

This aerial view (by Walter Striedieck) looks northwest and shows the airfield at Leszno about 30 minutes before the start of the launch. A couple of gliders (including an Eta) are on their way to the grid, near the center of the huge grass field. In the distance are some typical Polish fields (obviously, the landability is great). Here is a legend: 1–Hangar where scoring office and team cubicles were located. 2–Briefing hangar. 3–Maintenance hangar. 4–Administrative building, with tower. 5–Parking for Wilga tow planes. 6–Parking for Cmelak tow planes. 7–U.S. Team trailers 8-Cornfield, occasional scene of "corn shark" sightings.

The 28th World Gliding Championships were held at Leszno, Poland from July 22 through August 10, 2003. Many superlatives apply:

- The third time a WGC had been held at Leszno (the previous ones were 1958 and 1968) - the most ever at a single
- The largest number of countries competing 31
- The largest number of gliders at a World competition 128
- The most competition classes 4
- The most flights well over 1500
- The largest gliders ever to compete two Etas, each with a span of 101'
- · Some of the best weather ever
- The highest scores by the winners all had well over 10,000 points
- The most efficient tow operation

Not every one of these categories may actually be a valid record, but they certainly added up to a memorable contest.

Leszno

gazine

Leszno is located in western Poland, about 300 km southeast of Berlin. The surrounding terrain is flat and consists of forested areas, some lakes, a couple of very broad and shallow river valleys, and large agricultural fields. At the start of the practice

period, many of these had crops; by the end of the contest, most were harvested and landout options had gone from fairly good to superb.

The Leszno airfield is huge – it includes several large hangars, a modern administration building, and something like 300 acres of smooth grass. The giant airfield made for remarkably few problems parking, gridding, landing and retrieving 128 gliders. Very few glider fields anywhere in the world could hope to handle this many aircraft without major hassles; at Leszno, it was done with remarkably little fuss or strain - you got the feeling that 200 would have been possible.

The weather was an important part of the story. All through Europe, Summer 2003 was one of the hottest and driest ever. This led to some problems (100 degrees in London is about as comfortable as 115 would be in New York) but it also produced some superb soaring conditions. In Germany, 1000 km flights were commonplace. The weather at WGC 2003, while not perfect every day, was at times closer to what you'd expect of Uvalde than of western Poland. Twelve competition days with speeds occasionally pushing 130 kph were the result.

Contest Operations

The launch deserves special comment. You would have to assume that even a site with Leszno's experience would be hard

October 2003



This aerial view (by Walter Striedieck) looks northwest and shows the airfield at Leszno about 30 minutes before the start of the launch. A couple of gliders (including an Eta) are on their way to the grid, near the center of the huge grass field. In the distance are some typical Polish fields (obviously, the landability is great). Here is a legend: 1–Hangar where scoring office and team cubicles were located. 2–Briefing hangar. 3–Maintenance hangar. 4–Administrative building, with tower. 5–Parking for Wilga tow planes. 6–Parking for Cmelak tow planes. 7–U.S. Team trailers. 8–Cornfield, occasional scene of "corn shark" sightings.

The 28th World Gliding Championships were held at Leszno, Poland from July 22 through August 10, 2003. Many superlatives apply:

- The third time a WGC had been held at Leszno (the previous ones were 1958 and 1968) the most ever at a single site
- The largest number of countries competing 31
- The largest number of gliders at a World competition 128
- The most competition classes 4
- The most flights well over 1500
- The largest gliders ever to compete two Etas, each with a span of 101'
- · Some of the best weather ever
- The highest scores by the winners all had well over 10,000 points
- The most efficient tow operation

Not every one of these categories may actually be a valid record, but they certainly added up to a memorable contest.

Leszno

Leszno is located in western Poland, about 300 km southeast of Berlin. The surrounding terrain is flat and consists of forested areas, some lakes, a couple of very broad and shallow river valleys, and large agricultural fields. At the start of the practice

period, many of these had crops; by the end of the contest, most were harvested and landout options had gone from fairly good to superb.

The Leszno airfield is huge – it includes several large hangars, a modern administration building, and something like 300 acres of smooth grass. The giant airfield made for remarkably few problems parking, gridding, landing and retrieving 128 gliders. Very few glider fields anywhere in the world could hope to handle this many aircraft without major hassles; at Leszno, it was done with remarkably little fuss or strain – you got the feeling that 200 would have been possible.

