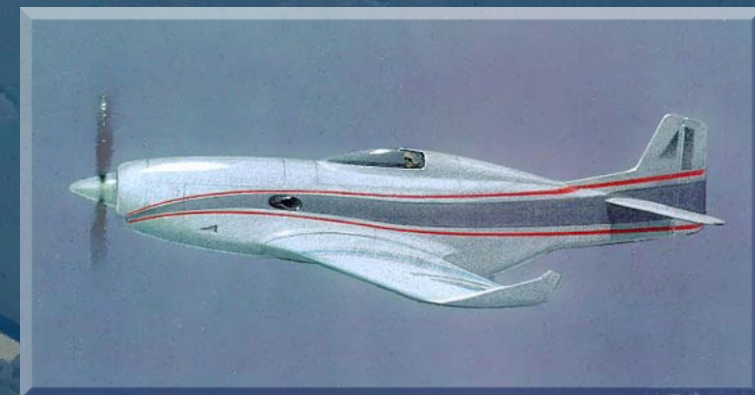


Proposal for a Consortium to Manufacture Carbon Fiber P-51G Aircraft

P-51G MUSTANG



Consortium

An association of two or more individuals, organizations or groups with the objective of participating in a common activity or pooling their resources for a common goal



XP-51G with RR14SM

The culmination of all of North American Aviation's P-51 efforts. The ultimate evolution of the Mustang.

- ***Fastest Vmax: 498 mph***
- ***Climb to 20,000 ft.: 3 minutes, 51 seconds***
- ***Max. Altitude: 46,000 ft.***
- ***Weights: 5,749 empty
7,858 gross***
- ***Flown with Dowty Rotol 5-bladed propeller***
- ***1st with hydraulic canopy and seat***
- ***1st aircraft to be totally mathematically designed***
- ***Lighter landing gear with smaller wheels***
- ***Thinner wing with smooth leading edge***

Cameron Aircraft Capabilities

- *Can ship 2 kit sets/month*
- *12 major airframe components*
- *3 Component Groups*
 - ▶ *Wing*
 - ▶ *Fuselage*
 - ▶ *Empennage*



