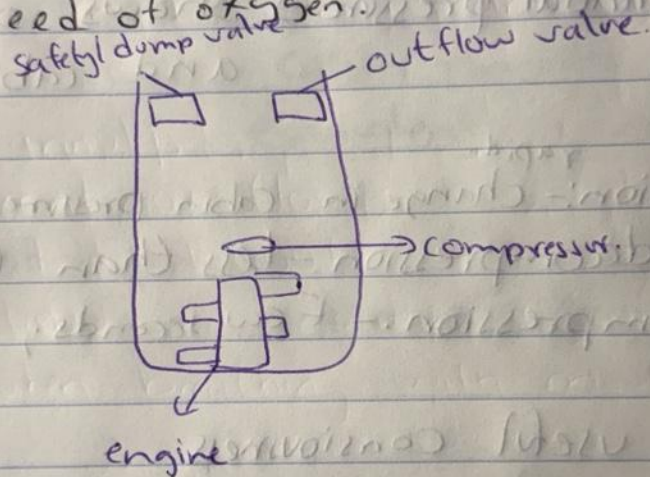


▷ Pressurized aircraft.

▷ Why?

- higher altitude (more climb to star routes)
- more speed, more efficient
- avoid weathers.
- avoid need of oxygen.



▷ Compressor - takes bleed air to pressurize the cabin.

▷ Outflow valve - for circulation

- maintains pressure (regulator).

▷ Safety dump - dumps ^{excess} pressure outside.

Prevents over pressure protection;

▷ Bleed air means hot, compressed air taken from the engine, instead of combustion.

Instruments - connected with outflow valve.

Cabin rate of climb $\rightarrow$ works like a VSI for cabin pressure.

Cabin/differential pressure $\rightarrow$ Shows outside pressure and cabin altitude pressure.

Decompression: - ^{rapid.} change in cabin pressure.

1. Explosive decompression - less than 0.5 seconds, blast, fog.
2. Rapid decompression - Few seconds, fog,

Time of useful consciousness
 $\rightarrow$ chart.

▷ Aircraft altitude $\rightarrow$ MSL of aircraft

▷ Ambient pressure $\rightarrow$ pressure surrounding aircraft

▷ Ambient temperature $\rightarrow$ temperature surrounding aircraft.

▷ Cabin altitude $\rightarrow$ cabin pressure in terms of equivalent altitude above sea level.

▷ Differential pressure $\rightarrow$ difference between cabin pressure & atmospheric pressure.