

The New Corvette CLA For ISR Missions



2,000 Mile Range* / 320 to 370 Knots Max Cruise / 35,000 ft ceiling / Low Operating Costs All-Carbon Construction, Numerous Engine Options to Achieve Max Range, Ceiling and Payload

Corvette ISR is derived from the aerodynamically clean Turbine Legend, a racing airplane developed in the USA under FAA Certification 14 CFR 21.91. 25 Turbine Legends are currently flying. The all-carbon airframe, computer-optimized P-51 derivative aerodynamics, and ability to accept range turbo prop engines – enable Corvette ISR to be a remarkably adaptable airplane for a range of ISR missions.

- 200-gallon fuel capacity (without external tanks) / Range +2,000 NM / Up to 3,000 lbs useful load*
- Standard Features: Trailing-link land gear, ballistic safety chute, winglets, stall strips
- Pressurized / Single or Tandem Seat / Fully Aerobatic / 15-G one-piece Carbon Wing
- 3, 4, or 5-blade Propeller Options Provide Quieter Options / Engine HP Range: 400 to 1,100
- Empty Weight: 2,050 Lbs / MTOW: 5,100* Lbs / Up to 10,000* FPM Climb Rate
- P&W PT-6, Honeywell-Garret, GE-Walter, Ivchenko-Progress; Rolls Royce/Allison
- New Engineering: 60 Knot Stall Speed *; "pilot-optional" navigation possible
- Open architecture Integration; sensors & data link to customer specs
- Will accept MX-15/or equivalent; SAR; data link options
- Ample/additional electrical power; anti-ice; retractable sensor pod option



Corvette ISR is based on the Aerodynamics of the Famous P-51 – Long-range Fighter

Engine Options For ISR

P&W PT-6 -- 500 to 1,200 HP Honeywell Garrett – 1,000 GE-Walter -- 850 HP Ivchenko-Progress – 450 to 650 HP Rolls Royce/Allison – 400 HP



Synthetic Aperture Radar (SAR) 58 inches long, 24 pounds, 275 watts

See Flying Demo: http://corvetteaerospace.com

^{*}Depending on engine, propeller, and systems



Corvette CLA Snap-Shot / Training Configuration

Performance*	
Max Cruise*	320 to 370 Knots (368 to 426 mph)
Loiter Speed	110 to 160 mph / 127 to 184 knots
Stall Speed*	60 knots (69 mph)
Max (Proven) Fuel Efficiency @ Cruise	28 gph @ 270 knots (311 mph) at 25,000 ft
Service ceiling*	35,000 ft (10,668 m)
G limits	+ 15/-9
Max Rate of climb*	10,000 ft/min (3,048 m/min)
Take Off Distance	< 1,500 ft
Landing Distance	< 1,500 ft
Max Range	+2,000 NM (200-gallon optional inboard tanks/Walter Engine)

^{*} depending on engine

Basic Configuration	
Crew	1 or 2 / Tandem Seat / Pilot Optional**
Sensor Operator	Sensor Operator Can Be Rear Seat or Ground-based**
Empty weight	2,050 lbs (930 kg)
Max takeoff weight / ISR Missions	4,100 lbs (1,860 kg)
Length	25 ft 9 in (7.84 m)
Wingspan	28 ft 6 in (8.69 m)
Height	9 ft 5 in (2.86 m)
Wing area	101.0 sq ft (9.38 m2)
Aspect ratio	8
Powerplants	Pratt & Whitney – PT-6 (550 to 1,200 HP) Walter M601/GE H Series – 720 hp (540 kW) Honeywell/Garrett – TPE-331-10; 1,000 HP (740 kW) ②Ivchenko-Progress Motor – 650 HP (485 kW) Rolls Royce/Allison 250 350 HP (261 kW)
Propellers	3- 4- and 5-blade options

^{*} Note: Corvette CLA performance varies according to engine type, propeller combination, and fuel load

