

Boeing's solar-powered drone

Odysseus, a massive solar-powered unmanned aircraft designed to fly continuously for up to three months at high altitudes, will be used to perform climate and atmospheric research

Solar cells: Thin-film cells coat upper wing surface, fuselage sides and vertical tails

Trusses: Carbon-fibre structure for wing spars and fuselages, for light weight and durability

Tails: All-moving horizontal and vertical tails provide pitch and yaw control

Propellers: Six variable-pitch, two blade propellers driven by electric motors

Electric power: Lithium-polymer batteries, avionics and payloads housed in three fuselages to distribute point loads along flexible wing

Odysseus will fly above 20,000m, solar-powered by day and on battery power at night, carrying payload of over 25kg

Odysseus designed by Boeing subsidiary Aurora Flight Sciences (AFS)

Manassas, Virginia:
Plane operated remotely from AFS HQ

Puerto Rico:
First test flight planned Apr 2019

Wingspan: 74m
— longer than Boeing 777X