The weather was an important part of the story. All through Europe, Summer 2003 was one of the hottest and driest ever. This led to some problems (100 degrees in London is about as comfortable as 115 would be in New York) but it also produced some superb soaring conditions. In Germany, 1000 km flights were commonplace. The weather at WGC 2003, while not perfect every day, was at times closer to what you'd expect of Uvalde than of western Poland. Twelve competition days with speeds occasionally pushing 130 kph were the result.

Contest Operations

The launch deserves special comment. You would have to assume that even a site with Leszno's experience would be hard

19

October 2003



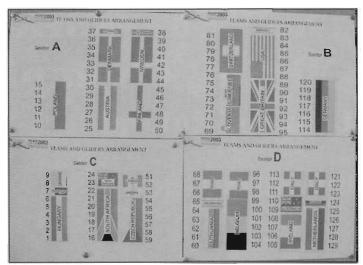
A view of Polish skies from the cockpit of ZQ – a Ventus 2cx owned by Don Pollard and flown by Gary Ittner.

put to launch 128 gliders in an hour – perhaps it could be done once, with a special effort, but to do it consistently for 15 days (practice plus competition) would have to be almost impossible. No doubt many observers at WGC 2003 were thinking this way, but they were wrong. Launch times of around an hour were typical at the start of the contest, and had everyone amazed. But then the launch crew really hit its stride, and the times began to drop. By the end of the contest, under 50 minutes was normal and the record was 44 minutes – not much more than 20 seconds per glider.

There were several keys to this remarkable performance. Gliders were gridded in 20 rows, some up to 10 gliders wide, in the middle of the huge field. It was then possible to run two separate launch operations. On the left side of the grid, 12 radial-engined Wilga (a Polish word meaning "Thrush") tow planes were landing and taking off at a furious pace. It was a fine show, but rather badly upstaged by what was happening on the right: here, 6 turbine-powered Cmelak ("Tschmielak" - a Czech word meaning "Wasp") tow planes were dazzling everyone with under-4-minute turnarounds. A Cmelak looks something like an overgrown Pawnee that has swapped its struts for winglets. With 600 horsepower and a reversible-pitch propeller, their takeoff and landing distances had to be seen to be believed. They used only about 60% power during climbout - even the best glider pilots in the world can have trouble handling climb rates that exceed 1500 fpm.

It was as good as an airshow every day. One small drawback to this two-ring circus was that there was no safe way to drive to or from the grid once the launch commenced – all crew vehicles were obliged to stay at the back of the grid until all launches were complete. This led to another big event – the daily "Oklahoma land rush" when the launch was declared complete and 128 vehicles simultaneously sprinted to the trailer parking area. The published speed limit was 30 kph – perhaps half the vehicles stayed under 30 mph.

Finishes were often another grand show. The finish line gener-



Here's how you lay out parking for 128 gliders.

ally coincided with one of the airfield boundaries. Pilots could choose either a "speed" finish followed by a pullup and a pattern, or a "direct" finish – straight in. The second option was the overwhelming favorite, both with pilots and with spectators. Once a pilot was sure he had enough energy to make the field, the idea was to get down low and do the last kilometer or so very close to the ground. Finishing from the east, this had pilots skimming over a large cornfield adjacent to the airfield. The perspective often meant that ground-bound observers saw nothing but the vertical fin for 10 seconds or longer. The gliders that did this thus became known as "corn sharks" – they were a popular spectacle.

At Leszno, this type of finish was a safe maneuver. The wide and long grass field meant that plenty of gliders could land at once, and a safe stop was always possible, even when crossing the fence at near-redline speeds. There were a few gear-up landings (easy to do when you're not flying a pattern), but on smooth grass these aren't much more than embarrassing. There were also a couple of groundloops, but again the damage was mostly limited to red faces (it's a challenge to appear nonchalant as you sit in your cockpit on the runway facing the direction from which you've just come, knowing that fifty of your friends are still headed at you).

Indeed, this was a remarkably safe contest. Midair collisions and near misses have been seen at several World Gliding contests, and lots of people assumed that with a record number of entrants, WGC 2003 was bound to see its share of such problems. Yet none was reported. No doubt the good weather contributed – we saw only a few days on which giant pre-start gaggles were the norm. The landability of the task area was firstrate, so what landouts there were generally took place in large, flat fields. The worst damage was to a trailer – it rolled over during a retrieve (see the sidebar).

