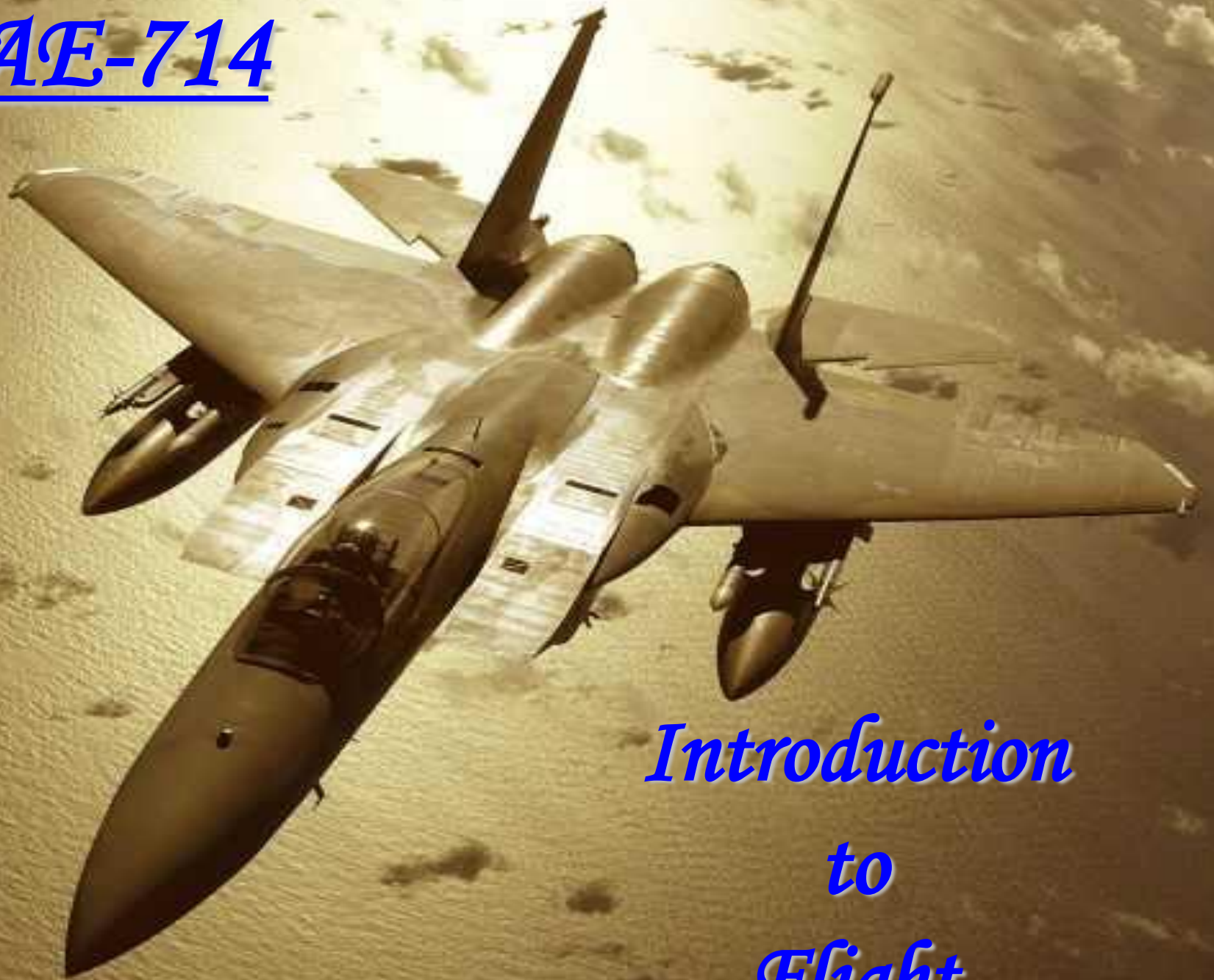


AE-714

*Introduction
to
Flight*



Course contents.

