

GENERAL INFORMATION

**117.975 - 137.0 MHz
AIR TRAFFIC CONTROL
OPERATIONS**

The minimum separation between assignable frequencies in the aeronautical mobile (R) service shall be 8.33 kHz.

It is recognized that in some regions or areas, 100 kHz, 50 kHz or 25 kHz channel spacing provides an adequate number of frequencies suitably related to international and national air services and that equipment designed specifically for 100 kHz, 50 kHz or 25 kHz channel spacing will remain adequate for services operating within such regions or areas. It is further recognized that assignments based on 25 kHz channel spacing as well as 8.33 kHz channel spacing may continue to co-exist within one region or area.

118 - 121.4 MHz inclusive	International and National Aeronautical Mobile Services
121.5 MHz	121.5 MHz
121.6 - 121.9917 MHz inclusive	International and National Aerodrome Surface Communications
122 - 123.05 MHz inclusive	National Aeronautical Mobile Services
123.1 MHz	Auxiliary frequency SAR
123.15 - 123.6917 MHz inclusive	National Aeronautical Mobile Services with the exception of 123.45 MHz.
123.45 MHz	Worldwide air-to-air communications
123.7 - 129.6917 MHz inclusive	International and National Aeronautical Mobile Services
129.7 - 130.8917 MHz	National Aeronautical Mobile Services
130.9 - 136.875 MHz inclusive	International and National Aeronautical Mobile Services
136.9 - 136.975 MHz inclusive	International and National Aeronautical Mobile Services Reserved for VHF air-ground data link communications.

EFFECTIVE RANGE OF RADIO TRANSMISSION

The range of VHF transmissions is normally about 7% more than an actual line of sight, and can be determined by the formula:

$$D = K \sqrt{h}$$

Where:		
D	=	distance in nautical miles;
h	=	height of the aircraft station above earth;
K	=	(corresponding to an effective earth's radius of 4/3 of the actual radius);
	=	2.22 when h is expressed in metres; and
	=	1.23 when h is expressed in feet.