

THE RV-12

A NEW DESIGN FROM VAN'S AIRCRAFT, INC.



The RV-12 is Van's newest design, intended to meet the standards of the new Light Sport Category. It's a two-seat all-metal side-by-side airplane with a large cabin that seats the occupants ahead of the wing spar for maximum room and superb visibility. It is powered by a Rotax 912S 100 hp engine turning a Sensenich composite ground-adjustable propeller.

DESIGN GOALS

We have set several goals for the design.

- Flying qualities equal to or better than the RV-9A (not easily achieved!)
- A 550 lb. payload – this equates to two 190 lb. people, 120 lbs. of fuel and 50 lbs. of baggage.
- 750 lb empty weight

From the construction point of view, we want:

- A low parts count, to reduce kit costs and assembly time
- Systems installation at the lowest possible level of structural subassembly
- Minimal use of composites
- Maximum use of simple hand tools, possibly eliminating the need for pneumatic tools (not the desire for them, perhaps, but the need!)

DESIGN FEATURES

We incorporated several new ideas (new to us, at least) into N912VA, our proof-of-concept prototype.

- **Removable wings.** The two spar stubs projecting from the inboard ends of the wings overlap inside the fuselage and are secured with two large pins, fitting into carefully machined bushings.
- **Full span flaperons** will hook up automatically as the wings are installed using fittings similar to those proven over many years in sailplanes.
- **An all-moving stabilator** because it can be smaller than a conventional stabilizer/elevator arrangement and permits the airplane to fit into a trailer.

WHEN WILL IT BE READY?

The **proof-of-concept** prototype RV-12 N912VA flew in November, 2006. The results have been gratifying — it is a good airplane with nice flying qualities. Most of our design goals have been met, but we have learned a great deal from N912VA and feel we can make the RV-12 even better. A new **kit-prototype** aircraft, incorporating several improvements, is now under construction.

We will not offer RV-12 kits for sale until flight testing of the kit prototype is complete and we are satisfied with the performance and handling characteristics. At the earliest, this would be sometime in the fourth quarter of 2007.

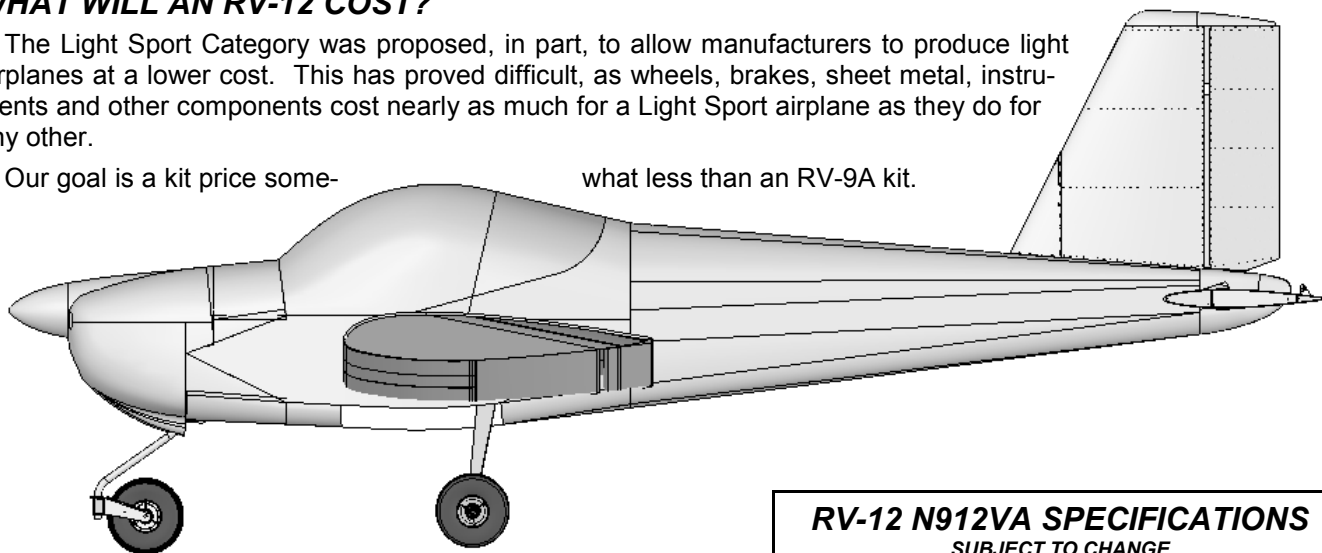
We envision starting with kits similar to our Standard Kits and progressing to QuickBuild versions soon thereafter. We anticipate that OEM engines, propellers, etc. will be available.

After that, we may consider a Special LSA kit. This category allows the kit manufacturer to complete more than 49% of the airframe.

WHAT WILL AN RV-12 COST?

The Light Sport Category was proposed, in part, to allow manufacturers to produce light airplanes at a lower cost. This has proved difficult, as wheels, brakes, sheet metal, instruments and other components cost nearly as much for a Light Sport airplane as they do for any other.

Our goal is a kit price somewhat less than an RV-9A kit.



TOTAL PERFORMANCE

Performance of Light Sport Aircraft is defined by the rules of the category:

- Maximum takeoff weight: 1,320 lbs (599 kg.)
- Maximum stall speed (flaps up): 51 mph (45 knots)
- Maximum speed, level flight w/maximum continuous power: 138 mph (120 knots)

Our goal is to produce an airplane that meets these performance standards.

However, speed and carrying capacity is only part of the story. Traditionally, RVs have been known for excellent flying qualities — they are responsive without being “twitchy”, quick without being abrupt, and offer high performance while still being easy to fly.

We are proud of that tradition and will be doing our best to make sure that the RV-12 takes its rightful place in our line of Total Performance airplanes.

Watch our website for details on price and availability.

RV-12 N912VA SPECIFICATIONS SUBJECT TO CHANGE

SPAN	26' 8"
WING AREA	127 sq.ft.
LENGTH	19' 11"
EMPTY WEIGHT	750 lbs
GROSS WEIGHT	1320 lbs
WING LOADING (gross weight)	10.4 lbs/sq. ft.
POWER LOADING (gross weight)	13.2 lbs/hp
FUEL CAPACITY	20 US gallons
CABIN WIDTH	43"
BAGGAGE CAPACITY	50 lbs
ENGINE	Rotax 912S
PROPELLER	Sensenich ground-adjustable

VAN'S AIRCRAFT, INC.

14401 NE Keil Road
Aurora, Oregon USA 97002
(503) 678-6545 FAX (503) 678-6560

ON THE WEB AT: www.vansaircraft.com
e-mail: info@vansaircraft.com