



# Drones & Planes

Eyes in the Sky

# Planes

- Not the first form of flight
- Pioneered by Wright brothers in early 20<sup>th</sup> century
- First heavier than air powered flight in 1903, December 17<sup>th</sup>
- Wilbur Wright died of Typhoid
- Orville died of Cardiac Arrest



# Helicopters

- Rotorcraft, not fixed-wing
- First practical helicopter made in 1939 by Igor Sikorsky
- Consists of tail rotor, and main rotor, and sometimes multiply rotors more



## Forces in an aircraft

- There are 3 main forces present in an aircraft
  - Lift; the force that causes the aircraft to lift upwards
  - Drag; the resistance force that causes friction
  - And Thrust; the propelling force that drives the aircraft forwards



# Motion of an Aircraft

- There are 3 main ways an aircraft can move:
  - Pitch; the incline angle
  - Roll; the “rolling” angle
  - And Yaw; the twisting angle
- All motion is a combination of these three motions