The task-setting got fairly good marks. The scouting report (based on the expectation of typical European weather) said that we'd see long tasks and perhaps plenty of landouts, with pilots who started a bit late not making it home on days that died early. In the face of this, the initial task calls seemed surprisingly short (the first two days were devalued). Things then seemed to kick into a higher gear and reasonably long tasks became the

standard. On Day 5, things obviously went wrong: the fleet was sent out on sizeable tasks in hopeless conditions; not a single glider came close to finishing (though all landed safely). After this, both the weather and the task calling improved, and the only real anomaly was some rather short tasks on the final day (which can easily be defended using a "Let's get them home for the farewell party" argument).

Bugs and Other Issues

There were some problems. Leszno is not generally reckoned to be bug-plagued, but it certainly was at the start of WGC 2003. Gary Ittner did some careful counting during the early practice period and came up with an estimate of 5 smashed bugs per centimeter after a flight of several hours – 9000 bugs on the wings of his 18-Meter Ventus 2cx. During his final glide, this degraded the glider's performance by 15%. To cope with this insect invasion, essentially all pilots installed bugwipers (see the sidebar).

The relatively laid-back attitude of the contest organizers was appreciated by everyone – there were notably few arbitrary and troublesome regulations. One that came close was a requirement that all flight logs had to be turned in to the Scoring Office within 30 minutes of a pilot's landing. With a giant airfield and dozens of gliders landing at once, it could sometimes take 20 minutes or more simply to tow a glider back to its trailer. It was then a serious scramble to get the flight log transferred to a disk and the disk rushed across the large trailer parking area and into the hands of the Scorer.

Nor did this daily rush always result in accurate scores being posted quickly. A number of small scoring glitches got worked out during the contest. One that persisted had to do with the large worldwide interest in WGC 2003. The primary method of publishing scores was via the contest's website, which on some days recorded more than 200,000 "hits." Pilots and crews at Leszno had to find a computer terminal and compete directly with soaring spectators around the world to see daily results. On a couple of occasions we departed the airfield at 11pm with only an approximate idea of how pilots had scored that day.

Airspace was an issue. Along with most of Europe, Poland has plenty of airspace where gliders are not routinely allowed to fly. For the most part, tasks steered clear of airspace problems, and for much of the contest this worked reasonably well. But the tasks on Day 10 were a different story – closed airspace was scattered around them like a minefield. Five Open Class pilots got caught, including defending World Champion Oscar Goudriaan and Stefano Ghorizo, flying the Italian Eta. It was an unfortunate blemish on a generally smooth-running contest.

Results

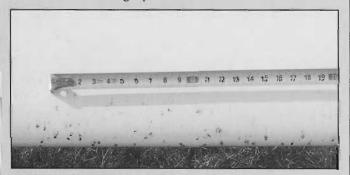
Twelve days of flying in varied and generally fine conditions produced a thoroughly fair test of pilot skill. In the two shortwinged classes, the races were reasonably close. In Standard Class, it quickly became a struggle between former champion Andy Davis of Great Britain and the two young French pilots, defending champion Laurent Aboulin and newcomer Olivier Darroze. Andy gained, lost, and then regained the lead. In the end, he had showed touches of brilliance and more consistency

Bugs and Bugwipers

The bugs at Leszno were especially bad this year, particularly during the early part of the contest. Most pilots decided they had to fight back, and the weapon of choice was a pair of bugwipers.

These are occasionally fiddly devices that spend most of a flight sitting on the leading edges of the wings next to the fuselage. When the bug accumulation looks bad, the pilot operates a reel (the fancy ones are electrically driven) that pays out fishing line and allows the bugwiper to spring open. Airflow then causes it to travel out along the wing. As it moves, it drags a fine wire across the leading edge, which is supposed to remove the accumulated bug bits and restore some semblance of laminar airflow. When the bugwiper has reached the limit of its travel, the pilot reels it back to its closed position next to the fuselage.

The final week of competition featured very dry weather, which Polish bugs apparently find discouraging: Their ranks thinned to the point that in the final few days, some pilots chose to leave the bugwipers home.



This is what 500 bugs per meter looks like.



Behind Gary Ittner, a bugwiper sits in the stowed position, on the leading edge of the wing near to the fuselage.

than his rivals. His daily placings were 7,7,5,3,8,8,18,6,1,7,13,2.

In 15-Meter Class, young John Coutts of New Zealand took a couple of days to hit his stride and then showed what he's made of, with four daily wins. When some of the best pilots in the world are saying "Natural brilliance," "No weakness in his game," and "Could be another Ingo Renner," you know this is a pilot to watch. His daily placings were 11,21,1,1,1,9,2,28,1,13,5,5. Credit should also go to Andreas Allenspach of Switzerland who showed real brilliance at the end (three firsts and a third in the final five days) to take second.