1. Introduction
 - 1.1 Types of Aircraft
 - 1.2 Parts of an Aircraft

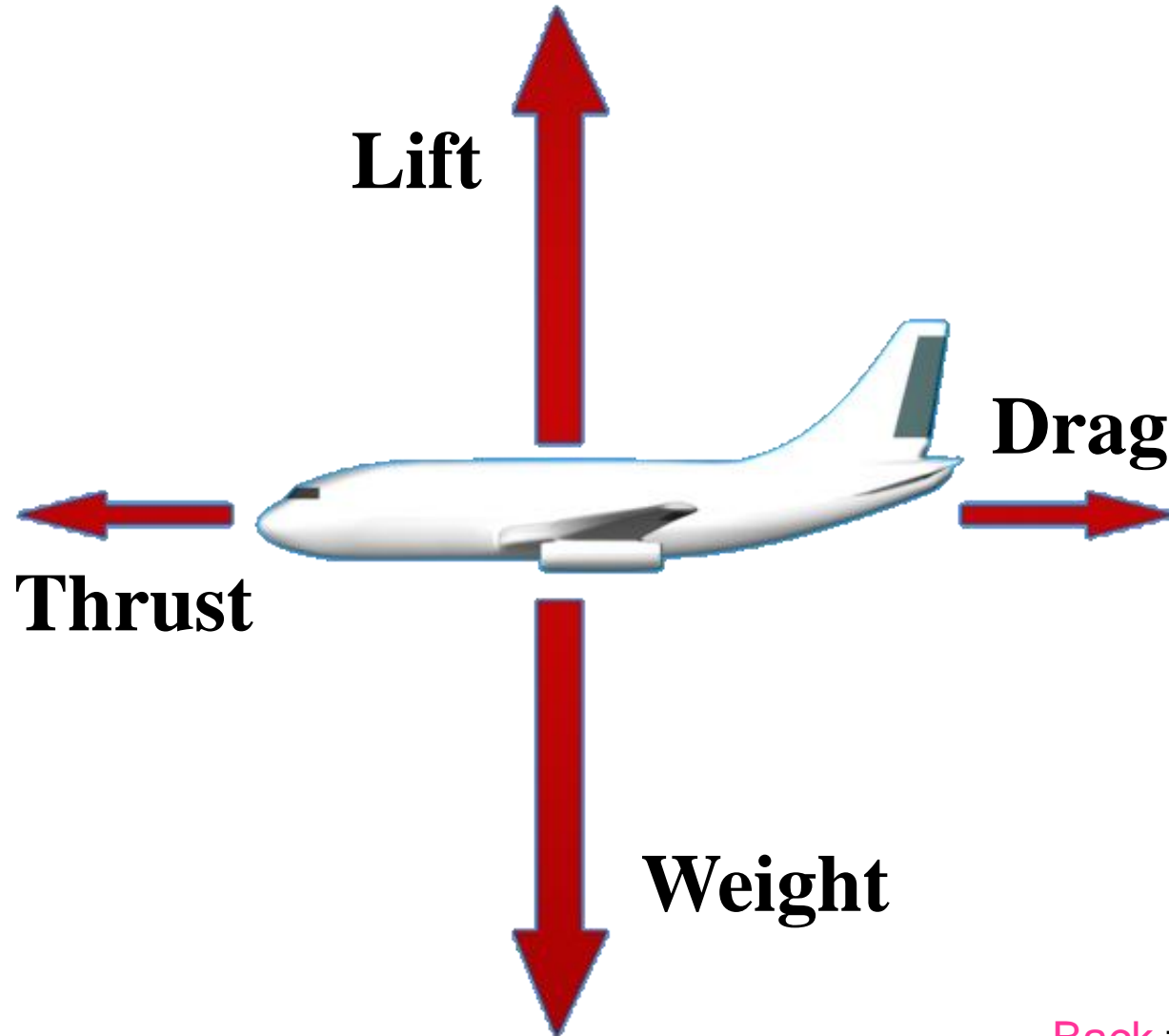
What did Wright brothers achieve ?