Airframe Tooling



Wing Molds

High-Temp Carbon Fiber, Autoclave Capable



Fuselage Molds

High-Temp Carbon Fiber, Autoclave Capable



Empennage Molds

High-Temp Carbon Fiber, Autoclave Capable



Spar and Longeron Molds

All Steel

Canopy Options



Racing



P-51D

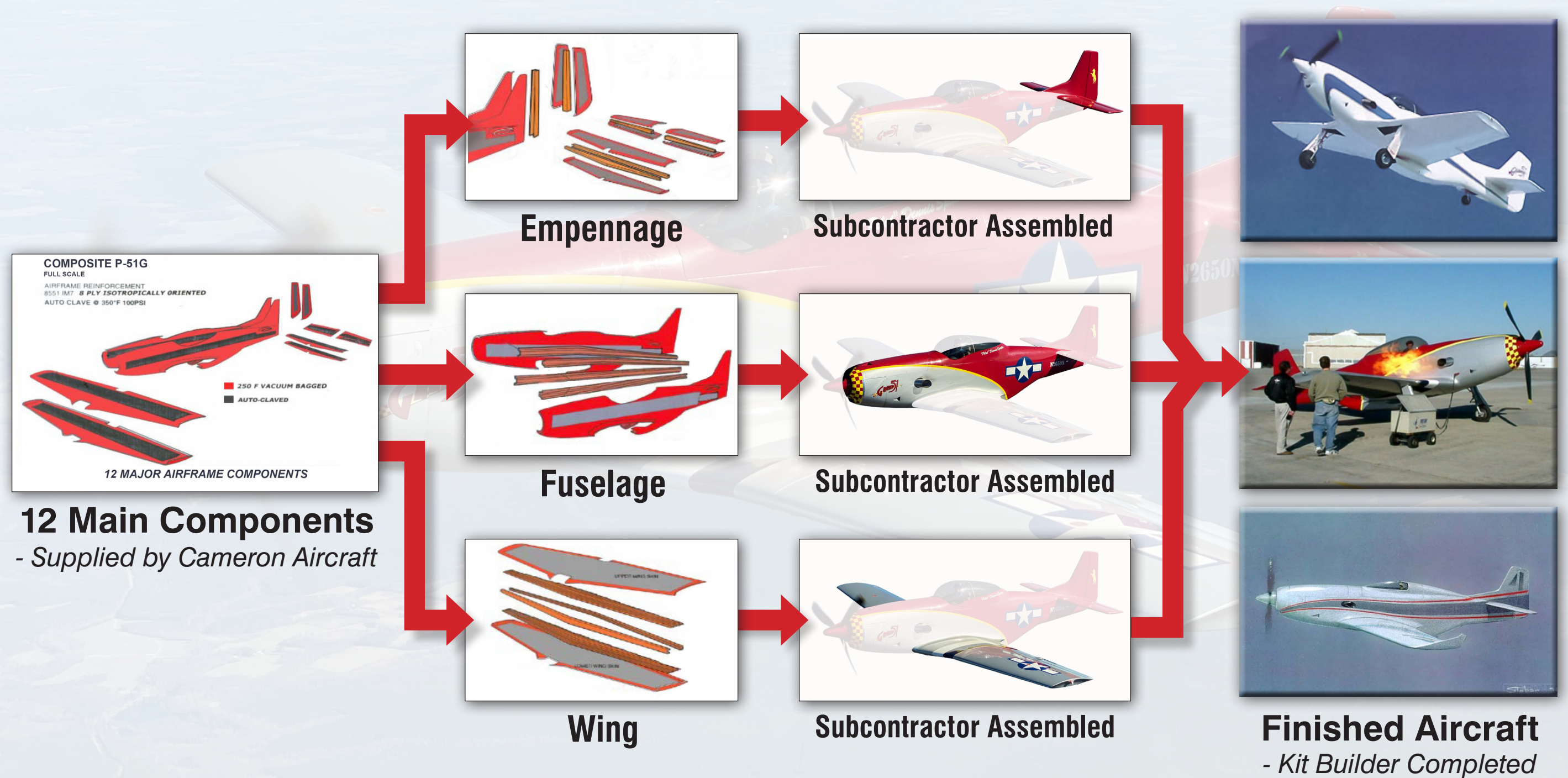


Lo-Profile Racing



Hi-Profile
(for improved rear seat visibility)

Manufacturing Workflow



Power Plant

Unlike the original metal Mustang, the advanced carbon fiber composite construction allow the Cameron Mustang to accomodate a wider variety of engines including:

- *Lycoming T53-L-701 Turboshaft (1450 shp)*
- *Pratt & Whitney PT-6 Turboshaft (all versions)*
- *Garrett Turboshaft*
- *Rolls-Royce Merlin V-12*
- *Allison V-12*

Cameron P-51G Prototype

SPECIFICATIONS

- *Wingspan:* 37 ft. 4 in./32 ft. 2 in.
- *Length:* 32 ft. 9 in.
- *Height:* 12 ft. 9 in.
- *Gear type:* Conventional, retractable
- *Seats:* 2 (+ large baggage area)

WEIGHTS and LOADING

- *Max. gross weight:* 8000 lb.
- *Empty weight:* 4000 lb.
- *Useful load:* N/A
- *Wing loading (prototype) +/-* 11-12G
- *Fuel capacity:* 250 gal.

ENGINE

- 1450-SHP Lycoming T53-L-701 A turbine

PROPELLER

- *Hamilton Standard 10-foot, 3-blade, full-feathering, full-reversible*

Cameron Aircraft

Cameron Aircraft component fabrication facilities are located in Coeur d'Alene, Idaho.



Program Overview

The Cameron P-51G is not just a concept, but consists of all major airframe tooling and a flying prototype.

- *Airframe molds completed*
- *Equipped fabrication facility in place*
- *Canopy*
- *Variety of kit components currently completed*

