UK Solar Powered Unmanned Flight Sets World Record

British defense company company QinetiQ says it has set the world record for unmanned flight with its solar-powered plane Zephyr, which flew for 82 hours 37 minutes, beating the current record of 30 hours 24 minutes set by American plane Global Hawk in 2001.
Launched by hand, Zephyr is an ultra-lightweight, carbon-fibre, solar powered vehicle and is in industry parlance known as a high-altitude long-endurance (HALE) Unmanned Aerial Vehicle (UAV).
By day it flies on power generated by amorphous silicon solar arrays that cover the aircraft's wings and have the thickness of paper sheets. At night, it is powered by rechargeable lithium-sulphur batteries, which are recharged during the day using solar power.
The flight took place at the U.S Army's Yuma Proving Ground in Arizona and took place between July 28 and July 31 in the desert where temperatures can go up to 113°F. Zephyr was flown on autopilot and via satellite communications to a maximum altitude of more than 60,000 feet, said QinetiQ.
Zephyr's previous longest flight was for 54 hours last year.
Potential applications for it include earth observation and use as a communications relay in defense and civil areas, says QinetiQ.
via BBC News

QinetiQ says it has broken unmanned flight record

By RAPHAEL G. SATTER – 1 day ago

LONDON (AP) — An ultra-lightweight plane built from carbon fiber and powered using paper-thin solar panels has broken the world record for longest-lasting unmanned flight, its manufacturer claimed Sunday.

QinetiQ Group PLC said its propeller-driven "Zephyr" aircraft flew for 83 hours and 37 minutes, more than doubling the official world record set by Northrop Grumman's "Global Hawk" in 2001.

The flight also went longer than a previous excursion by the Zephyr, which Qinetiq claims clocked up 54 hours of continuous flight last year.

However both the Zephyr's reported flight times are likely to remain unofficial because they did not meet criteria laid down by the world's air sports federation, the body responsible for measuring and verifying air and space records, QinetiQ spokesman Douglas Millard said.

"We were concentrating more on the flight than the record," he said.

No one at the Lausanne, Switzerland-based federation could immediately be reached for comment.

The 67 pound- (30 kilogram-) plane was launched by hand on July 28 in the Arizona desert in the United States and flown by autopilot and via satellite to an altitude of more **60,000 feet** (18,000 meters), QinetiQ said.

Drawing on the power of the sun during the day, the plane stayed aloft at night using rechargeable lithium-sulphur batteries. Its more than three-day flight began on July 28 and was witnessed by U.S. and British defense officials, the company said.

QinetiQ said the Zephyr, which is funded by a host of U.S. and British military agencies, had potential in the fields of reconnaissance and communications.