First sustained controlled flight with heavier than air aircraft

Next

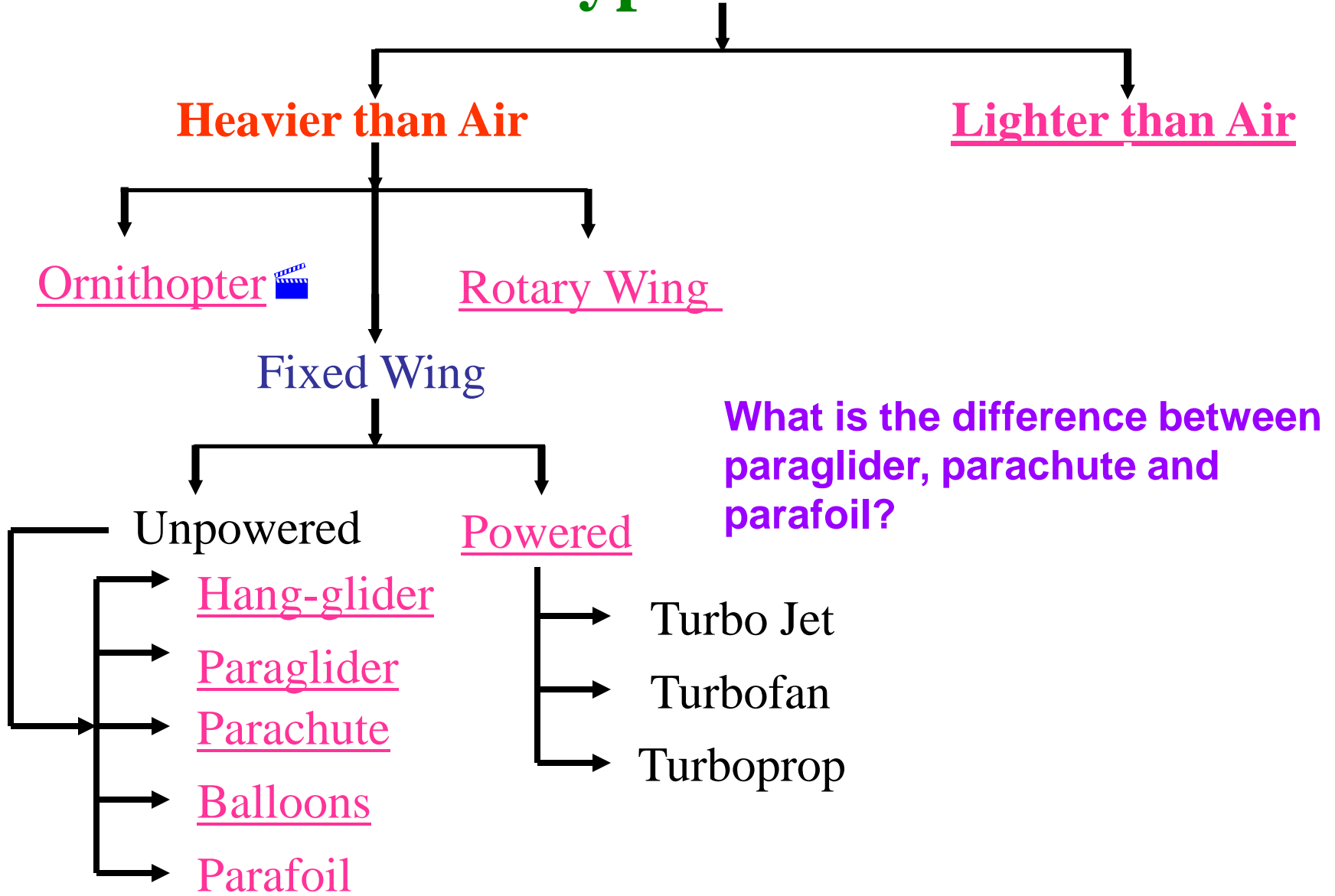
Forces on an aircraft in flight



[Back](#) to
contents

