

ESA readies for IXV space plane launch

The European Space Agency is to launch a robotic space plane that could pave the way towards the creation of a reusable cargo vehicle capable of surviving the blistering re-entry into Earth's atmosphere

1 Liftoff: IXV launched atop Vega rocket from Kourou, French Guiana

2 Separation: IXV released at altitude of 320km

3 Peak altitude: IXV continues to climb at 420km before beginning re-entry

4 Re-entry: IXV re-enters atmosphere at 7.5km/s to simulate velocity of returning orbital spacecraft

IXV (INTERMEDIATE EXPERIMENTAL VEHICLE)

Length: 5 metres
Weight: 2,000kg

Four-stage Vega rocket

Ceramic heatshield

Flaps and thrusters control descent

Tracking stations

Kourou

5 Splashdown: Parachutes deployed to slow descent for safe splashdown in Pacific Ocean

6 Recovery: Four large balloons keep IXV afloat until arrival of recovery vessel

Mission duration:
100 minutes