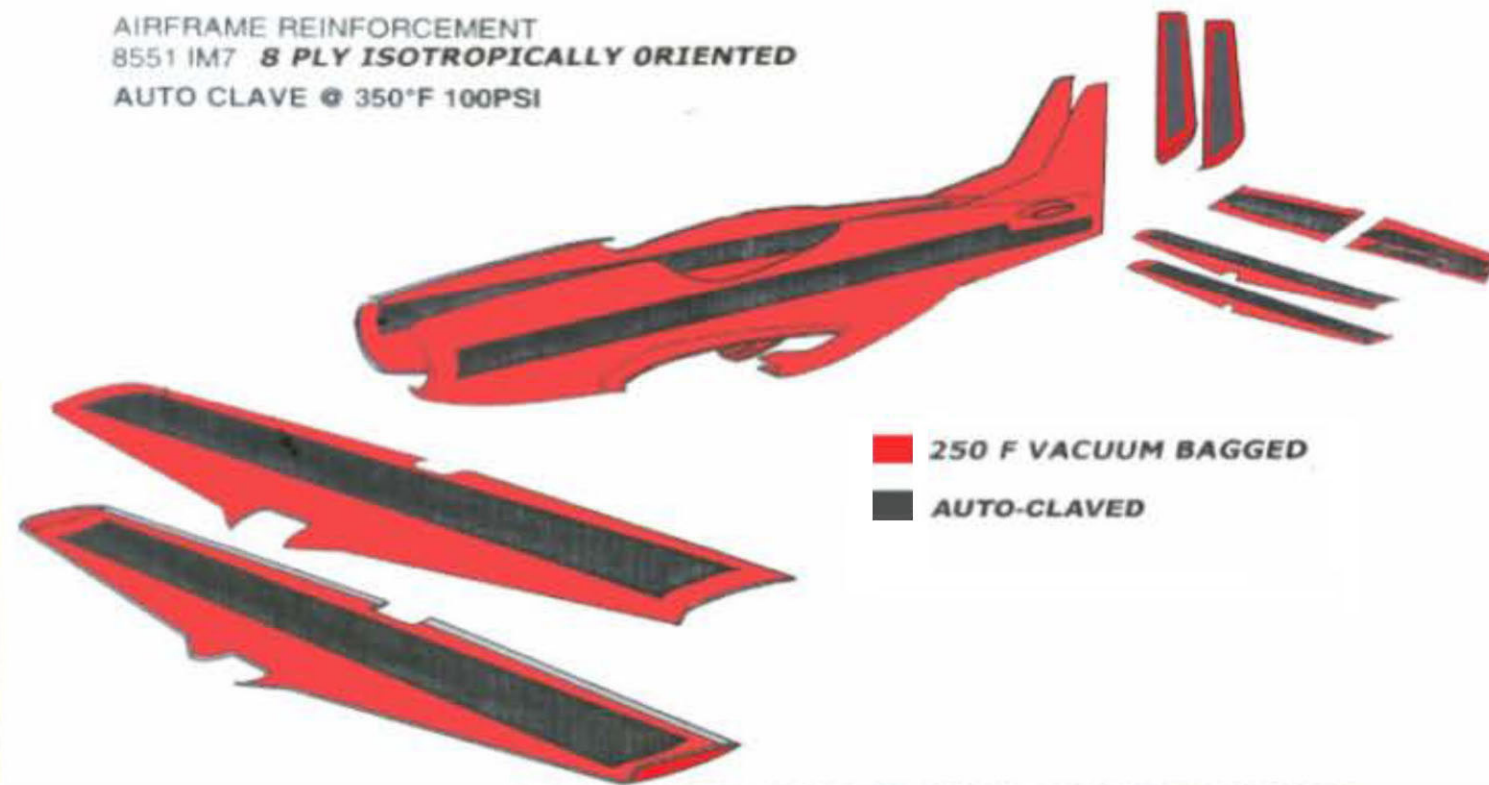


Program Overview (Cont'd)

