

# Infrastructure

What is Infrastructure?

- A system or systems built to move and deliver things over a large area

What does infrastructure move and deliver?

- Water
- Electricity
- Communication and navigational signals (telephone, radio, TV, GPS...)
- People
- Fuel
- Waste
- Education
- Cargo
- Emergency Services

What does infrastructure consist of?

- Pipes
- Wires
- Towers
- Vehicles
- Roads
- Sidewalks
- Stations (of all types)
- Tracks
- Runways

Aviation infrastructure includes airports, the Air Traffic Control system, a network of fuel delivery systems, and multiple navigational systems.

The most prevalent of these navigational systems is the network of VORs (VHF Omni Directional Radio Range). VOR is a type of short-range radio navigation system for aircraft, enabling aircraft with a receiving unit to determine their position and stay on course by receiving radio signals transmitted by a network of fixed ground radio beacons. (definition courtesy of Wikipedia)

These ground radio beacons transmit signals that allow a pilot, using the equipment in his or her aircraft, to know on which radial of the VOR the aircraft lies at that precise moment. Using position information from multiple VORs or from a single VOR that also has DME (Distance Measuring Equipment), the pilot can pinpoint the aircraft's location.

ADDITIONAL RESOURCES:

What's That Infrastructure? (<https://www.youtube.com/watch?v=oA2-80IY5rE>)

What's That Infrastructure? Episode 2 (<https://www.youtube.com/watch?v=Y-uvoaTQH5U>)

Runways to Riches: The Importance of Aviation Infrastructure to the Global Economy (<https://www.youtube.com/watch?v=rV0rvs43Cqw>)

Aviation Infrastructure for the 21st Century NASA Aeronautics Design (<https://www.youtube.com/watch?v=koZnGn225Tw>)