

## SAILPLANE RECOVERY SYSTEMS →

# WORLD CLASS GLIDER DESIGN COMPETITION: U.S. ENTRY IS ONLY FINALIST WITH BALLISTIC RECOVERY SYSTEM

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**B**ALLISTIC RECOVERY SYSTEMS ARE rarely seen in sailplanes, no matter where in the world you look. That's why so many pilots pointed fingers and wondered, "what's that black-nylon pack hanging inside the fuselage truss?"

Some speculated it was for water ballast.

Others guessed it was some kind of out-landing emergency-tool and first-aid kit.

No one guessed it was a rocket-fired parachute ....

### COMPETITION GOALS WERE TO CREATE A NEW MEDIUM-PERFORMANCE, AFFORDABLE, AND SAFE SAILPLANE TO REPLACE AGING SINGLE-SEAT TRAINERS

The success of the World Class Glider Design Competition has yet to be seen. The purpose of the competition was to create a new, low-cost, medium-performance, safe sailplane that can be purchased for under \$20,000. Recent \$30,000+ prices of competition sailplanes have made the cost of soaring and competing in regional and national soaring events increasingly prohibitive.

Extensive safety research over the last decade has also made it possible to build safer training gliders.

Sales of the winning design, the Polish PW-5 World Class Glider, are picking up. According to Solaire, the U.S. distributor, 45 delivery positions have been filled. Depending on demand, additional World Class gliders may soon be available from other manufacturers building the PW-5 under license. (At least that's what the original World Class idea was).

### NO BALLISTIC RECOVERY SYSTEM IN WINNING DESIGN

The PW-5 manufactured

Front and side views of the Second Chantz installation in the Cygnet fuselage truss.

in Poland does not currently feature a ballistic-recovery system. However, design rules allow for unlimited flexibility within the fixed external configuration, enabling manufacturers and kit builders the option to incorporate a recovery system. Competition pilots are most likely to find comfort with the rapid deployment of a ballistic-recovery system: while mid-air collisions are quite rare, they are most likely to occur at altitudes below 1,000 feet early in the competition where many pilots might be circling in the same airspace prior to the first cross-country leg.

### SECOND CHANTZ CHUTE PRESENTED AT 1992 OSTIV SAFETY COMMITTEE MEETING IN OERLINGHAUSEN

While at the World Class Competition in Oerlinghausen, the Cygnet's Second Chantz ballistic-recovery system was presented to the 1992 OSTIV Safety Committee, which meets once a year. The OSTIV committee is the primary body worldwide for promoting sailplane safety and makes recommendations each year on how soaring can be made even safer. Most sailplane manufacturers incorporate the latest OSTIV recommendations into their newest designs.

It was the first ballistic-recovery system to be presented to the OSTIV committee. No immediate action was taken by the committee to recommend further research or testing of ballistic-recovery systems in sailplanes, though one member of the panel, Mike Cuming (England), expressed particular

interest in seeing further development of recovery systems for sailplanes.

In general, the OSTIV panel is very receptive to most new safety innovations. As recovery systems become more widely used in sailplanes, we may eventually see the accumulation of hard test data and guidelines for the usage of ballistic-recovery systems in sailplanes established by the OSTIV panel.

### CYGNET MOCK-UP TEST DEPLOYMENT IS SUCCESSFUL

The Cygnet's Second Chantz recovery system was test-fired successfully from a ground mock-up in Reno, Nevada, in 1992. No airborne test-firing is anticipated until another prototype aircraft is available.

Should the Cygnet go into production, airborne test-firing will probably be conducted sometime during the airframe destructive-test phase.

For additional information on the newly established World Class and World Class competition rules, contact the Soaring Society of America, P.O. Box E, Hobbs, NM 88241-7504, (505) 392-1177.

For additional information on the Cygnet-World Class glider, write Cygnet-World Class Inc., 5614 NE 60th St., Seattle, WA 98115.

For additional information about Second Chantz ballistic-recovery systems for sailplanes, contact Second Chantz at 4910 Aircenter Circle #102, Reno, NV 89502, (702) 829-2077.



Above, the Cygnet-World Class glider prototype is equipped with a Second Chantz ballistic-recovery chute.

Left, Mike Cuming, one of the World Class judges from England, was especially interested in the recovery system.

At center, Gary Ragsdale of Cygnet-World Class Inc. shows the ballistic-recovery system to the OSTIV panel of safety experts in Oerlinghausen. One elderly member decided it was a good time to take a nap.

### DEVELOPMENT OF SECOND CHANTZ RECOVERY SYSTEM FOR NEW RUSSIA 12.6M SAILPLANE COULD BEGIN ONCE FLIGHT TESTS ARE COMPLETED

Flight tests on the Russia 12.6m glider are currently under way in Seattle. With an empty weight of 273 lbs, the small glider is ideally suited for existing ballistic-recovery systems. Once flight tests are completed with positive results, a Second Chantz recovery parachute will be developed for the glider and sold as an option.

Prototypes competed in the World Class Glider Design Competition in Oerlinghausen, Germany, in 1992 as Russia 1 and Russia 2. Like the Cygnet, they were not completely finished when they arrived in Oerlinghausen and were not allowed to compete in the flight-evaluation phase of the competition.

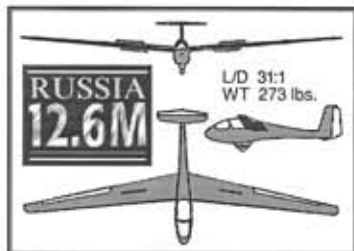
One well-known World Class evaluation pilot said the glider would probably have been his choice as winner of the competition had it been completed.

The lightweight Russia glider is all fiberglass, has a 41.3-foot wingspan and has a 31:1 glide ratio.

Six Russia gliders will be available in the U.S. during the fall of 1994 for under \$20,000 dollars,

ready to fly.

A flight evaluation by Dick Johnson has been scheduled during fall



1995.

For additional information on the Russia glider, write Don Roberts, 5614 NE 60th St., Seattle, WA 98115.

Safety features, good performance, easy set-up, low cost, and docile handling characterize the latest generation of primary training gliders like the Russia 12.6m below.