COMPOSITE P-51G

FULL SCALE

AIRFRAME REINFORCEMENT
8551 IM7 8 PLY ISOTROPICALLY ORIENTED
AUTO CLAVE @ 350°F 100PSI



12 MAJOR AIRFRAME COMPONENTS

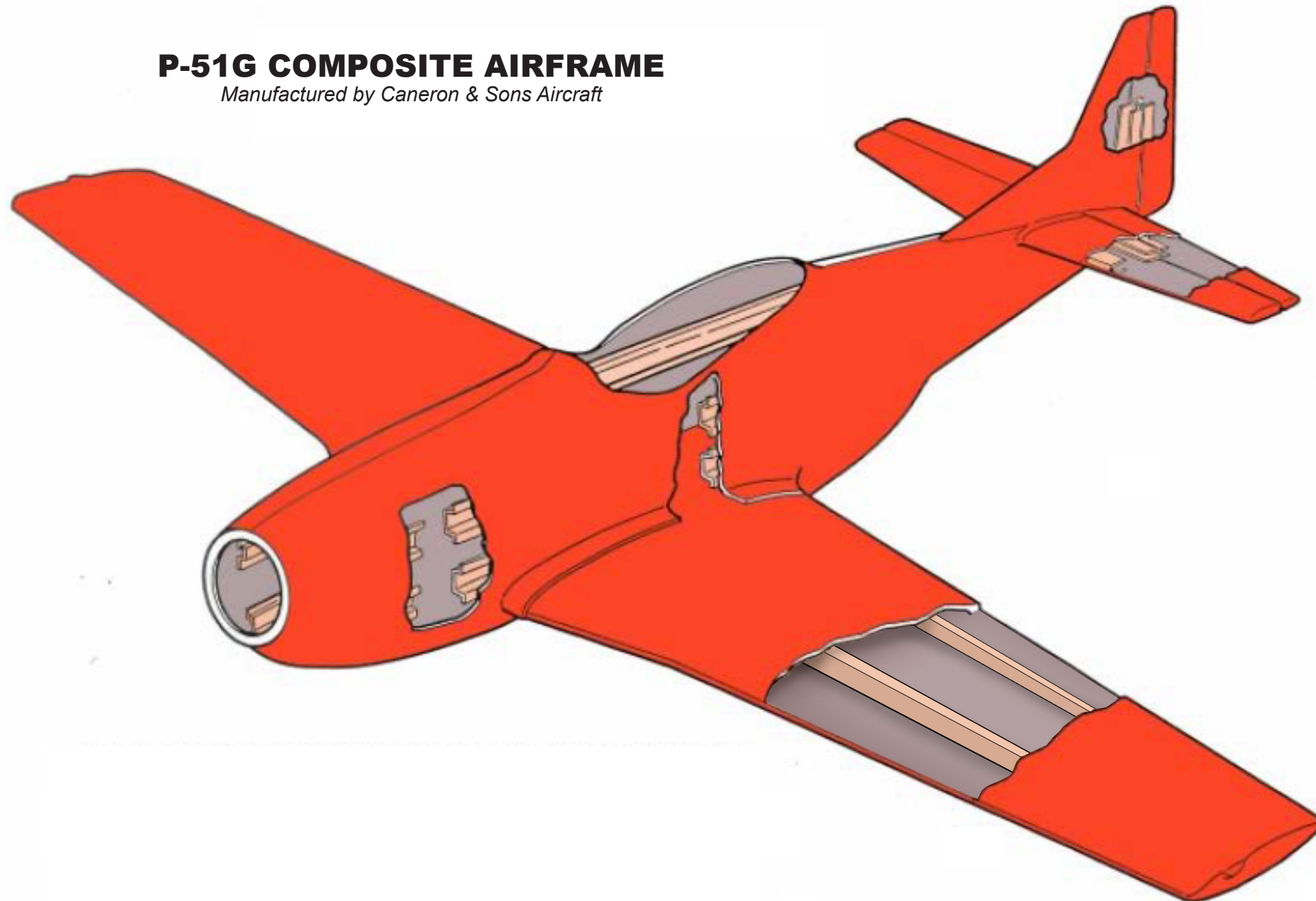
Subassemblies currently completed

- ***Fuselage***
 - ▶ *Autoclaved longerons*
- ***Wing***
 - ▶ *Autoclaved forward and rear spars*
- ***Empennage***
 - ▶ *3 Sets Complete*

Carbon Fiber Airframe

P-51G COMPOSITE AIRFRAME

Manufactured by Caneron & Sons Aircraft



Manufacturing Technology

The first Cameron P-51G airframe was fabricated in production graphite and steel tooling fixtures, a unique method of replicating the Mustang. Designed from the original drawings and measurements taken from actual P-51s, Cameron believes that this is a better performing Mustang than the original. It incorporates the best design features of the final models of the P-51.

The airplane has 12 major components, fabricated in left/right and top/bottom pieces.



