

The Electromagnetic Spectrum

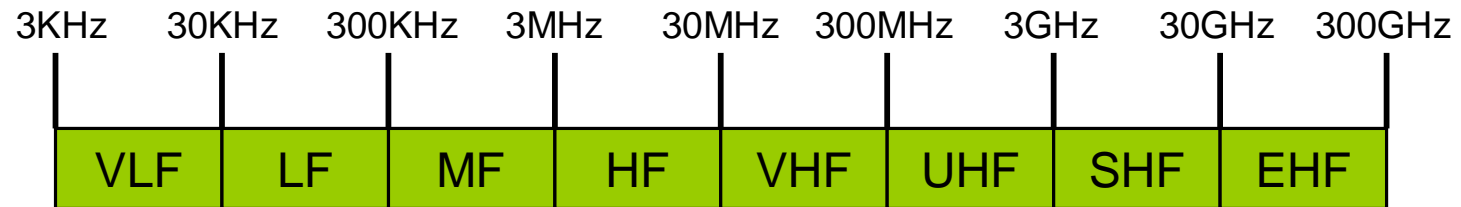
What is it?

Where do Radio Amateurs hide?

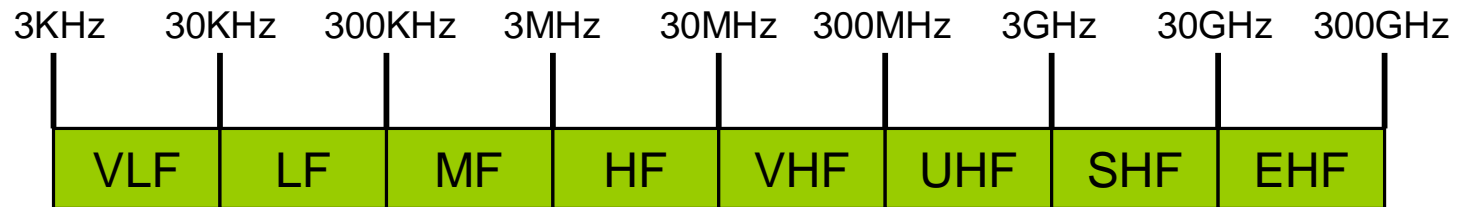
The conventional radio spectrum
is divided into segments:

Very Low frequency	VLF
Low Frequency	LF
Medium Frequency	MF
High Frequency	HF
Very High Frequency	VHF
Ultra High Frequency	UHF
Super High Frequency	SHF
Extra High Frequency	EHF

We can put these segments in a line and then show the frequencies involved



If we divide the frequency into the speed of light, we get a wavelength value too...

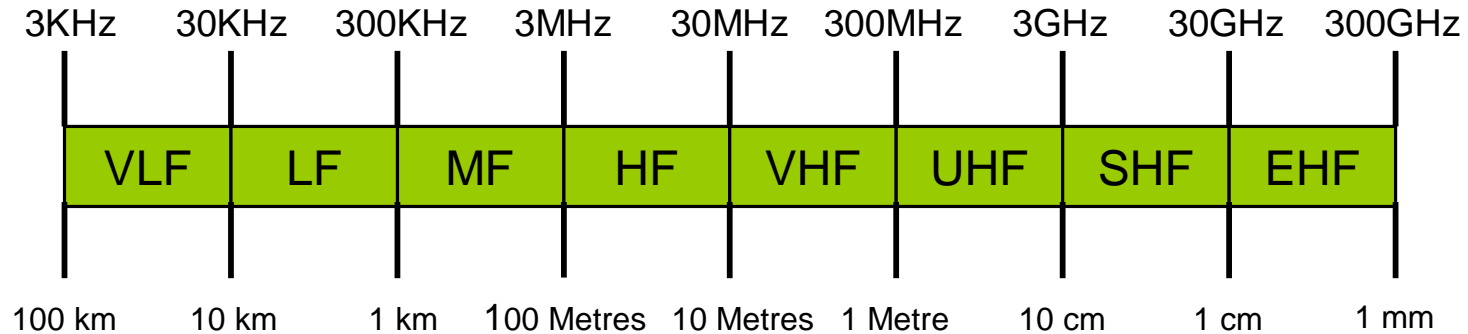


$$\text{WAVELENGTH (in Metres)} = \frac{300,000,000 \text{ metres per second}}{\text{Frequency in Hertz}}$$

Or...

