

This is a summary of the first part of a guide to HF, written for Essex Ham by Charlie Davy M0PZT. It introduces the HF bands, explains how they work and tells you what you can expect at a given time.

### **1.8MHz (160m) and 3.5MHz (80m)**

Restricted to short range (under 300 miles) during the day due to D-Layer absorption but after sunset, the atmosphere reflects the waves allowing signals from Europe and afar. Dipoles for these bands are 80m and 40m in length respectively – so you will struggle if you have a typical 50ft garden.

### **7MHz (40m)**

During daylight, 40m is good for UK stations (“inter-G”) up to 500 miles. With Essex being close to the Continent, easy QSOs over to France, Germany and the Netherlands. As the sun sets, you’ll hear less UK-stations and more Continentals – Overnight, expect signals from North and South America.

### **10MHz (30m) – WARC band, contest-free \***

A small band, 10.100 – 10.150MHz with no voice operation. This band is for CW (Morse) and datamodes such as PSK, RTTY and JT65. Sitting in-between 7MHz and 14MHz, it enjoys properties of both bands with fairly local (inter-EU) propagation during the daytime. After-dark you may hear stations from America.

### **14MHz (20m)**

Known as the “DX Band” due to its reliability for *something* to be worked at any time of the day. Popular during the day with signals from across the World - if you want to work Australia, you’ll need to be an early riser. Unlikely to hear much activity from within 500 miles unless the station is very local to you.

### **18MHz (17m) – WARC band, contest-free \***

Similar in many ways to 14MHz, this band is also affected by solar activity. During the day, 17m typically offers great propagation over to America with South America getting stronger late afternoon until sunset.

### **21MHz (15m)**

Another interesting DX band – If you’re interested in working Asia, listen just after sunrise and until about Midday. You can then expect signals from the USA for the remainder of the day. This is a fairly large band so there’s plenty of room for CW, digimodes and SSB.

### **24.9MHz (12m) – WARC band, contest-free \***

Offering some of the properties of 21MHz and some of 28MHz, this is a band that can experience Sporadic E openings during the summer.

### **28MHz (10m)**

Affected by sunspots, and ranges from *nothing* to *chaos*. Sporadic E is common May through August and during the peak of the sunspot-cycle, regular long-distance communications are possible. Often enjoyed by mobile stations operating 10m FM making QSOs between the UK and USA easy.

*\* Note: The WARC bands (30m, 17m, 12m) are so-called due to their inclusion in the Amateur Radio bandplan during the **World Administrative Radio Conference** in 1979 and are free of contest activity*

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