Manufacturing Approach

A Partnership



Wing Subassembly



Final
Assembly



Fuselage
Subassembly



Empennage
Subassembly

Airframe Components

- **12 major airframe components**
- **3 Component Groups**
 - ▶ Wing
 - ▶ Fuselage
 - ▶ Empennage

COMPOSITE P-51G

Full Scale

Airframe reinforcement:

8551 IM7 8 Ply

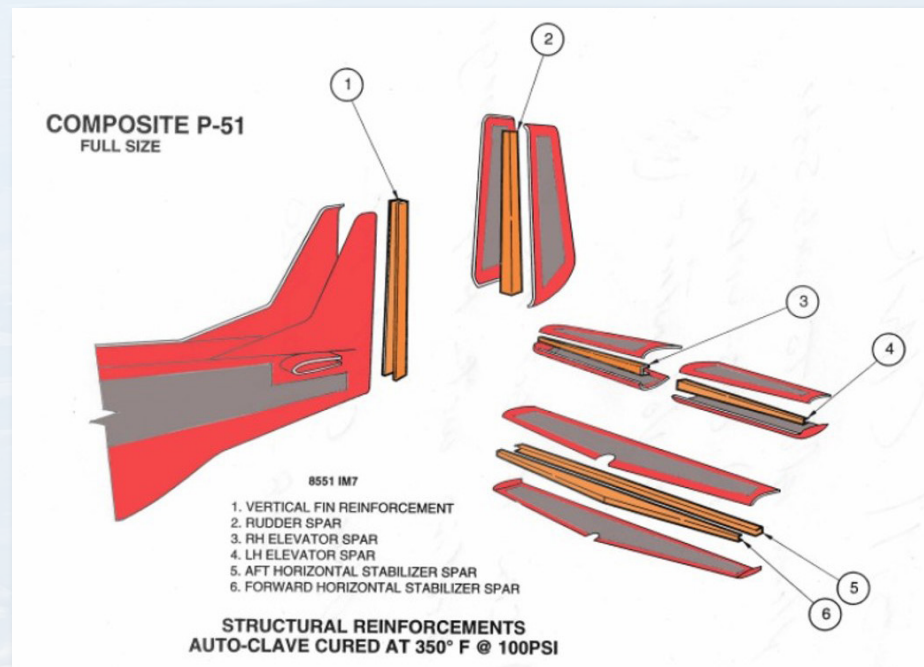
Isotropically oriented



**12 MAJOR
AIRFRAME
COMPONENTS**

Airframe Components

Empennage Group

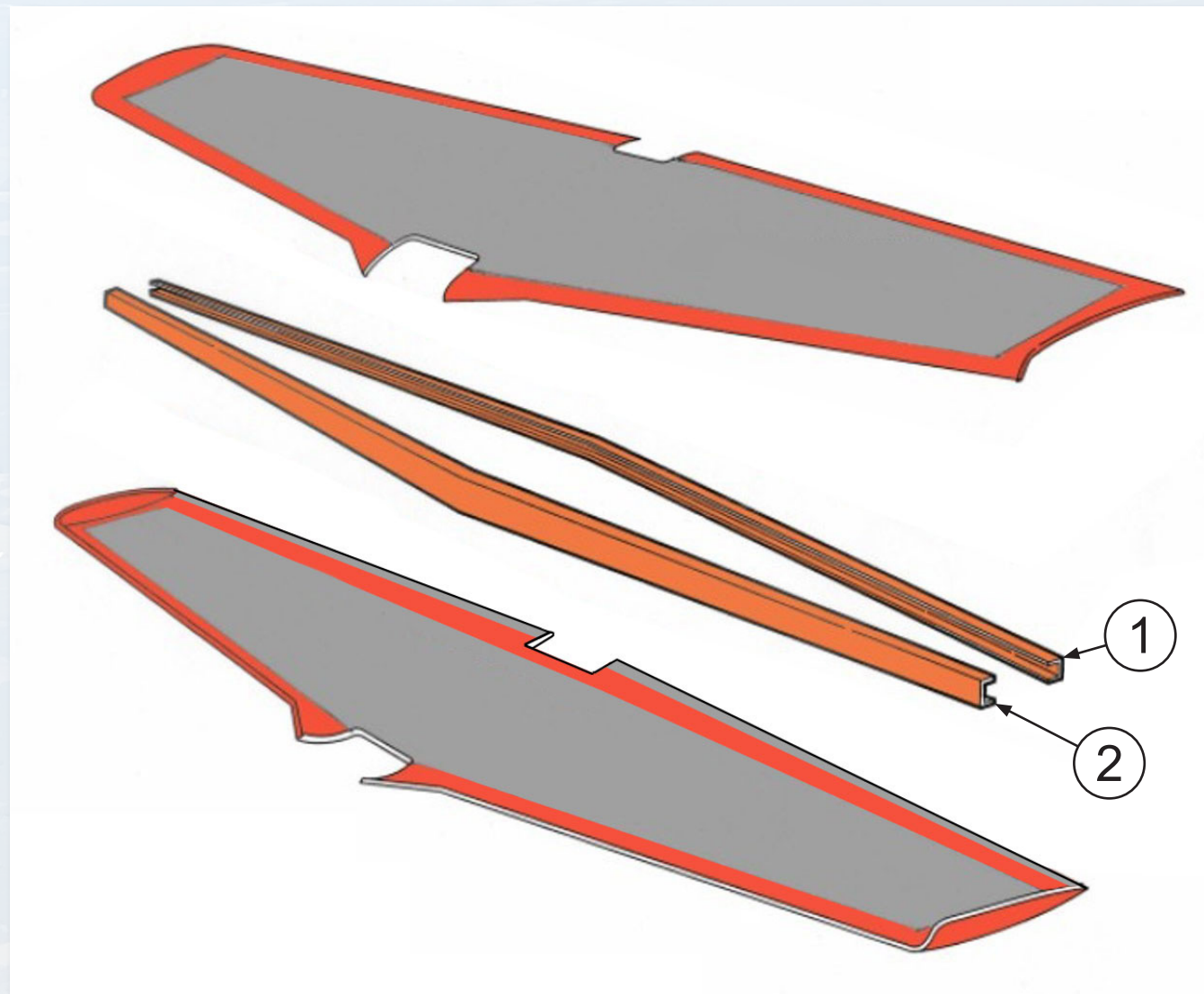


3 Sets *Each Complete*



Airframe Components

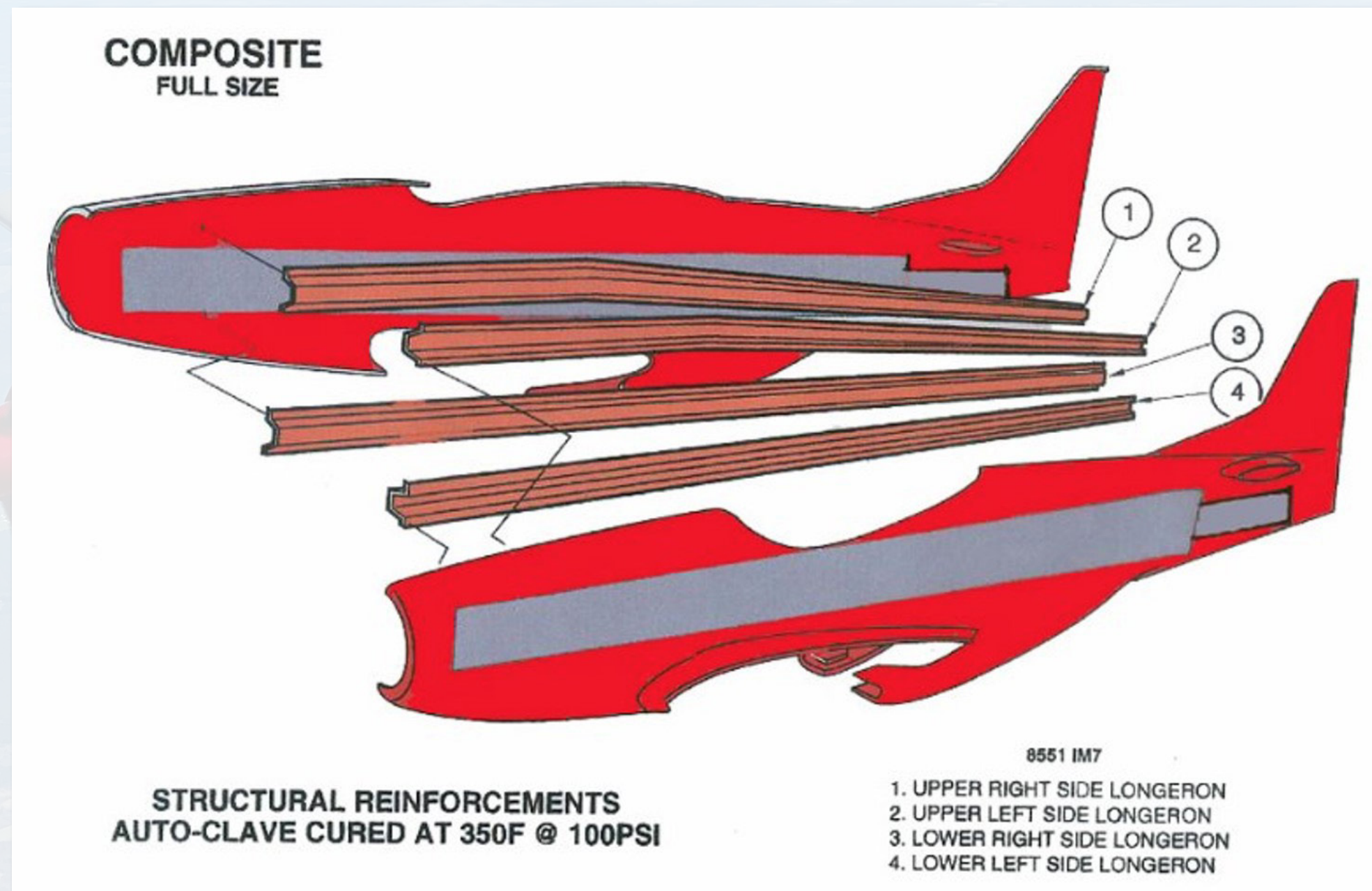
Wing Group



