I. WAVES

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I.1. Introduction

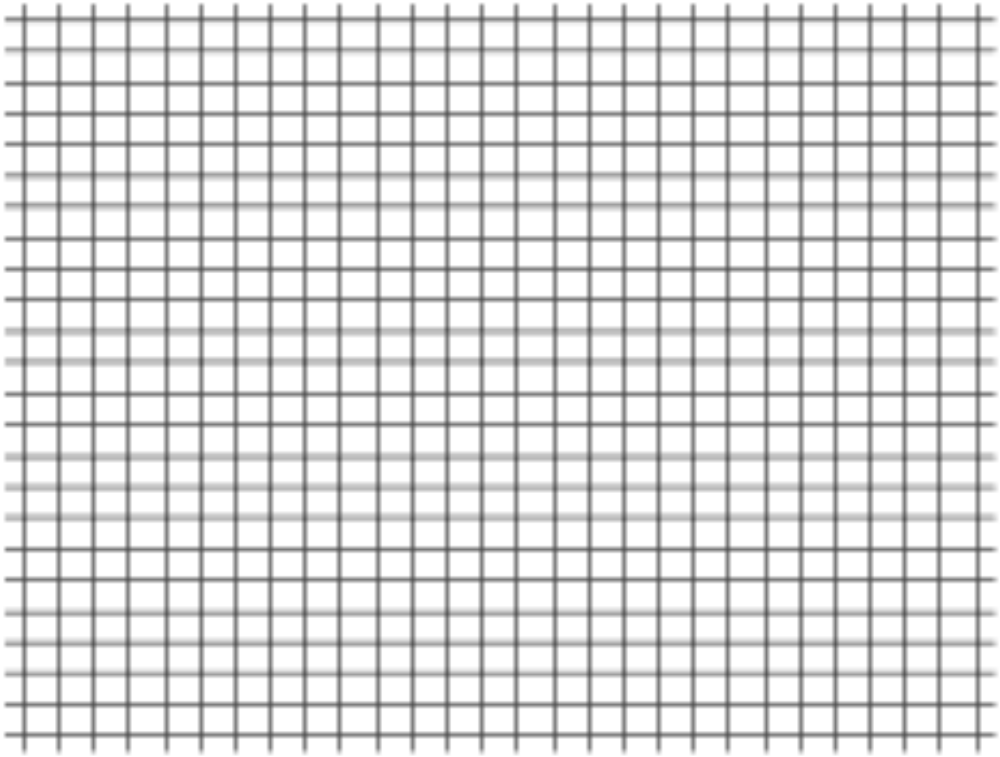
I.2. General properties of Waves

I.3. Different type of ocean waves

- I.3.1 Surface Gravity Waves
- I.3.2 Internal Waves
- I.3.3 Acoustic Waves

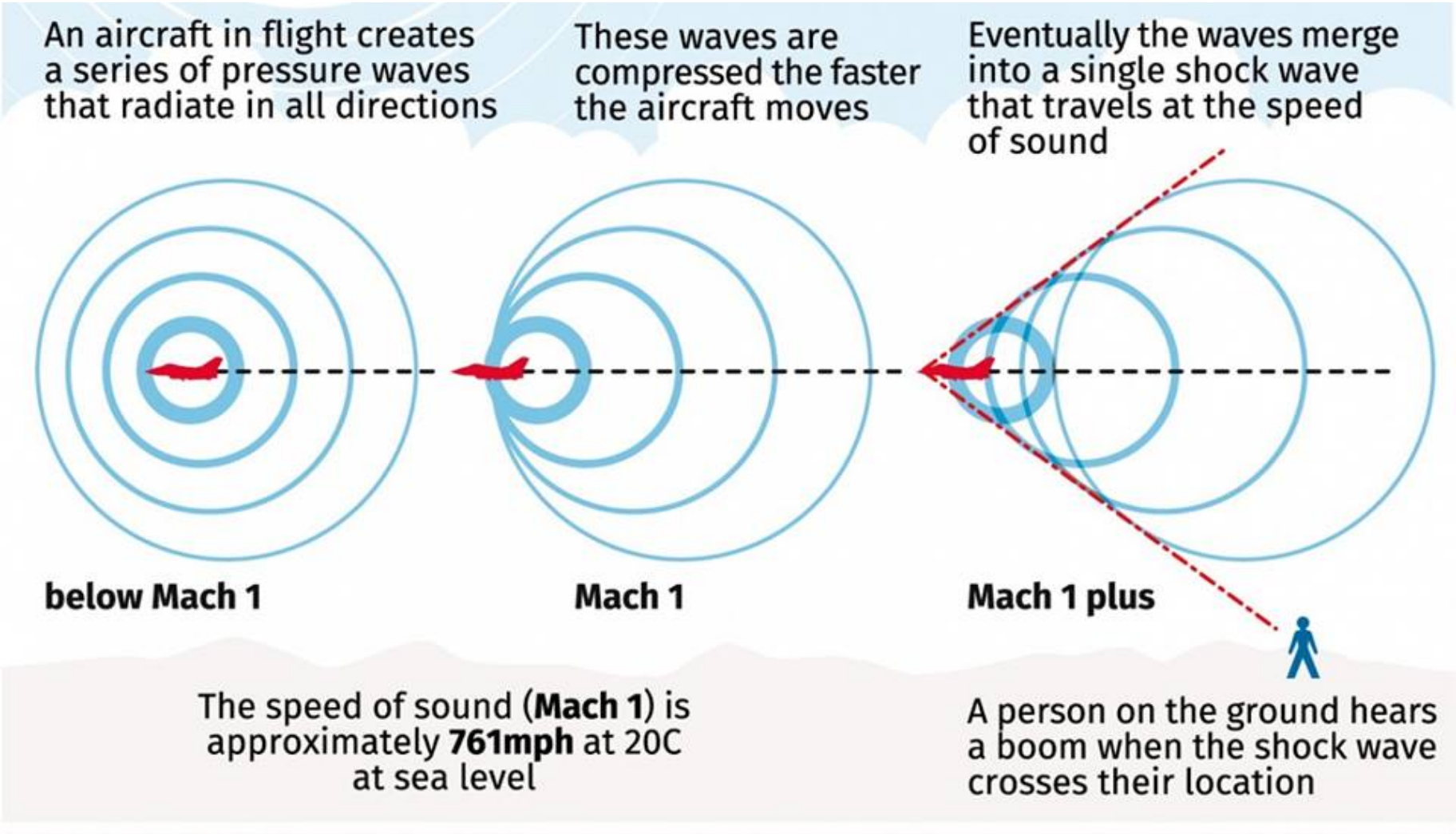
I.4. Ray Theory

Longitudinal waves:



Sonic Boom

Sonic Boom


An aircraft in flight creates a series of pressure waves that radiate in all directions
These waves are compressed the faster the aircraft moves
Eventually the waves merge into a single shock wave that travels at the speed of sound
below Mach 1
Mach 1
Mach 1 plus
The speed of sound (Mach 1) is approximately 761mph at 20C at sea level
A person on the ground hears a boom when the shock wave crosses their location

Sonic Boom