

December '83

News from the land of the Lazair™



Full Cockpit Enclosure for the Lazair

Visitors to the International Ultralight Exposition in Los Angeles (November 11, 12 & 13) were the first to view the new full enclosure for the Lazair. Designed to fit the Series III Lazair and other single-place models in current production, the enclosure will be available as an optional accessory early in 1984.

Comprised of a fiberglass reinforced polyester shell with a polycarbonate windshield, the enclosure weighs under thirty pounds, which allows a stock Series III Lazair with the enclosure to remain within the 254 pound FAA weight limit for ultralights. In addition to low weight, other design goals included low aerodynamic drag, ease of entry, a pleasing appearance and a minimum obstruction to the pilot's visibility. Based on test results, pilot reports and the enthusiastic response from visitors at the Los Angeles show, it appears that all the objectives have been met.

Flight tests using an aluminum mockup have shown no adverse effect on the Lazair's superb flight characteristics, but a definite (though not yet measured) reduction in drag. Entry and exit are made by sliding the entire forward portion of the enclosure (including the windshield) ahead, then tipping it upward slightly into the latched-open position. Although the subject of aesthetic appeal is obviously very subjective, comments from those who saw the display in Los Angeles as well as those who have witnessed test flights have been overwhelmingly positive. The reduction in visibility caused by the enclosure is so slight that officials of the Monterey Park Police Department have decided to use the enclosure on their surveillance Lazair. The enclosure kit will come complete with all molded parts, windshield, mounting hardware and instructions.



And Then There Were Four ...

In response to a demand for a wider selection of aircraft to fit many varied applications, the Lazair™ product line has been broadened to include four types.

The <u>Lazair Series III</u> is the standard Rotax 185 cc powered single place aircraft, with full 3-axis control, rudder pedals, wide track landing gear, disc brakes and wheelpants all included, sold in kit form.

The <u>Lazair SS (Surveillance Special)</u> was developed in response to the specific requirements of Police Departments. It is essentially a Lazair Series III with the addition of some components from the Lazair II two-place trainer. These include the two cylinder 342 cc engines to increase payload and top speed, jury struts to increase limit loads, and larger pushrods for even greater control precision. The SS is completely assembled and test flown before delivery, and includes a complete instrument package.

The unveiling of the Lazair SS at the International Association of Chiefs of Police Convention in Detroit resulted in a flood of inquiries for an aircraft similar to the SS for civilian recreational use. This prompted the introduction of the <u>Lazair Elite</u>. The Elite is virtually identical to the SS, but is sold in kit form. Although similar in design, the specifications for the two aircraft are different. Since the SS is required to carry radios, batteries, bullhorns, lights etc. required by the Police, it is rated for a higher gross weight. As the Lazair Elite is intended for sport flying, it has a lower specified gross weight, but higher limit load factors.

Completing the list is the <u>Lazair II</u>, a two-place trainer designed specifically for instructional use. It has the same 3-axis stick-and-rudder control system as the single-place models, but all flight controls are completely dual. Seating is side-by-side and the aircraft can be solved from either seat.

The salient features of the four models are shown by the table below.

	Lazair Series III	Lazair SS	<u>Lazair Elite</u>	<u>Lazair II</u>
Configuration	Single-place	Single-place	Single-place	Two-place
Empty Wt. (lb.)	210	230	230	265
Gross Wt. (1b).	420	570	440	725
Load Limits	+4, -1.3	+5, -2	+7, -3	+4, -2
VNE (mph)	55	65	65	62
Engines	Rotax 185	Ultra 342	Ultra 342	Ultra 342
	(KIT)	(ASSEMBLED)	(KIT)	(KIT)

And Now a Bear in the Air (in a Lazair)

The City of Monterey Park, California, realizing that ultralight aircraft could provide a cost effective method of supplementing police patrol and increased crime prevention, became the first police department to put an ultralight aircraft in the air for law enforcement purposes.

Although operational results were very satisfactory, the single-engine ultralight aircraft initially selected had an unacceptable number of engine failures and subsequent forced landings. It was felt that the safety margin had been reduced to the point of being impractical and, earlier this year, the program was discontinued.

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Then in August, Monterey Park heard of the twin-engined Lazair. An invitation was extended to Ultraflight to demonstrate single engine performance and flight characteristics to determine whether the aerial patrol program could once again get off the ground. A demonstration was scheduled for September 26. It was at this demonstration that it became evident to city officials that the desired level of safety could be achieved using the twin engine Lazair. The following day, City of Monterey Park Chief of Police, Jon D. Elder enthusiastically announced that the ultralight program would be reinstated, using the Lazair SS.