$$\text{WAVELENGTH (in Metres)} = \frac{300}{\text{Frequency in Megahertz}}$$

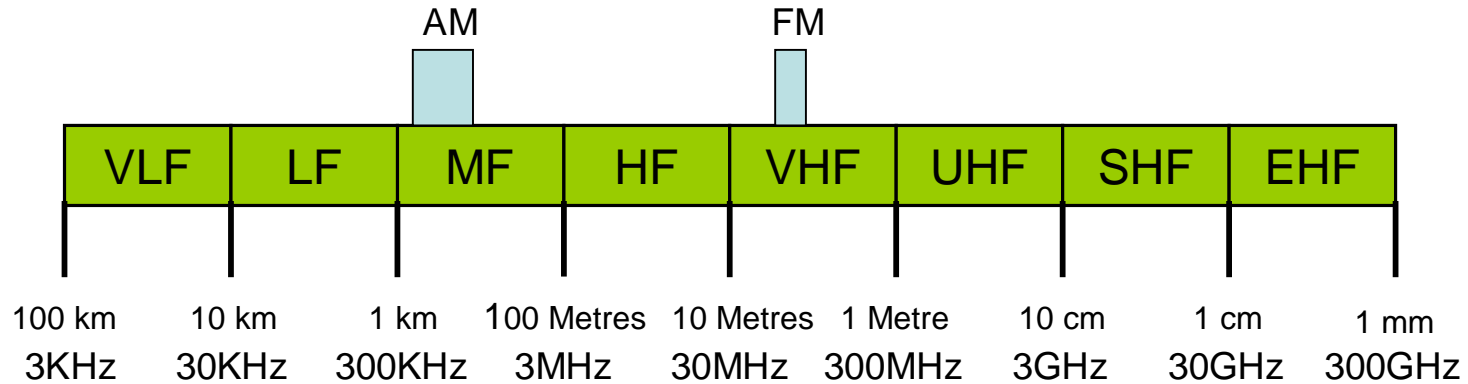
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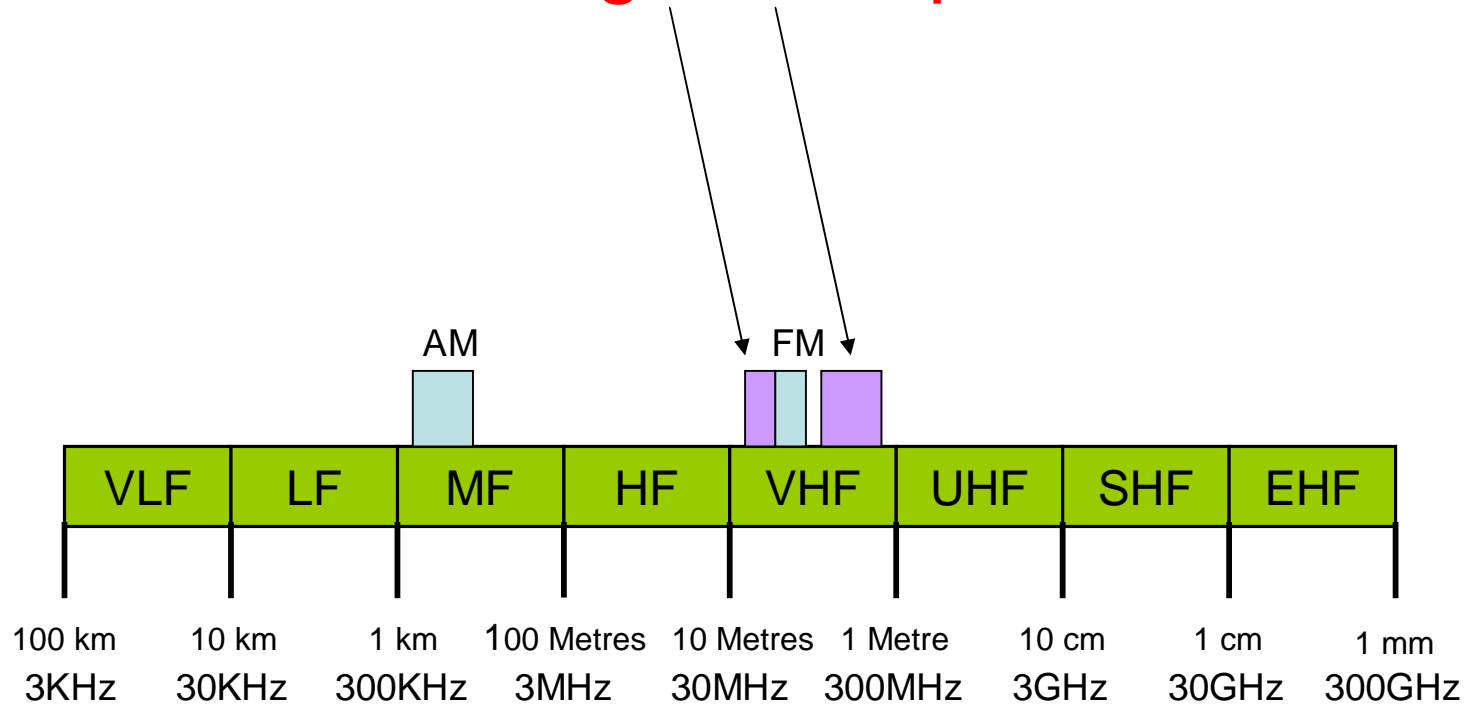
Notice how the wavelength gets shorter
As the frequency increases

