Viator Series

Major Features

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The Viator Series UAS

The Viator Series UAS is a comprehensive system incorporating our airframe, multiple sensors, and command and control components into one ready-to-deploy package.

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Autonomous Flight

The Viator Series of UAS’s operates autonomously using GPS under the control of our own command and control system which is comprehensive and feature rich.

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Mission Flexibility

The Viator Series of UAS’s operates in a number of environments and missions.

The UAS can operate from different size commercial and military ships, and has sophisticated launch and return controls. The UAS can also take off and land on any unimproved surface without damaging the airframe.

The Viator Series offers a rich selection of ISR functions and capabilities together with a powerful command and control system which can manage up to four UAS’s flying together on a single mission.

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Major Features

Advanced Carbon Composite Monocoque

All Viator Series airframes use a construction technique and process known as Advanced Carbon Composite Monocoque, whereby the outer skin is the actual airframe.

The entire airframe is constructed from a single mold.

This construction technique and process dramatically increases payload capacity and the ratio of payload weight to airframe by being able to utilise the entire volume of the airframe for multiple payloads and fuel. Our UAS is able to achieve up to a three to one ratio of payload to the empty weight of the airframe whereas most other UAS’s empty weight is two or three times their payload weight.

This construction technique significantly increases the number and types of payloads on each mission and the capability to carry more fuel. It offers payloads and fuel of up to 2,668 pounds and significantly increases flight endurance to 1,344 miles per mission.

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Scalability

The Viator Series is scalable with a wing span from three feet (3’) to forty feet (40’).

Each scaled aircraft is designed to utilize the identical, scalable design, and construction, no matter the size of the airframe.

The Viator Series offers twelve standard models, Viator 1 to 12.

This scalability means the customer from day one has the capability to build a comprehensive line of UAS’s, which will meet military, civil, and civilian requirements, without the cost of building or buying specific UAS’s for each and every type of application or mission.

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Major Features

Blended Wing

The Viator Series airframes have no separate body or cylindrical fuselage.

The body consists of a strong, lightweight, air foil shaped fuselage, integrated smoothly into the wings.

This design, called the “Blended Body” design, has many advantages over traditional cylindrical fuselage and tail designs.

The major advantages include: lower power consumption; ability to accommodate larger payload volumes and heavier payload weights; lower minimum stall speeds for more effective and efficient loitering, take-off from and landing on unimproved ground or runways, and lower repair and maintenance costs.

The “Viator Series” UAS

Research, Development and Manufacturing Costs

The Viator Series has the lowest cost of Research, Development and Manufacturing of any large portfolio of UAS’s.

The entire Viator Series of twelve airframes are scaled from a single fixed design.

The airframes are all-composite and each model is constructed from a single mold.

The range of airframes models meets most military, civil and civilian mission and operational requirements without any changes to the design.

The airframes can carry a large number of different ISR payloads without changes to the design.

Most of the same manufacturing assets and human skill sets can be used across the entire range of models.

Shaping of the air foil and use of different material in the composite weave, to satisfy special mission requirements, can be done quickly and cost effectively without changing the design.

All of these factors minimize materially the cost of R&D and manufacturing and contribute to the Viator being the lowest cost per airframe across the line in the market.

The “Viator Series” UAS

ISR Payload, Command & Control and Propulsion Systems Costs

The Viator Series has the lowest overall cost of employable payloads, Command & Control , and Propulsion Systems.

The sensors, cameras and propulsion systems are all modular and can be inserted in the airframe through a number of all purpose hatches or on the top or bottom of the airframe.

The entire Viator Series can accommodate almost all types of off the shelf sensors, cameras, and special payloads in its hatches without changes to the airframe.

The Viator Series can accommodate our own C&C, which has many off the shelf components, or a third party C &C, and without changes to the airframe.

The Viator Series accommodates modular electric, petrol, and heavy oil propeller propulsion systems which can be slotted in the rear of the UAS without any changes to the airframe.

This degree of modularity, flexibility, and use of our own C&C or off the shelf payloads and propulsion systems, contributes materially to the overall low cost of the UAS.

The “Viator Series” UAS

Training, Support, Operations, Repair, Maintenance and Transport Costs

The Viator Series delivers the lowest overall operational and support costs.

Training, including flight, command & control, autonomous and LOL operations, ISR operation and propulsion systems is the same across Viator’s twelve models, significantly minimizing time, costs and personnel numbers, while maximizing highly skilled staff in a growing trend toward all-composite UAS’s.

The operational simplicity of the airframe, plug and play payloads and C&C requires fewer in-theatre and out-of-theatre operations and support staff, contributing to lower costs for both.

The blended flying wing structure dramatically minimizes damage to normal fuselage, wings and tail structures of typical airframes. The all-composite construction offers an exceptionally strong airframe with minimal damage characteristics. The all composite blended wing construction contributes to very low repair and maintenance costs.

The Advanced Carbon Composite Monocoque, whereby the outer skin is the actual airframe, creates an exceptionally large internal volume accommodating greater payloads and fuel capacity in a very compact airframe. As importantly, the compact airframe can be transported to theatre less expensively.