

Electrical Code, Volume 2 Register, November, 1961, No. 71