Lets add a few common broadcast frequencies

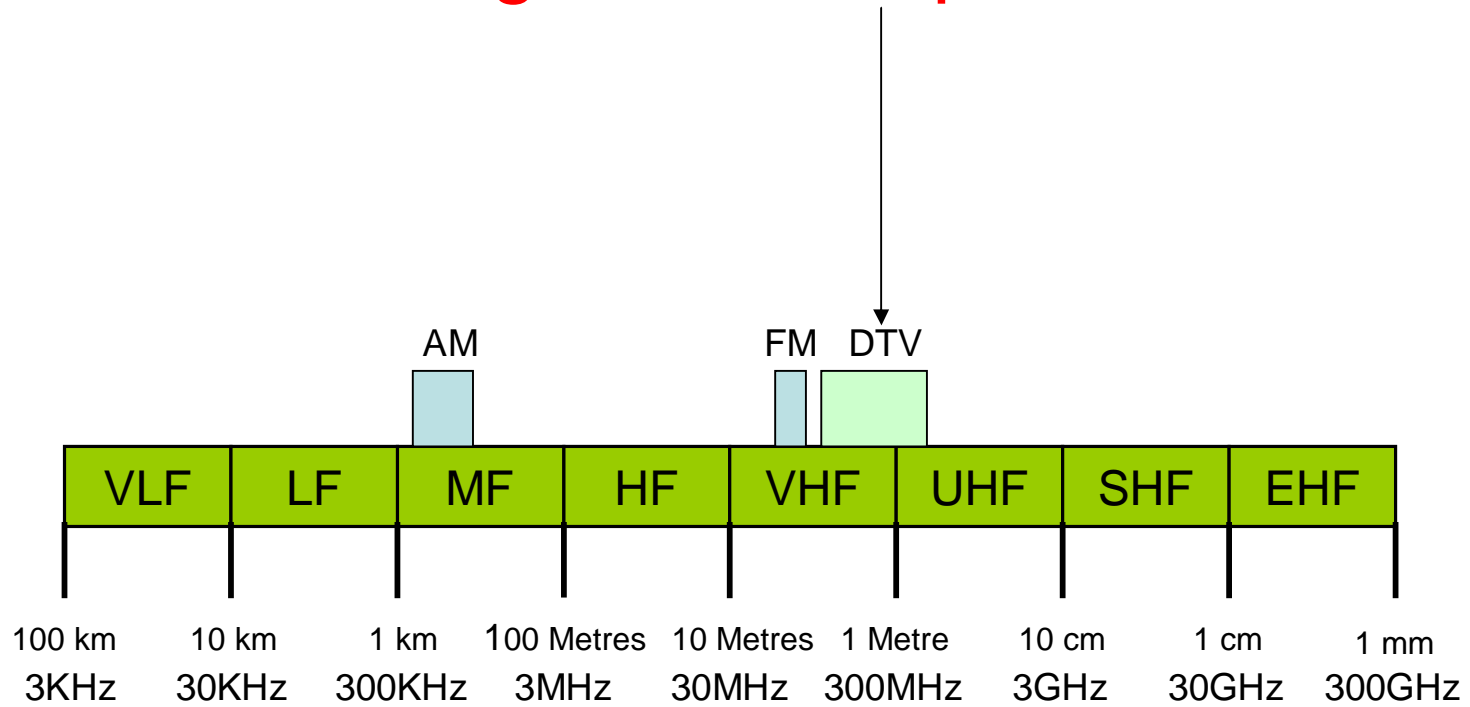
AM & FM Broadcasts



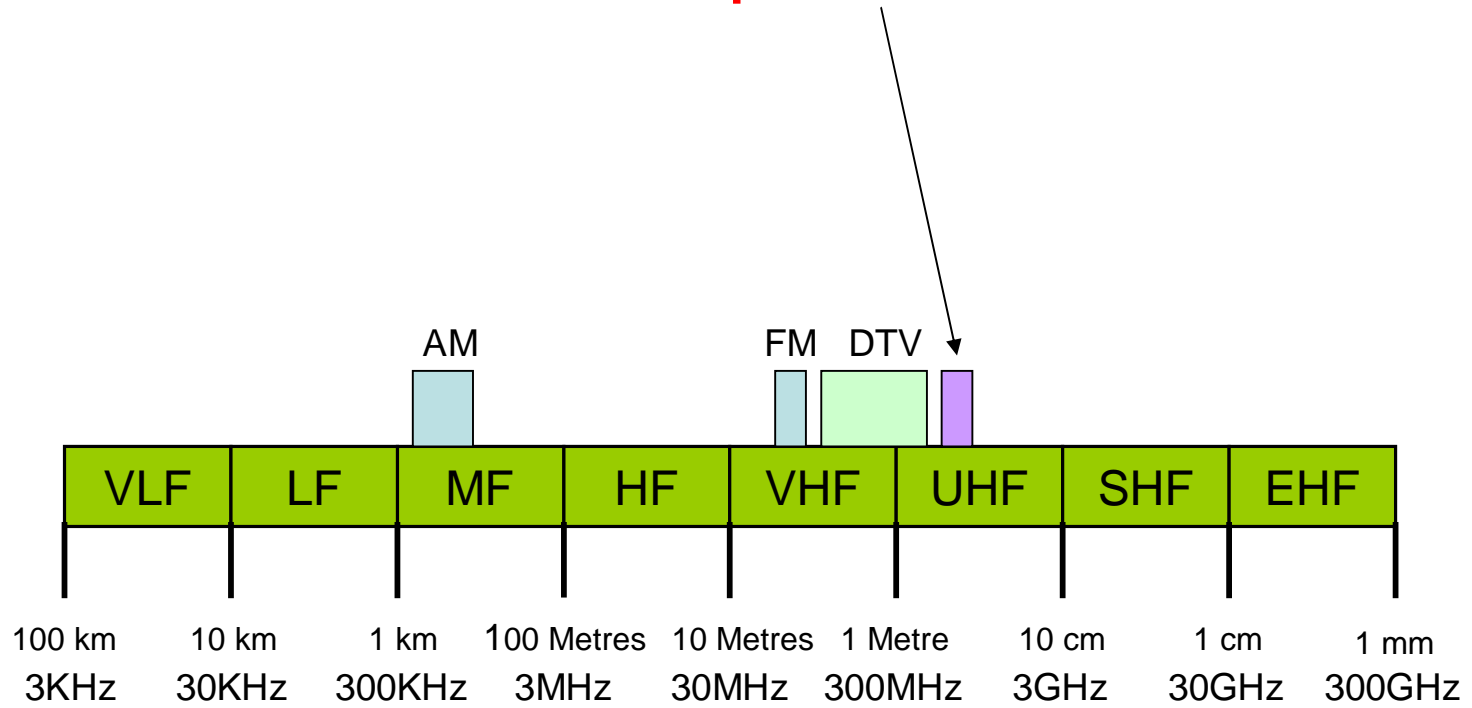
