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FRP Composites for Unmanned Aircraft Vehicles
Advancements in Flying - 1903 to 2009

At the recent grand opening of the new TechTown campus in Dayton, OH, an R & D incubator for advanced materials and sensors technology, the highlight for the crowd was an amazing flight demonstration of a Delta Wing Unmanned Aircraft Vehicle (UAV).

The UAV flown in the grand opening was one of the earlier prototypes created by Cooperative Engineering Services, Inc. (CESI). This model had a bright red and white skin - for maximum visibility and tracking by the crowd. The UAV silently made multiple flights over downtown Dayton, and the surrounding area; all the while sending back video from the onboard high resolution camera. As you will see from the flight photographs at one point the UAV was even chased by a Osprey.

On display by CESI for all the local, State and Federal dignitaries at the grand opening was the next generation UAV, which had been partnered with FiberSystems. This latest version of the UAV utilizes all carbon fiber reinforced composite radar invisible stealth technology and construction for the UAV body.

These Delta Wing UAVs are powered by state-of-the-art advanced battery technology that provides flight times up to 1-1/2 hours, cruising speeds of over 20 mph, and maximum speeds of over 80 mph. Through directional control into the wind the UAV can hover over a single location. The light weight composite UAV bodies provide the ability to carry heavy camera payloads - sending back high resolution photos and video through an advanced automatic tracking antennae; while still maintaining constant communication with the ground.

This "spy" UAV can be operated from the ground using radio frequency controls. Or the UAV can be programmed to automatically fly, using programmed GPS technology. Targets of interest can be programmed into the flight, with an automatic return to the recovery point.

The week following the TechTown flight, the FiberSystems manufactured stealth UAV was flawlessly flown for crowds in the thousands - over three days at a radio frequency controlled unmanned aircraft "fly-in" at Wright Patterson Air Force Base. The all composites version proved its' ability to perform complex maneuvers. The UAV also demonstrated its' inherent toughness by landing on grass covered

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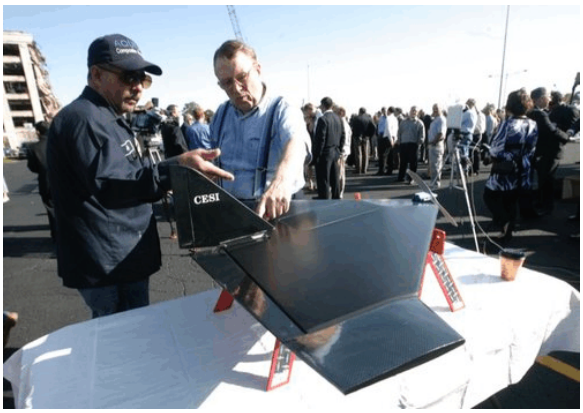
rough terrain. The carbon reinforced composite UAV construction convincingly showed its' ability to handle heavy payloads, silent flight, and return - all without damage, or even a scratch.

In partnership with CESI, FiberSystems demonstrated its' unique capabilities of manufacturing all the tooling, molds, and fixtures in-house - and then producing these ultra light weight UAVs.

Wilbur and Orville Wright would have marveled at the unimagined progress that has been made in aviation. And, the undreamed of, in 1903, of the Delta Wing Stealth UAV Aircraft representing 2009 aircraft technology.



We share this case history with you to demonstrate how FiberSystems can support your customers and clients for engineered innovations - be they corrosion resistant equipment, Delta Wing Stealth UAVs; or your clients FRP composite challenges.

It Is Innovation That Sets Us Apart!