1.1 Types of Aircraft

Types of Aircraft




Next

Manned and Unmanned

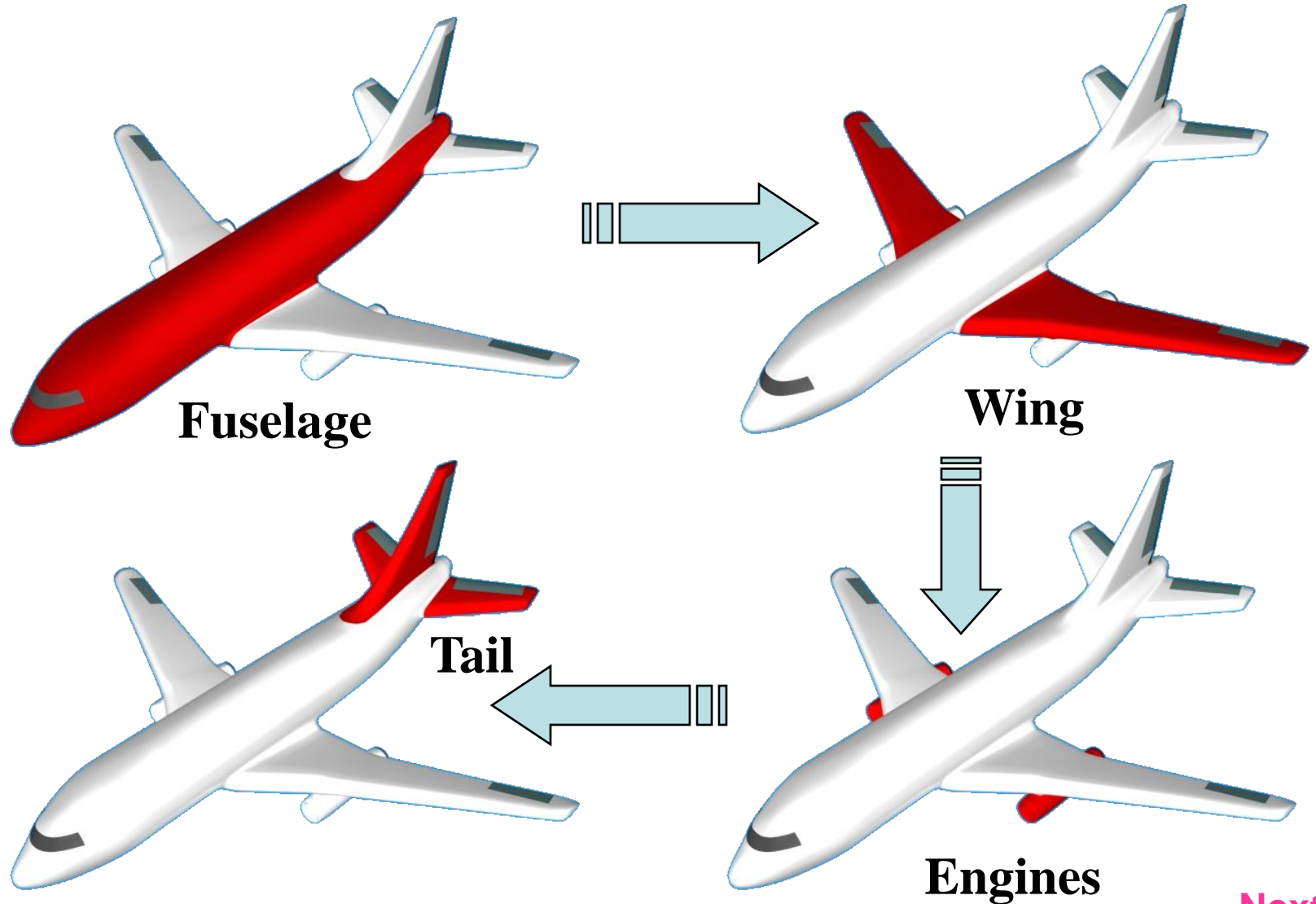
- Helicopters
- Hovercraft (principle)

UAV (Unmanned Aerial Vehicle)