Old Analog TV frequencies

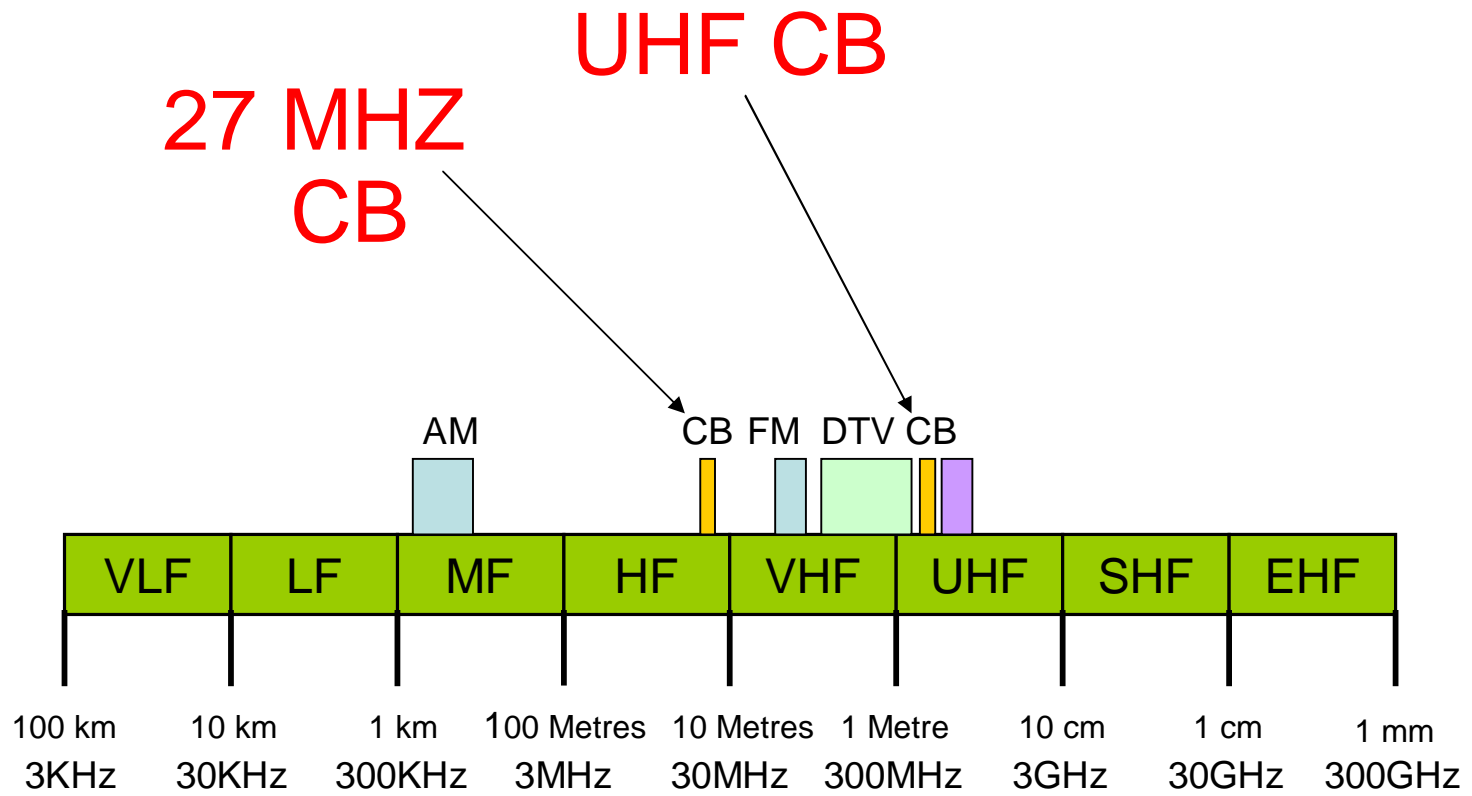


New Digital TV frequencies

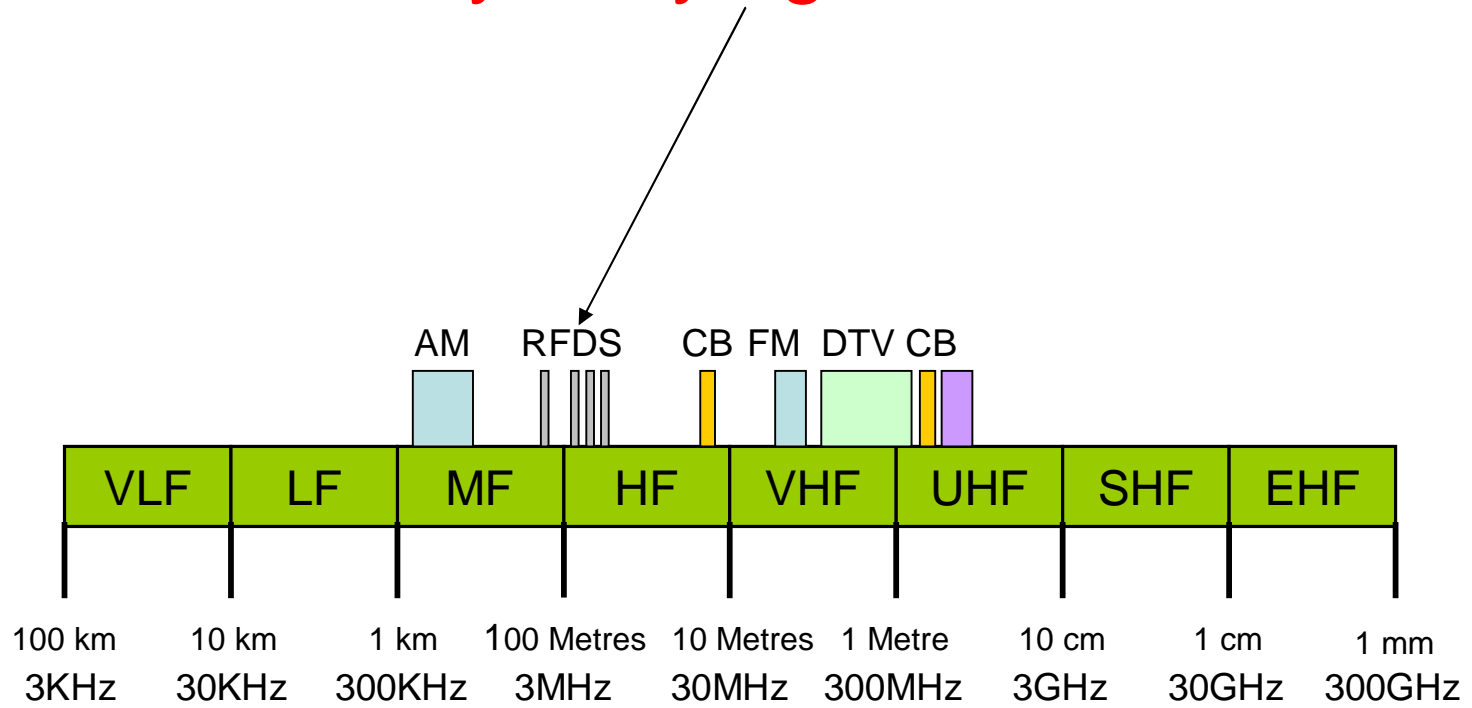