Unlike the Series III Lazair, which is fully controllable but will not normally climb on a single engine (or most other ultralights which sink like a stone when they lose an engine) the Lazair SS can easily climb at 100 to 200 fpm with one engine out. The demonstration of this engine-out capability was the single most important factor in Monterey Park's decision to reactivate the program. It is a well known fact that no engine, no matter how good it is, can be totally immune to failure, but when a pilot knows that if an engine should stop, he still has another one to fly back to his base on, he is more able to relax and can devote more of his attention toward his mission objectives.

In a recent meeting with Ultraflight, Lt. Joseph Santoro, the impetus behind the Monterey Park program, stated that the test phase of the program is over. They have proven the worth of the ultralight in police activities and the next step is to put it into full operational use.

LAZAIR - Cover Story in 'Ultralight Pilot'

For over a year now, the editor and staff of AOPA's Ultralight Pilot magazine have been building, test flying, and reporting on most of the popular ultralights. During this time, editor Thomas A. Horne has earned a reputation for wielding his pen like a broadsword in his evaluation of ultralights. With this in mind, we had mixed feelings when we initially learned that they wanted to do a story on the Lazair. Coverage in a magazine of this stature can have a tremendous impact on sales, but the effect can be either positive or negative - depending upon the tone of the article. However, when the twelve page spread on the Lazair (the most ever devoted to any ultralight) appeared in the September/October issue, our state of trepidation soon turned to euphoria. They liked it! Where the writers had many negative comments about most of the other ultralights, they were very positive in their report on the Lazair. From the cover, which calls the Lazair "The Ultimate Ultralight Twin", to the last line which reads ". . . the Lazair represents probably the best investment a prospective ultralight purchaser can make", the article praises the Lazair and confirms the advertised flight characteristics and specifications. The photographs, especially the centerfold which shows the Lazair in soaring flight over the Virginia countryside, are among the best Lazair shots we have seen. Perhaps the best indication of the mood of the article is the fact that we became the first (and only) manufacturer to date to purchase reprints of an Ultralight Pilot article for use in advertising and information packages.

Customer Survey Results

Several weeks ago, we mailed a questionnaire to all Lazair owners. Considering the time required to complete it, and the fact that those who returned the form had to supply postage, the response has been overwhelming. At the time of writing, over 30 percent of all owners have responded and forms are still being received at a rate of several a day. Since a return of 10% for such surveys is generally considered good, we are extremely pleased with the response, and wish to thank all of you who took the time to complete the form and send it in. Your comments will help to shape our products and policies over the next few years. From the replies received to date, we have compiled a few preliminary statistics you may find interesting:

- Over 75% of Lazair owners who responded have (or had) a private or commercial pilots licence.
- The average owner has 60 flight hours on his Lazair.
- The average build time was 202 hours (although several owners completed construction in less than 100 hours and one took over 500 hours).
- 92 percent of owners who responded said they would buy a Lazair again.

Upgrade Retrofit Kits

Since the introduction of the Series III Lazair, we have received many requests for retrofit kits to upgrade earlier models. As of December '83, this is the status of these kits:

BRK2 Brake Kit for Series II (narrow gear) Lazair

- available from stock
- custom disc brakes compatible with Ultraflight wheelpants
- requires rudder pedals to be installed prior to brake installation (as brake pedals are mounted on top of rudder pedals)
- brake configuration and mounting is similar to that used on two-place Lazair, and this kit is \underline{not} compatible with wide gear.
- list price* \$200.00 CDN (\$160.00 U.S.)

WGK2 Wide Gear Kit for Series II Lazair

- available late January '84

GBK2 Complete Wide Gear and Brake Kit for Series II Lazair

- includes brakes and mounting hardware similar to Series III, for use with wide gear.
- available late January '84

JSK Jury Strut Kit

- can be used on Series I,II or III Lazairs to increase negative limit load factor
- available from stock
- list price* \$59.00 CDN (\$48.00 U.S.)

BTWK Ball Bearing Tailwheel Kit

- replacement for 2 inch dia. tailwheel
- available mid January '84

CTWK Full Castering, Leaf Spring, Ball Bearing Tailwheel Kit

- similar to Series III Lazair
- not recommended for use on aircraft without wheel brakes
- available mid January '84
- * All prices shown are Manufacturer's Suggested List Price, F.O.B. Port Colborne, Ontario, Canada, and are subject to change without notice. When ordering any of the items specified in this bulletin be sure to enclose sufficient funds to cover postage/shipping charges. This will avoid delays in the processing of your order.