- Global Hawk 
- Predator

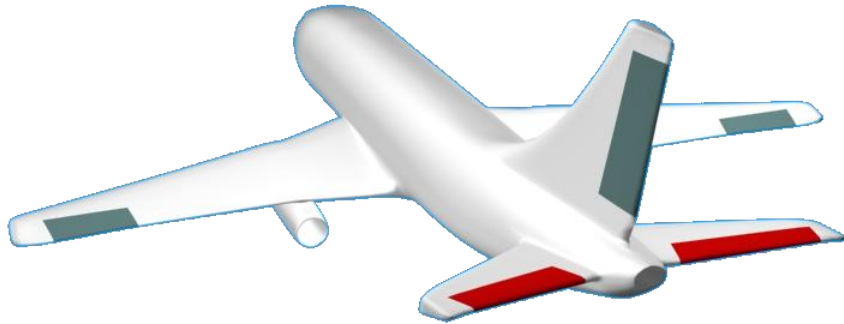
1.2 *Parts of an Aircraft*

Parts of an Aircraft

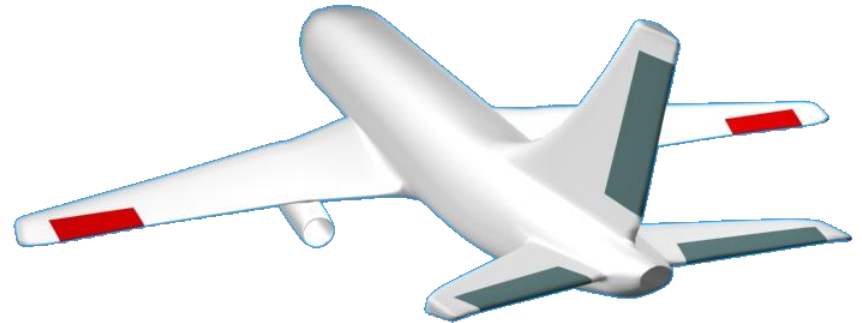


Next

Control Surfaces



Elevators



Ailerons

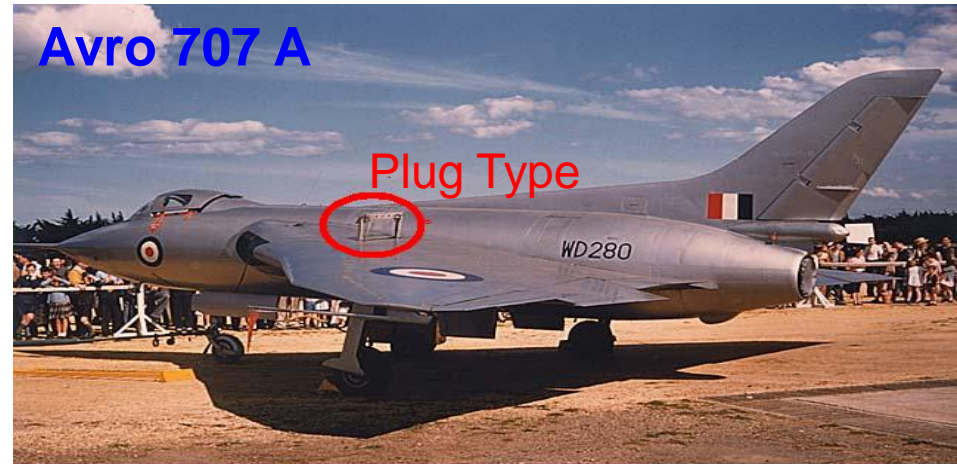


Rudder

[Next](#)

Special Components

- **Airbrake**
- Canards
- LEX
- Pylon
- Spoilers
- Nacelle
- Dorsal Fin
- Ventral Fin
- Canopy
- Drag Chute



Airbrakes are used for fast deceleration from high speed ,by increasing the drag.

Next

Special Components

- Airbrake
- **Canards**
- LEX
- Pylon
- Spoilers
- Nacelle
- Dorsal Fin
- Ventral Fin
- Canopy
- Drag Chute



DaveLind

Next

It trims the rearward shift of the aerodynamic center at supersonic speeds and the strong nose-down moments by producing some lift.

Special Components

- Airbrakes
- Canards
- **LEX**
- Pylon
- Spoilers
- Nacelle
- Dorsal Fin
- Ventral Fin
- Canopy
- Drag Chute



F-18

Generates additional vortex lift, enabling the wing to reach higher angle of attack

Next

Special Components

- Airbrakes
- Canards
- LEX
- **Pylon**
- Spoilers
- Nacelle
- Dorsal Fin
- Ventral Fin
- Canopy
- Drag Chute



X-43

These are used for placing attachments to the wing like missiles etc.