*1 Set Each Complete
Items 1, 2*

Airframe Components

Fuselage Group



*1 Set Each Complete
Items 1, 2, 3, 4*

Airframe Components

Landing Gear



On-Hand Materials and Equipment

FABRICATION MATERIALS:

- *Carbon fiber to complete 3–4 airframes*
- *Carbon-honeycomb material for 10 airframes*
- *Foam to complete 10 airframes*

EQUIPMENT:

- *All systems equipment to manufacture molds, tooling and airframes*

AVAILABLE MANAGEMENT/WORKFORCE:

- *Murdo Cameron, Founding Board Member, North Idaho College Composite Training Program*
- *Burt Rutan (Consultant/Advisor)*
- *20+ trained students from North Idaho Composite Training Program*

Projects and Experience

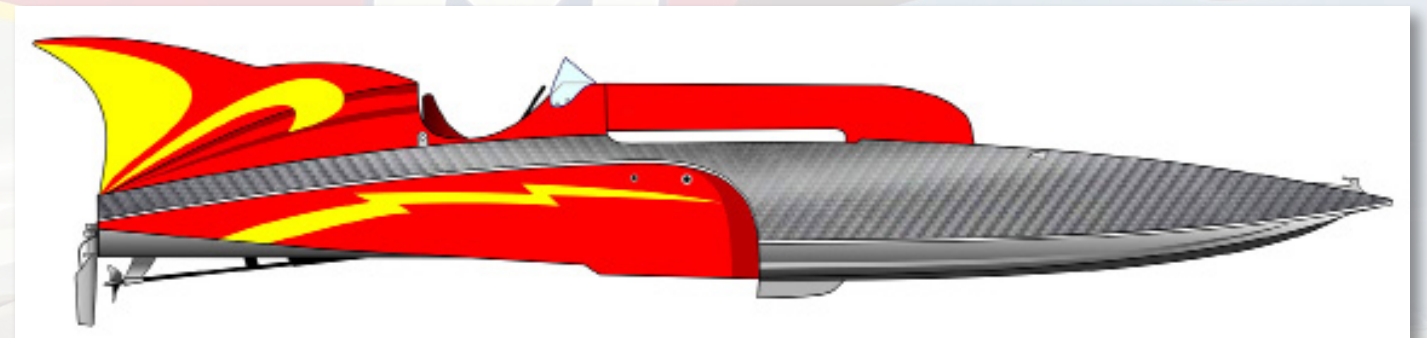
P-51G MUSTANG (FULL SCALE, TURBINE-POWERED)

- Autoclaved, resin-infusion composite construction
- Airframe designed and manufactured from only 12 major components
- Autoclaved and vacuum-based composite construction



UNLIMITED VINTAGE HYDROPLANE

- Resin-infused composite construction
- 2 major components



UNLIMITED TURBINE HYDROPLANE

- Resin-infused composite construction
- 3 major components

T-6 TEXAN BODY PANEL MANUFACTURING

- 28 Molds
- Over 40 body panels produced