It was a different story in the long-wing classes: in each of these, one pilot simply ran off and left the others wondering what had happened. In 18-Meter class, it was Wolfgang Janowitsch of Austria. He won three days and was only twice out of the top 10. Defending champion Steve Jones and his

Trailer Damage

WGC 2003 was a remarkably safe contest, a reflection of the good weather, excellent landability of the Leszno task area, and the skill of the pilots and contest personnel (notably, the tow pilots and launch crew). The worst damage involved a Swiss ASH-25 making its way home in a trailer after the mass landout day (2 August).

It happened at night. The driver was surprised by a deer in the road, swerved, and both car and trailer wound up inverted in a ditch. (Apparently, the deer ran off without so much as offering to exchange insurance information). The shaken crew was unhurt, and with some effort managed to get both vehicles upright and limp home to Leszno. Amazingly, the glider suffered little more than cosmetic damage, and was on the grid the next morning.

The badly bruised trailer sat forlornly at Leszno until Alfred Spindelberger (Mr. Cobra Trailer) arrived to inspect it. He explained that this sort of thing happens a couple of times a year, and that it should be no problem to beat the trailer into a shape such that it could be transported to the Cobra factory in Germany for a full repair. The next day the "precision Cobra trailer alignment team" (Alfred and a couple of helpers, armed with 5-kg sledgehammers) went to work and in about an hour had the trailer looking if not elegant then at least roadworthy.



The bruised ASH-25 trailer, on its way to the maintenance hangar for re-alignment.



Ania Witek-Crabb was the very able Contest Secretary. Her husband Steve Crabb flew an LS-8 in Standard Class for Ireland; he finished 15th.



U.S. Team Assistant Rick Sheppe made himself quite popular with the young women who ran the snack bar.

brother Phil from Great Britain were obviously flying well, but with several days to go it was clear they were competing for second place: the margin of victory was 459 points, and you're not supposed to be able to do that. Wolfgang's daily placings were 4,11,4,1,6,11,5,5,3,1,1,8.

So what are we to make of the Open Class? Former champion Holger Karow of Germany flew like he was playing a different game from the others. He won three days and only once finished out of the top four. Two-time champion Janusz Centka of Poland was the hometown favorite, and by the end of the contest it was obvious he had figured out how to make the Eta go (over the final 3 days, he was just 2 points shy of a perfect score). Yet at the start of the final day he found himself nearly 500 points behind. He won that day, on which Holger was a "gentlemanly" third. But the issue had long been decided. The winner's daily placings were 3,3,1,4,11,1,2,1,3,3,3,3.

The Eta

Most soaring pilots have heard of the Eta. It is a "superglider" - a two-place motorglider with a 101' wingspan, and measured best glide performance of 70:1. It has been built by a consortium - five Etas are planned (three are now flying) and there is the possibility that more might be built if buyers can be found. Price is certainly an issue - the cost of each of the first five has reportedly long since exceeded \$1 million each. Two of these (HW, owned by Hans-Werner Grosse of Germany and X33, owned by Umberto Mantica of Italy) flew in the Open Class at WGC 2003.

They attracted a lot of attention. They self-launch, using a popup propeller mast rather similar to that in the Nimbus 4DM (the engine stays buried in the fuselage, the exhaust tilts upward). The wing runner is a long way from the pilot, but he usually doesn't have to work hard - a vast expanse of flaperon gives roll control at low speeds. As the Eta gathers speed, the wings begin to flex upward. When the mainwheel hits a bump it generates waves that are visible as they travel along the thin wing. The upward flex continues to an almost alarming extent, at which point the fuse-

lage pops off the ground and the glider flies away. A good show. Landing is often better. The Eta has two divebrakes in each wing that reportedly do a good job of glidepath control. When they are deployed, the outer wings must generate more lift, which increases the wing flex noticeably — the tips appear to be ten to twelve feet above the fuselage. The Eta looks as if it wouldn't have much trouble landing in reasonably tall crops - the wings are still flexed upward until it slows to near walking speed.

Some controversy surrounded the Etas at WGC 2003. One matter was weight. Because of their huge wings, open-class gliders generally want more of this, yet they have long been limited to 750kg. At WGC 2001 in South Africa, a new rule went into effect whereby 2-place self-launching motorgliders could fly at 850kg, provided they used no waterballast. This was controversial, as it meant that a certain few gliders could fly far heavier than most.