Next

Special Components

- Airbrakes
- Canards
- LEX
- Pylon
- **Spoilers**
- Nacelle
- Dorsal Fin
- Ventral Fin
- Canopy
- Drag Chute

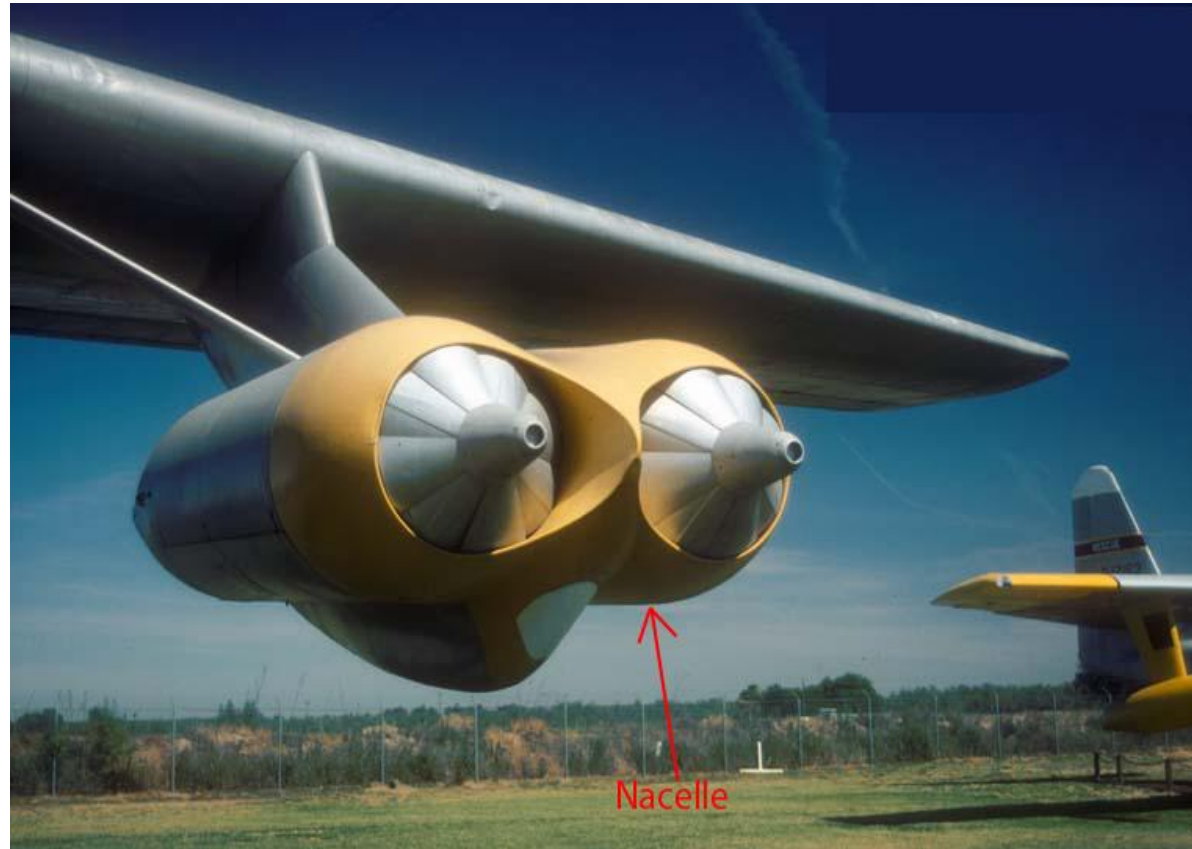


[click here](#)

[Next](#)

Special Components

- Airbrakes
- Canard
- LEX
- Pylon
- Spoilers
- **Nacelle**
- Dorsal Fin
- Ventral Fin
- Canopy
- Drag Chute



It is the aerodynamic covering over any component
(such as the engines here).

Next

Special Components

- Airbrakes
- Canards
- LEX
- Pylon
- Spoilers
- Nacelle
- **Dorsal Fin**
- Ventral Fin
- Canopy
- Drag Chute



F-16 Falcon And P-51 Mustang

Its main purpose is to stabilize the aircraft against rolling and assist in sudden turns.

Next

Special Components

- Airbrakes
- Canards
- LEX
- Pylon
- Spoilers
- Nacelle
- Dorsal Fin
- **Ventral Fin**
- Canopy
- Drag Chute



Sea Harrier

Special Components

- Airbrakes
- Canards
- LEX
- Pylon
- Spoilers
- Nacelle
- Dorsal Fin
- Ventral Fin
- **Canopy**
- Drag Chute



Sea Harrier

Overhead covering for prevention from extreme conditions at high altitude without compensating visibility.