Mobile phones

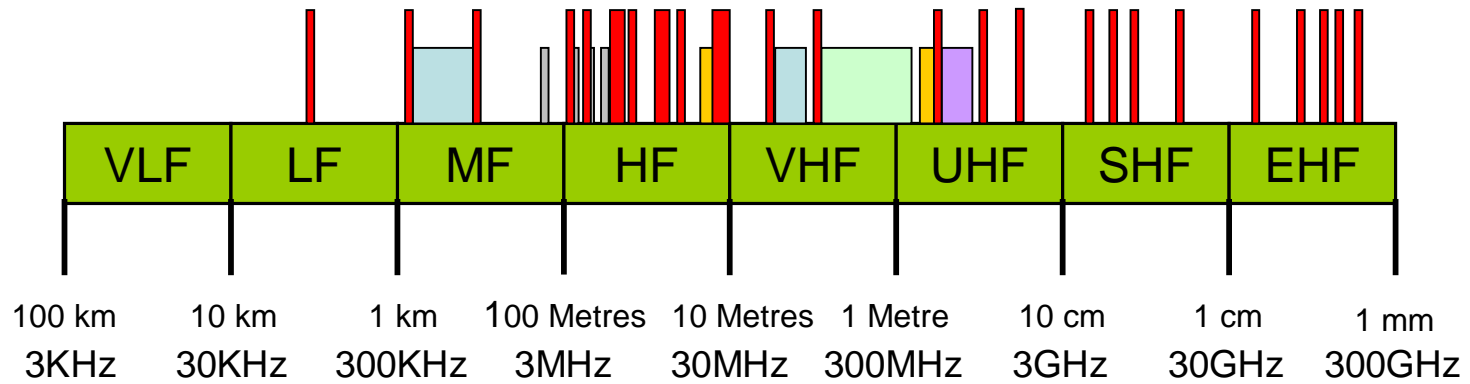




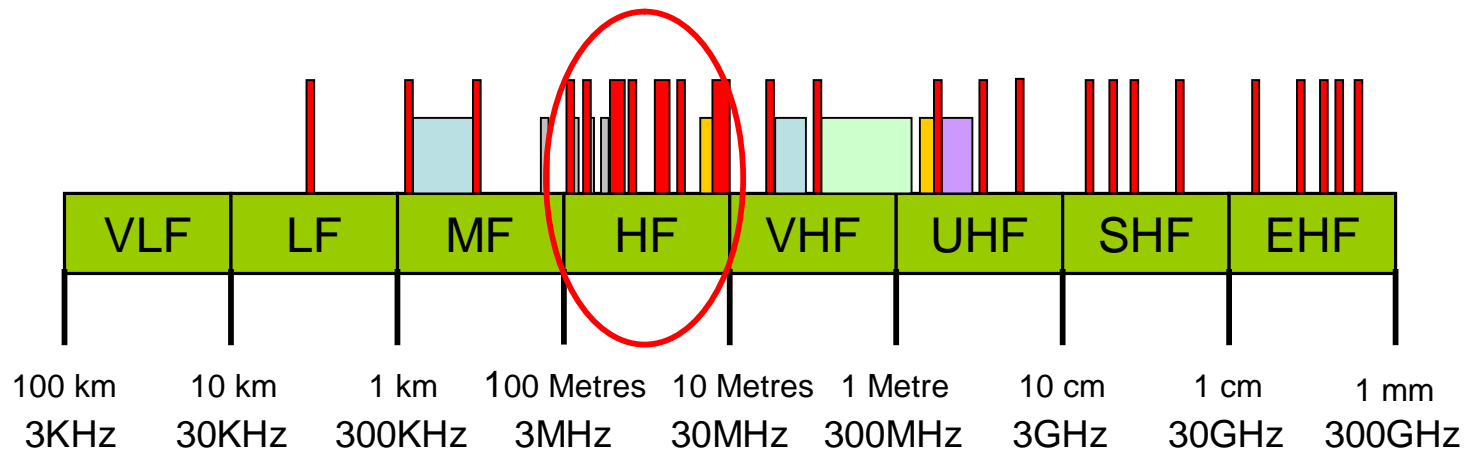
Royal Flying Doctor



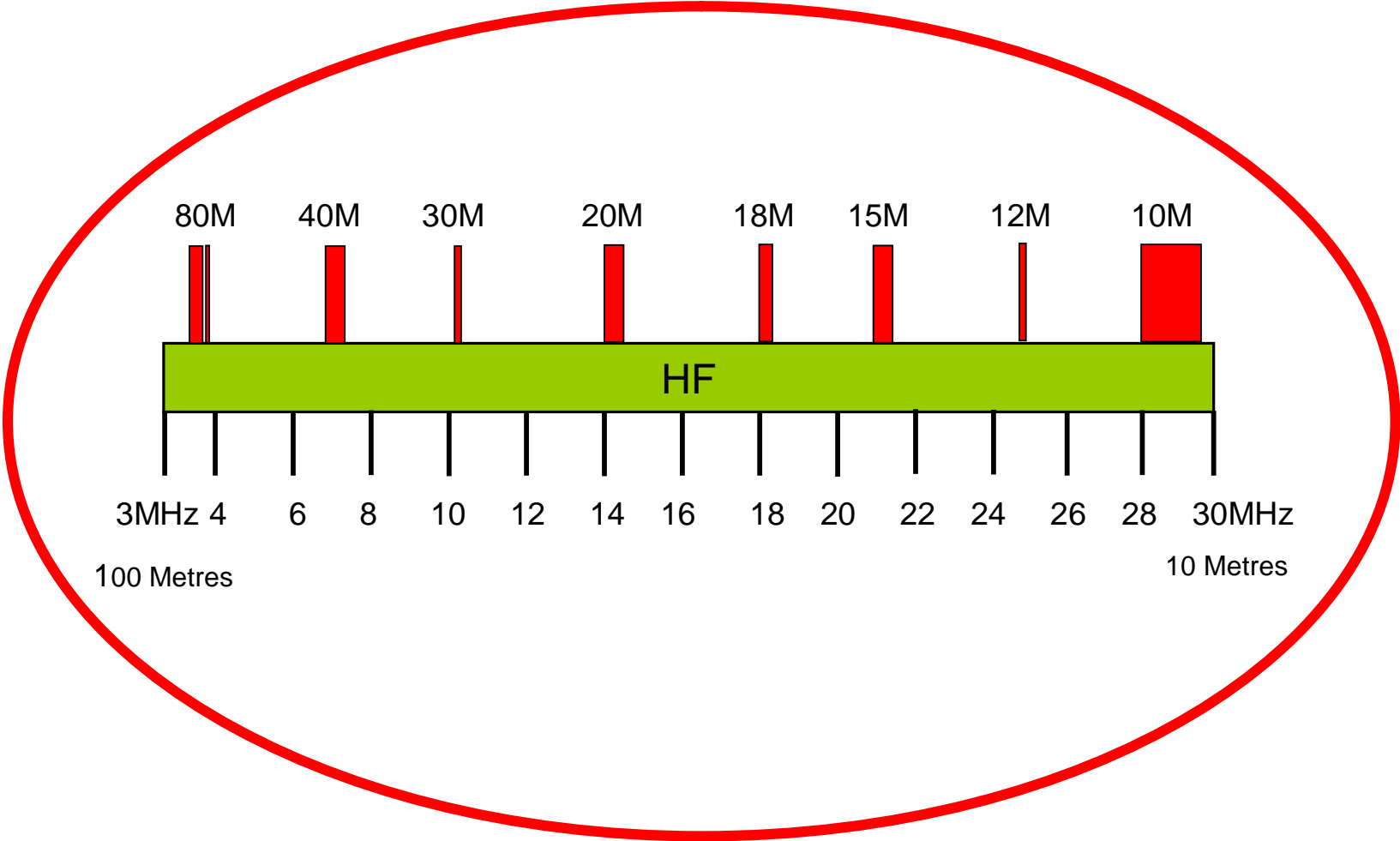