^{**} Sophisticated options are available for discussion



Corvette CLA – Features and Performance Data / ISR Configuration

Corvette CLA ISR Aircraft	2021 Specification
Configuration	2 place Tandem, Center Sticks, Bubble Canopy
Empty Weight (Standard A/C)	2,100 lbs / #'s
MTOW	4,100 #'s
Std Fuel / Optional Fuel Capacity	120 US Gallons / 200 US Gallons /
Max. Crew Wt. (Each)	220 #'s W/ Parachutes
Stall Speed (Vso)	< 60 KIAS
Rate of Climb (650 HP/1,000)	> 6,200 / 10,000 FPM
Takeoff Distance (50' obst, Sea Level @ MGW)	< 1,500 FT
Landing Distance (50' obst, Sea Level @MGW)	< 1,500 FT
Max Cruise Speed (1,000 HP)	370 KTAS
Max Range	> 2,000 NM (200-gallon tankage)
Maximum Ceiling	35,000 FT / 10,668 m
Wing Configuration	Low Wing – One Piece / All Carbon
Landing Gear Configuration	Retractable Trailing-Link Tricycle
Primary Construction	All Carbon (Pre-Preg)
Load Factors	+15 / -9 G's (Infinite Life Rated)
Flaps	2/3 span Fowler Style Electric Actuation/40degrees deflection
Trim Tabs	3 axis, Roll, Pitch & Yaw Electric Servo on Center Stick Grip
Power Plants Standard / Options	P&W PT-6 / Honeywell-Garrett / GE-Walter
Power loading (650 HP / 1,000 HP)	5.3 / 4.1
Wing loading	34 / 40
Fuel System & Type	Pressurized / Dual Pumps
Propeller (Standard / Optional)	3 Blade Constant Speed Aluminum / Composite
Certified Operational	Day / Night / VFR / IFR as equipped / Known Icing**
Restraints	4- or 5-point harness
Standard Equipment Options	Adjustable Rear Seat / Adjustable Rudder Pedals
Panel & Avionics	Defined by Customer (Garmin G1000 suite is Standard)
Special Safety Features	Airframe Ballistic Parachute
Special Airframe Features	Stability Strakes on Empennage / Winglets / Over-sized flaps
Popular Optional Features*	Pressurization / Air Conditioning
Special Optional Features**	Hard Points / Weapons Systems / Ballistic Matting
	Integration Pre-Wired & Sensor Systems
	Data Link /Special Communications gear
	24" Wing Extensions (+ fuel tankage / - wing loading)

^{*}Engineering Complete

^{**} Engineering In Process



Corvette CLA – Detailed Features / ISR Configuration

Airframe:

All Carbon Components

Assembled/Flight Tested in US or In-Country

One Piece all carbon +15-G / -9 Wing

Assembled Canopy, Inflatable Canopy Seal

Firewall Insulation Blanket & Engine Mount

Complete Landing Gear and Retract Systems

Trailing Link Landing Gear Suspension System

Wheels, Brakes, and Tires

Pilot/Co-Pilot Braking Systems

Aileron, Elevator, Control Stick Systems

Flap Control System / 40 degrees deflection

Flap System on Roller Bearing Extension Tracks

Elevator, Aileron & Rudder Electric Trim Systems

Fuel System -- W/Selector, Probes, Locking Caps

Seat Belts and Shoulder Harnesses

Pitot Static Hardware

Lights, Antennas, Eyeball Vents, Cabin Heat

Boost Pump,

Voltage Regulator, Battery, Battery Box,

Necessary Airframe Hardware, Tubing and Hoses

Firewall Forward:

Pratt & Whitney PT-6A – 750 HP or GE-Walter (Std.)

Hartzell Propeller, 3-blade

All Controls, Accessories and engine systems complete

Full Glass Panel, Electronics & Avionics:

Garmin G-1000 is Standard

Engine Information System

SAM Instrument back up gauges

GSU 25 Dual ADAHRS

Landing Gear Indication

Compass

Power Distribution Grids, Single Alt / Single Batt

Infinity Stick Grips

Kannad Integra ELT

Comm and Data Link Antennae

Plug & Play Airframe & Engine Harness

Co-Pilot EFIS + Emergency gauges

Pencil Cameras – Forward-looking

Air Frame & Wing:

BRS - Airframe Ballistic Safety Chute

Winglets & Stall Strips

Adjustable Rudder Controls - Pilot / Co-Pilot

Adjustable Co-Pilot Seat

Canopy Cover

Ballistic Matting (pilot protection)

Specialty Paint and Coatings

Mission Data/Performance Recorder

Integration, ISR Sensors and Data Link:

Open-Source Integration Architecture

Templated wiring harness, screens, computer systems

- >> Installed in USA
- >> Installed in-country according to customer preferences

EOIR as large as MX-15 w/laser designator, sensors include all best-technology platforms – high-rez digital video/still, LiDAR, and hyper-spectral

SAR – both flat-panel or tube

Advanced technology amplification, antenna

systems, encryption tools are available

Advanced on-board computer and multiple petabyte data storage systems are available

Additional Services:

Execution of all FAA Paperwork

Completion of Customer POH

Ferry / Shipment & Assembly

In-Country Quality Assurance

Pilot Training - Traditional

Pilot Training - New Virtual Reality (VR) Tools

Maintenance Modules

Public Affairs Services