

SECTION 11

Radio Aids to Air Navigation—Standards of Field Strength and Interference Ratios

1. Whereas the Inter-American Radio Conference has carefully considered the various resolutions of the September 1937 Inter-American Technical Aviation Conference of Lima, and in particular resolutions XIV, XVII and XVIII which were referred to this Conference and

2. Considering

- (a) the great importance of radio aids to air navigation, the phenomenal growth of air traffic and the further expansion which will certainly take place in the future;
- (b) the exacting requirements of such radio aids to air navigation with respect to stability of emissions as affected by multiple path transmission which can be minimized to the greatest extent by selection of frequencies least subject to sky wave effects;
- (c) the extremely limited range of frequencies which possesses the necessary propagation characteristics as mentioned in (b) above;
- (d) the absolute dependence of aircraft in flight upon radio for navigational guidance and communication;
- (e) the vast number of aircraft throughout the world that now use, and must continue to share the limited number of frequencies suitable for aids to air navigation, therefore making the strictest economy of use necessary in order that all may be accommodated with a minimum of interference;
- (f) the standardization which therefore seems desirable in order to facilitate international flying by co-ordination, and, as far as possible, standardization of equipment and operating procedure;
- (g) that it is possible for a single ground station such for instance as the radio range beacon to simultaneously give navigational guidance to a practically unlimited number of aircraft;
- (h) the grave responsibility of radio aids to air navigation for rendering reliable service to aircraft which, under certain circumstances, may be entirely dependent for their safety upon uninterrupted reception of satisfactory navigational signal; and
- (i) the short period of time that has been available for engineering study since the September 1937 Inter-American Technical Aviation Conference at Lima;

3. The Inter-American Radio Conference resolves:

- (a) That in accordance with the recommendations of the Lima Convention the countries participating in this conference should prepare and exchange not later than June 1, 1938, all pertinent data which may be of value in the drafting of the following tables which may serve as a guide in connection with the application of the engineering principles herein set forth.

Table I listing various types of radio aids to air navigation which have been approved for service operation;