Types of radio waves

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What is radio waves?

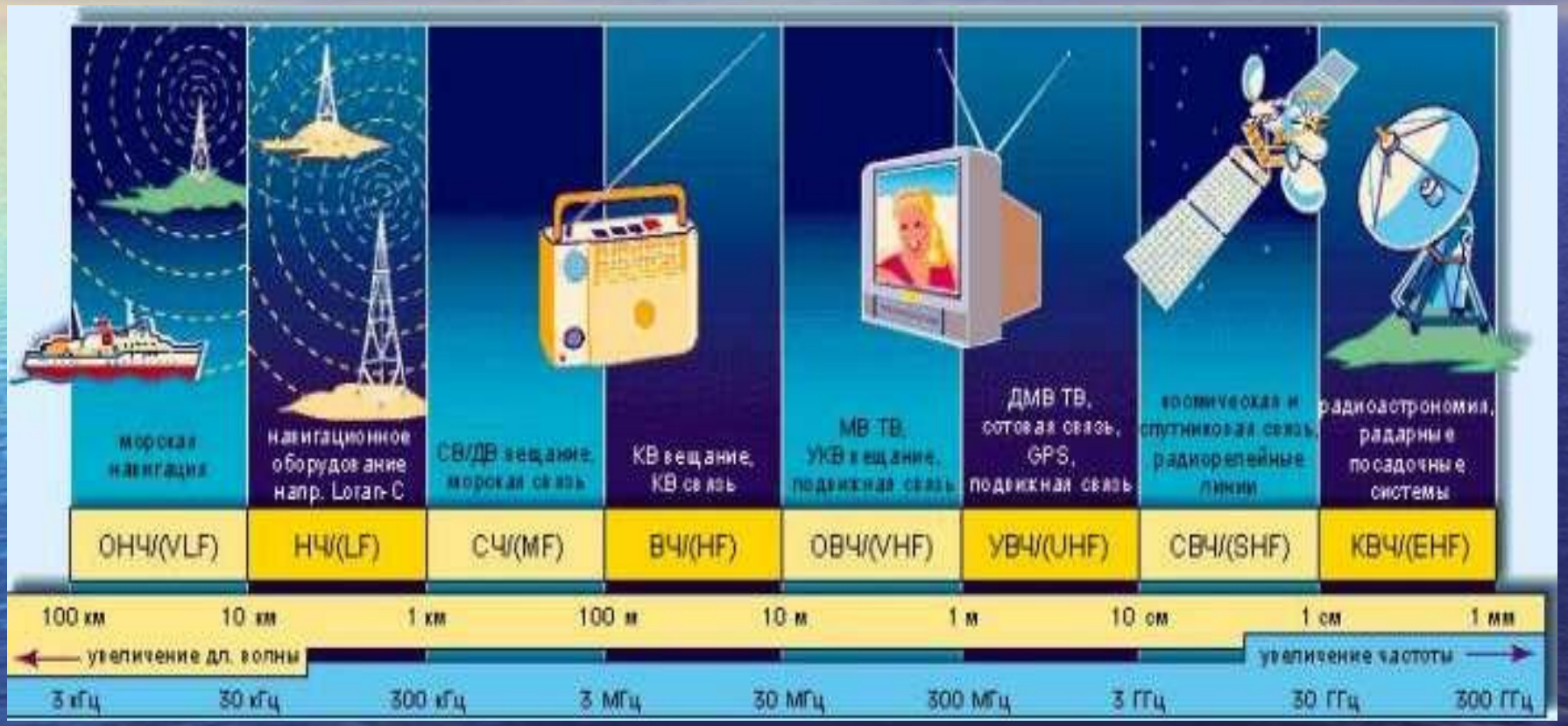
- electromagnetic waves propagating through space at the speed of light
- transferred through space energy emitted from an electromagnetic oscillation generator
- born at the change of the electric field
- characterized by frequency, wavelength and power portable energy

Radio waves range

- for aeronautical communications
- for ground connection
- **TV**
- **Radio transmission**
- For space communications
- **For sea communications**
- Transmission data and medicine
- For radiolocation and radionavigation

Frequency range	The name of the range	the wavelength range	Wave length
3–30 кГц	Very low frequency	Myriametre	100–10 км
30–300 кГц	Low frequency	Kilometer	10–1 км
300–3000 кГц	MIDs	Hectometre	1–0.1 км
3–30 МГц	High frequency	Decameter	100–10 м
30–300 МГц	Very high frequency	Meter	10–1 м
300–3000 МГц	Ultra high frequency	UHF	1–0.1 м
3–30 ГГц	Over Ultrahigh frequency	Cm	10–1 см
30–300 ГГц	Extremely high frequency	Mm	10–1 мм
300–3000 ГГц	Hyper high frequency	Decimillimeter	1–0.1 мм

Range radio waves



How apply radio waves

- radio waves are emitted via an antenna
- the transmission of long-wave broadcasting stations can be taken at a distance of several thousand kilometers
- medium wave stations are audible within a thousand kilometers.
- The energy of the short waves dramatically decreases as the distance from the transmitter.
- study of short and ultrashort waves showed that they quickly disappear when you go near the Ground. When the direction radiation upward short wave back

- with decreasing wavelength increases their damping and absorption in the atmosphere.
  on the propagation of waves shorter than 1 cm are affected by fog, rain, clouds, strongly limiting the communication range.

Wave of the radio spectrum have different spreading properties, and every part of this range is used where it can best be used to his advantage.