And now to add in Amateur Radio bands...



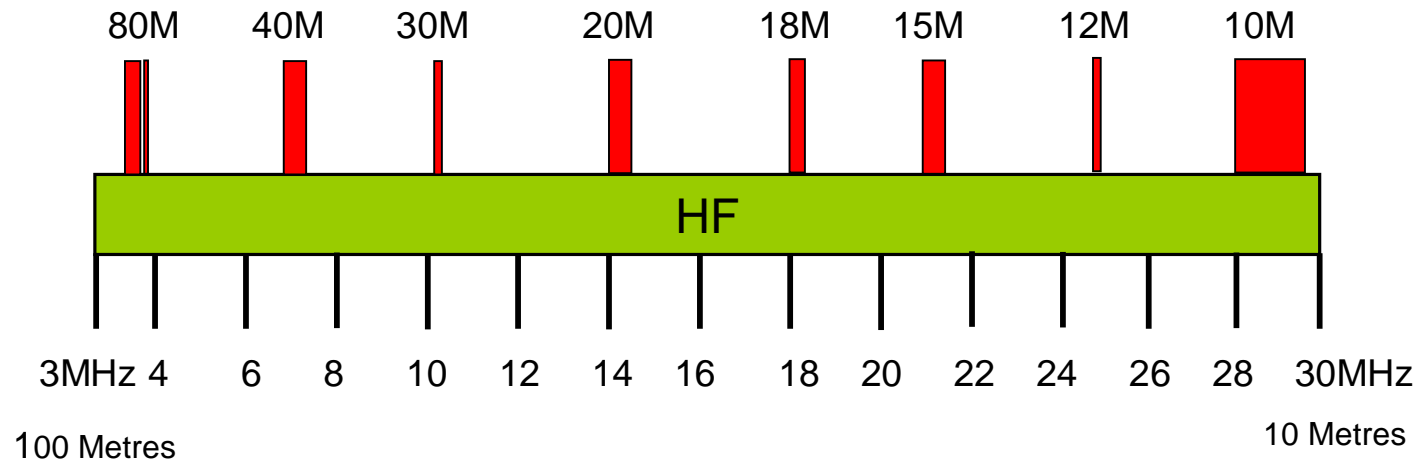
Lets just focus on HF bands for a moment



