Worldwide, there are thousands of shortwave listeners. The shortwave hobby can be very exciting. Newscasts of a country where important events are taking place give you a sense of immediacy and participation that reports on local stations can never deliver.

Being a shortwave listener requires no special knowledge. Random tuning is a good way to become acquainted with various bands and stations. But as you gain expertise, you will probably acquire special listening techniques.

Radio Shack's Shortwave Listening Guide (Cat. No. 62-1084) is an excellent introduction to this entertaining hobby.

BAND ALLOCATION

Certain portions of the radio frequency spectrum are set aside for specific purposes. Each range of frequencies is called a radio band. The following charts list some of the most interesting band allocations.

Ham Radio Frequencies

Ham radio operators often broadcast emergency information when other means of communication break down. Hams use Morse code (called continuous wave) and single sideband. The following chart shows the continuous wave frequencies you can receive on the DX-350. The DX-350 cannot receive single sideband signals.

Continuous Wave	Single Sideband
3,500 - 3,800 kHz	3,800 - 4,000 kHz
7,000 - 7,150 kHz	7,150 - 7,300 kHz
14,000 - 14,200 kHz	14,200 - 14,350 kHz
21,000 - 21,250 kHz	21,250 - 21,450 kHz
28,000 - 28,500 kHz	28,500 - 29,700 kHz

Time Standard Frequencies

The National Bureau of Standards operates station WWV in Fort Collins, Colorado on 2,500, 5,000, 10,000, 15,000, and 20,000 kHz. These stations give out the exact time of day at specified intervals.

You can pick up Canada's station CHU on 7,335 kHz.
You can pick up Australia's station VNG on 12,000 kHz.

International Radio Station

International commercial broadcast stations are found in the following bands. You can hear these most often during the evening hours between 6:00 pm and midnight-your time. Programming (often in English) usually contains the news, commentaries, music, and special features reflecting the culture of the specific country.

European stations often refer to the wavelength of bands in meters instead of frequencies. For example, you hear, "the 19-meter band." The following list shows some of the most popular bands.

49 meters = 5,800 - 6,200 kHz
41 meters = 7,100 - 7,500 kHz
31 meters = 9,500 - 9,900 kHz
25 meters = 11,650 - 12,050 kHz
19 meters = 15,100 - 15,600 kHz
16 meters = 17,500 - 17,900 kHz
13 meters = 21,450 - 21,850 kHz
11 meters = 25,600 - 26,100 kHz

NOTE: The 7,100 kHz to 7,300 kHz range is shared by both hams and international radio stations. You can expect a lot of interference in this band.

Frequency Conversion

To find your way around international broadcasts, it is helpful to be able to convert frequencies from MHz to kHz to MHz, and MHz to meters.

1 MHz (million) = 1,000 kHz (thousand)

To convert MHz to kHz, multiply to 1,000:
9.62 Mhz x 1000 = 9620 kHz

To convert from kHz to MHz, divide by 1,000:

$$\frac{2780 \text{ kHz}}{1000} = 2.780 \text{ MHz}$$

To convert 7.1 MHz to meters, divide the megahertz into 300.

$$\frac{300}{7.1 \text{ MHz}} = 42.25 \text{ meters}$$

(ALL-12/12/94)