Special Components

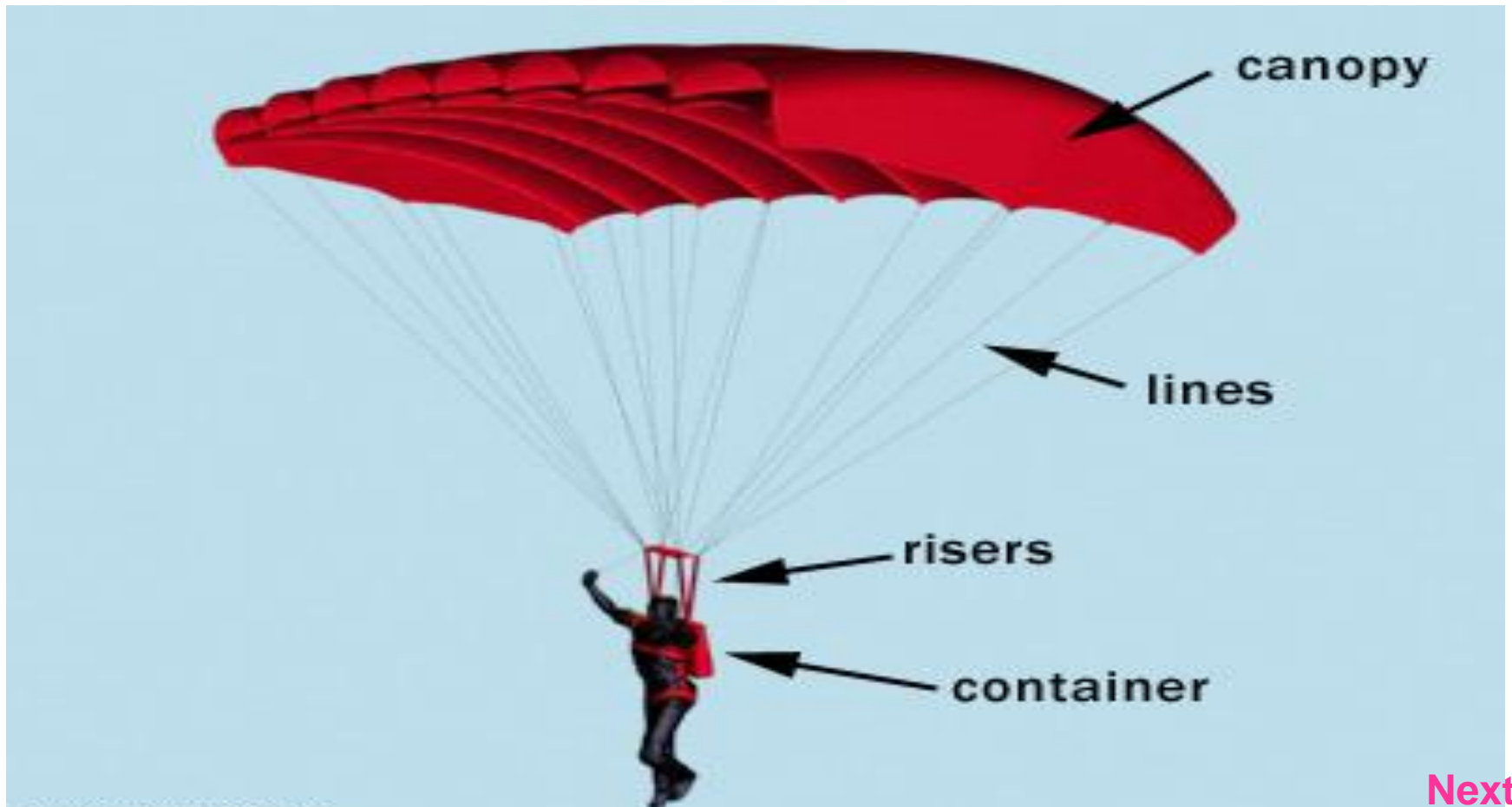
- Airbrakes
- Canards
- LEX
- Pylon
- Spoilers
- Nacelle
- Dorsal Fin
- Ventral Fin
- Canopy
- **Drag Chute**



F-117

To reduce the landing run of an aircraft by increasing drag.