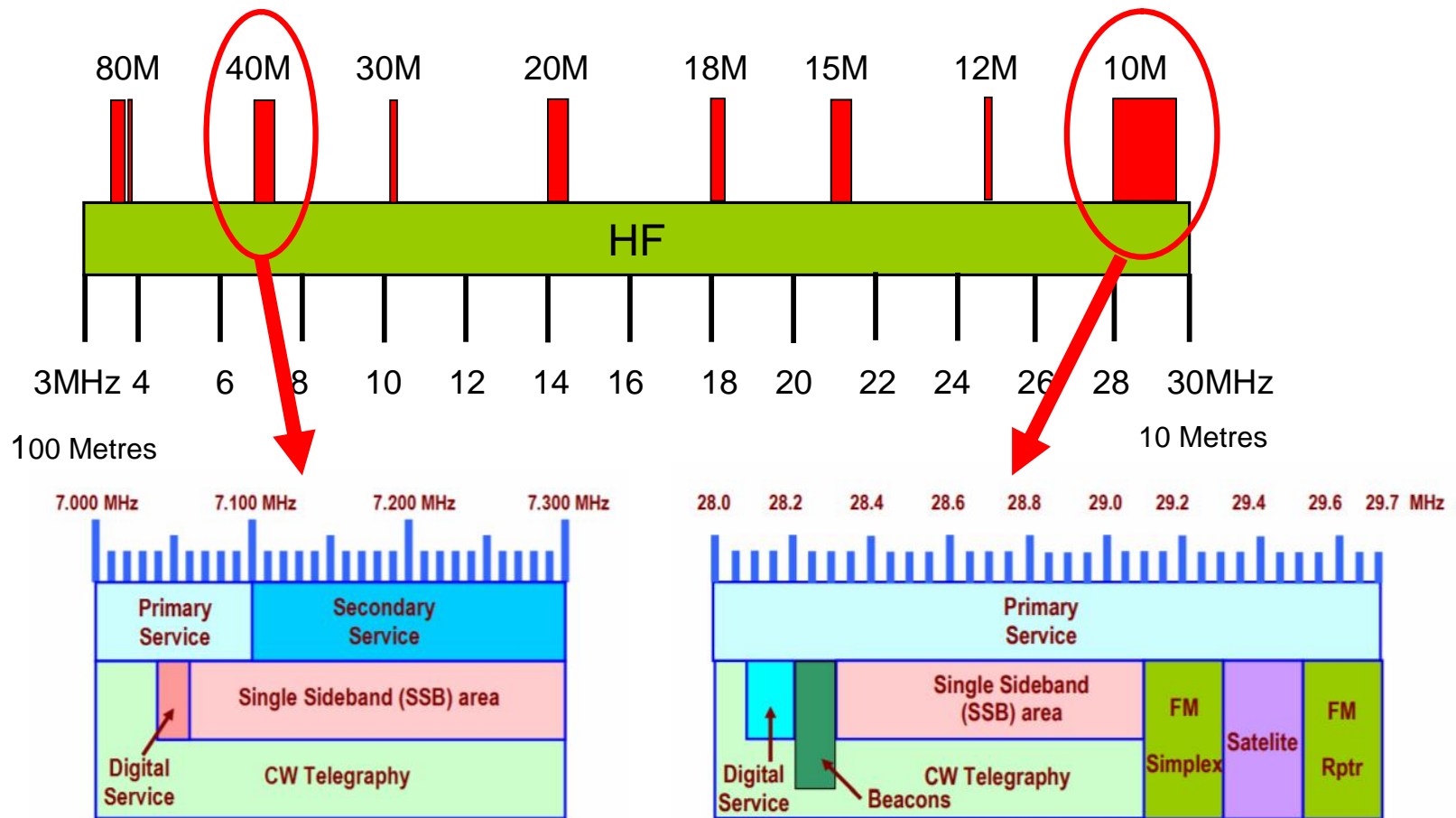
HF Amateur Bands



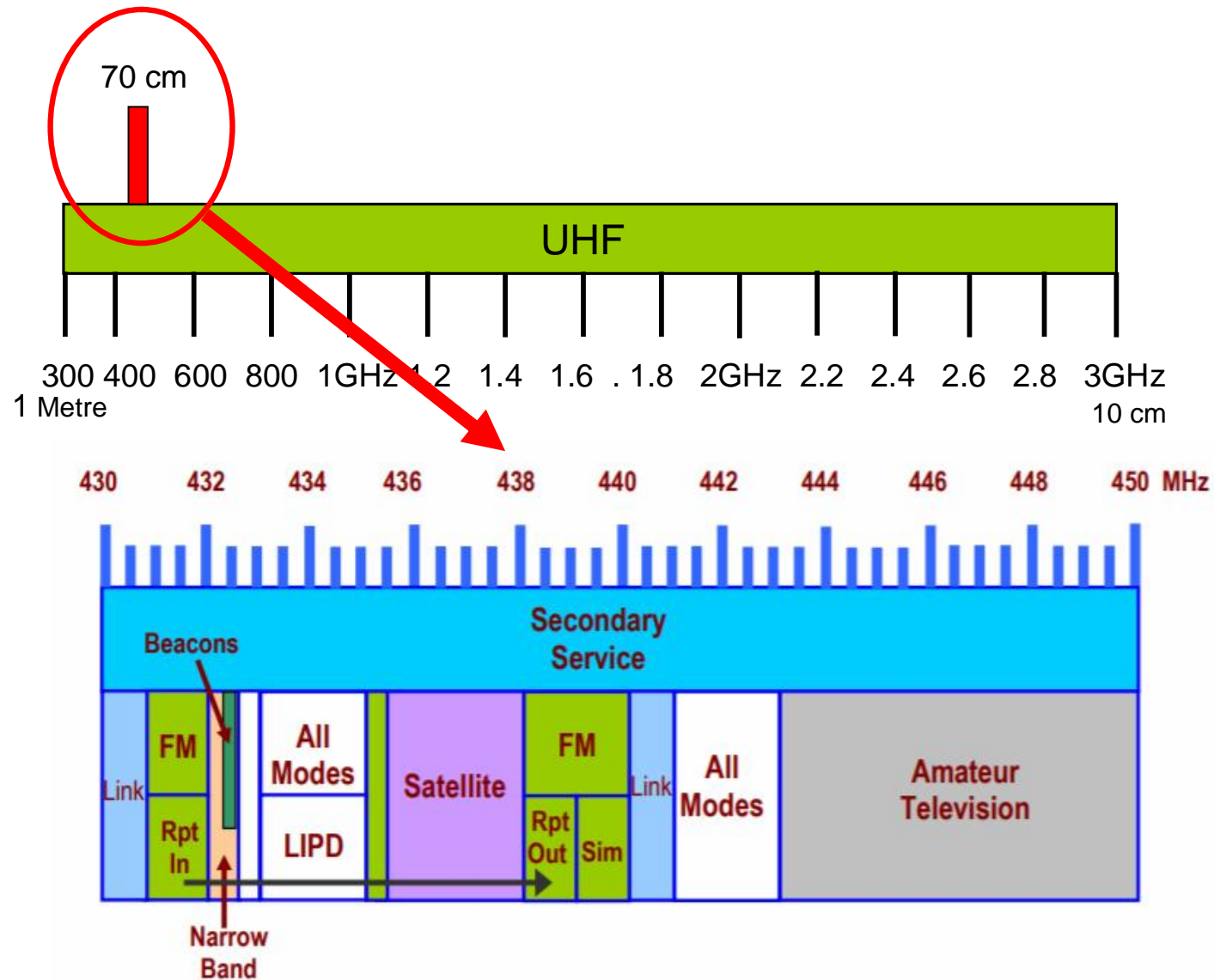
Each band has different characteristics



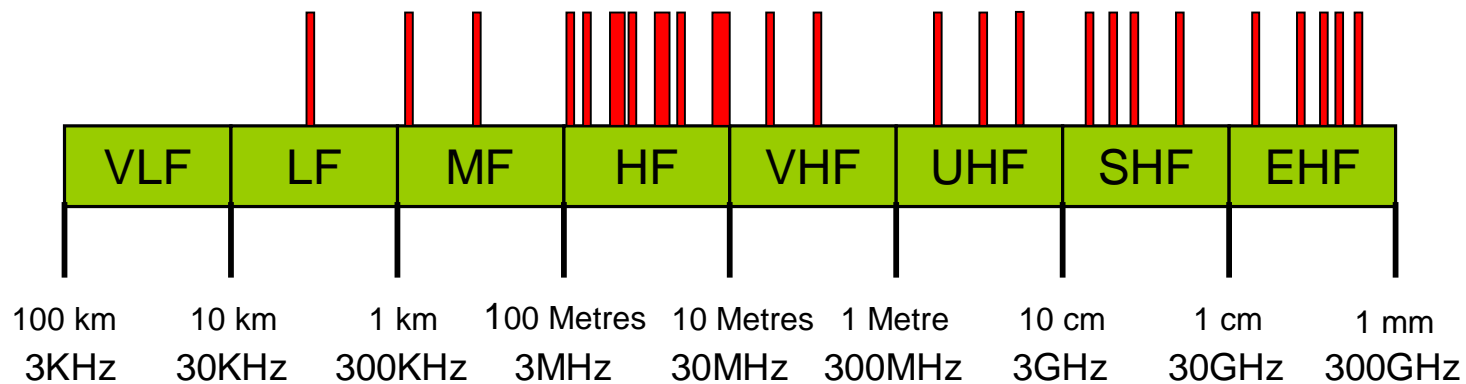
Each band has a different plan



70cm is an important UHF band



Each Amateur band has its own characteristics and style.
Each band has its own plan.
It's up to each operator to learn how to make the most of the bands we can access.



**Full Amateur Radio
band plans may be viewed
on the RASA website**

RASA: vkradioamateurs.org

<http://vkradioamateurs.org/wp-content/uploads/2018/02/Australian-Amateur-Band-Plans.pdf>