Parachute



Next

Go back to types of aircraft

Kamav ka-26(coaxial)



[Back](#)



[Back](#)



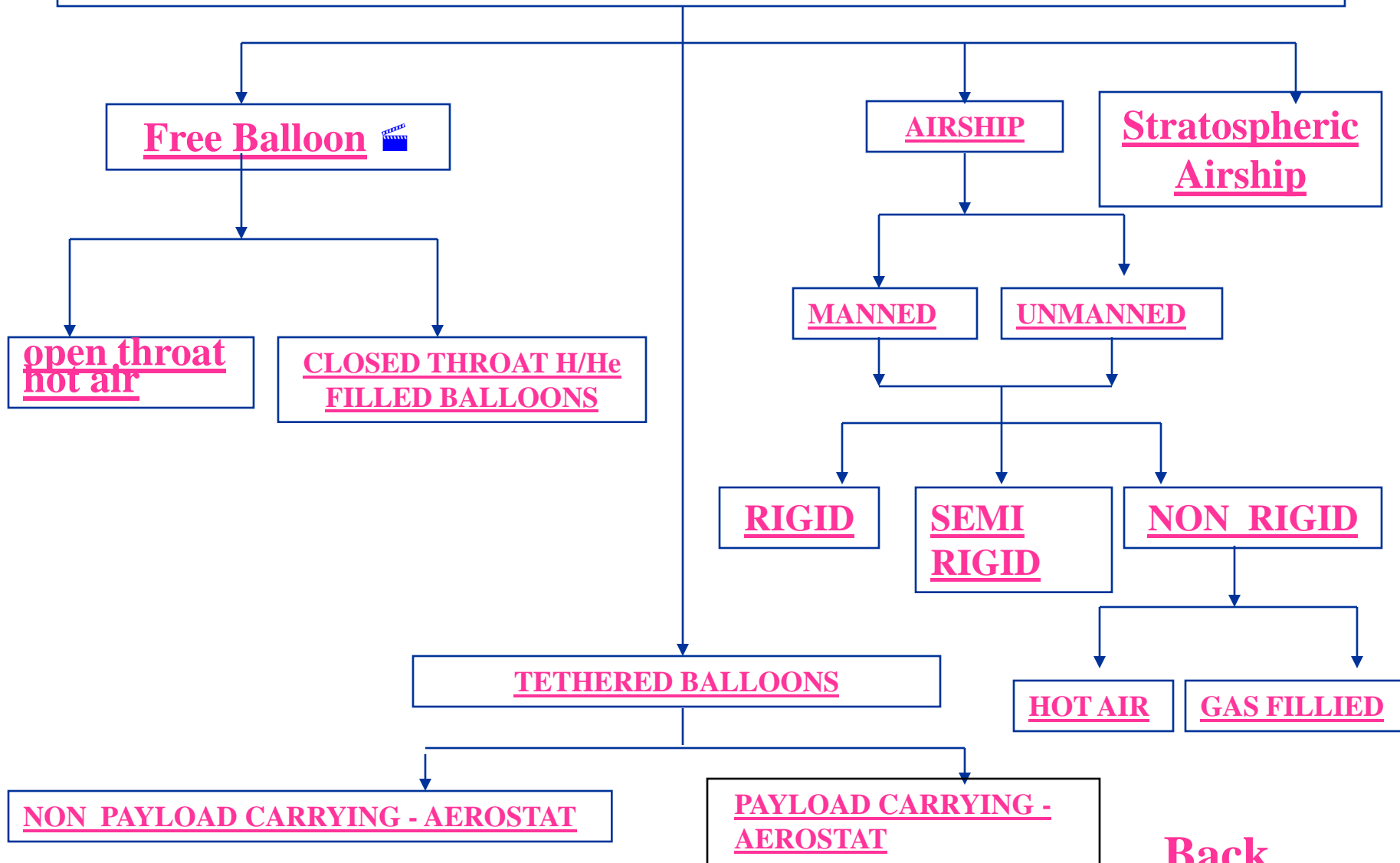
[Back](#)



SU-27

[Back](#)

LTA VEHICLES (BALLOONS)



Back



[Back](#)



[Back](#)



[Back](#)



[Back](#)

The Sea - King



[Back](#)