Most people assumed that the 850kg rule would apply at The Eta in flight is a grand sight. WGC 2003, but this limit had been removed — a 2-place motorglider could fly at its certified weight. For HW, this was 920kg - just over 2000 lbs. X33 is the newest Eta and much trouble was taken to keep its

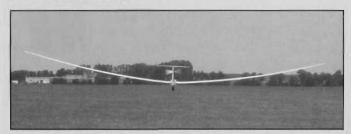
weight down to 850kg with two pilots aboard (it wasn't clear why, since there is no longer an 850kg limit).

The general consensus seemed to be that these huge beasts did quite well in the glide, but may be slightly disadvantaged in thermals, especially small or hard-to-center thermals. Janusz Centka seemed to be learning how to make HW go better toward the end of the contest (though part of that may have been the strong weather — just what a heavy glider needs). In the end, one Eta (HW) finished second; the other (X33) flew well but got zapped for an airspace violation and wound up 8th. Both watched Holger Karow dominate the Open Class in his "old technology" Nimbus 4.

Another controversy concerned Hans-Werner Grosse and his desire to fly in the back seat of his Eta behind Janusz Centka (the pilot of record). Apparently, Hans-Werner got a verbal okay for this from the IGC, and made plans accordingly. Unfortunately, the IGC rules are clear: in a 2-place glider, both pilots must be of the same nationality. Hans-Werner made an eloquent plea at the pre-contest Team Captains' meeting to be allowed to fly (he is a far better speaker in his second language than most people are in their mother tongue). Had the decision lay with the Team Captains, there is little doubt he would have prevailed. But this unfortunately is a rule that only the IGC can change, and not on short notice. Hans-Werner was thus a spectator at Leszno.

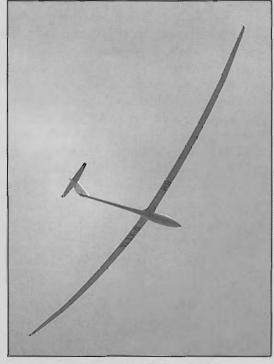


The Eta starts its takeoff roll.



The wings flex and the fuselage tries to keep up.





The Eta from below. Photo by Gary Ittner.

The last time a World Championship contest was held at Leszno was 1968. A.J. Smith of the USA made a great flight on the final day to become World Champion. Unfortunately, history did not repeat itself 35 years later. In Standard Class, Tom Beltz (flying an ASW-28) was returning to World competition after a long layoff. By the end of the contest he had obviously regained much of his old form: he finished in 9th place, up

Team Flying

This is a popular topic at every World Gliding Championship. What is the right way for two (or more) pilots to cooperate? What combination of technique and experience is needed? What improvement in scores can be achieved? What should be the role of this at a world-level contest?

The International Gliding Commission has been discussing team flying and its implications for quite some time. There seems to be a loose consensus that the role of this in selecting champions should be reduced, yet few strong measures have been taken so far. At Leszno, the two long-wing classes allowed only one pilot per country to enter, which obviously reduces opportunities for team flying. Yet a rather large loophole exists: in every class the current World Champion receives a special invitation to defend his title. As a result, two teams (of brothers) were competing: Oscar and Laurens Goudriaan of South Africa in Open Class, and Steve and Phil Jones of Great Britain in 18-Meter Class.

In the end, only one champion made use of team flying. In Standard Class, Andy Davis and Mike Young of Great Britain consistently started within seconds of each other through much of the contest (though they only occasionally finished together). When Andy regained the overall lead on Day 9, their tactics shifted a bit: Mike would start a few minutes ahead, presumably to scout the conditions. On the final day, he started more than 20 minutes ahead – but at exactly the same time as the two French pilots, the only ones with any hope (and it was a slim hope) of overtaking Andy in the final standings. All worked well for the Brits, and Andy Davis is the 2003 World Standard Class champion.

In none of the other classes did the winner have a teammate. Some teams did well: in 18-Meter Class the Jones Boys finished 2nd and 3rd, as did Olivier Darroze and Laurent Aboulin of France in Standard Class. But since each of these teams included a defending World Champion, it's safe to say that while they were probably pleased, they were not fully satisfied. Other teams (for example, the three Germans in 15-Meter Class) had some good results and some problem days.

The consensus among pilots is that for consistent success, teammates need to start at the same time and stick close together for as long as possible (even to the point of one pilot waiting at the top of a thermal while the other catches up). To do this well demands lots of practice; pilots who try to do this in a contest without 50-100 (or more) hours of experience flying together are not likely to see consistent benefits – indeed, they may wind up with lower scores than if they flew on their own.



Tilo and Katja Holighaus relax at the farewell party. With three of four winners and more than half of the top-10 pilots flying Schempp-Hirth gliders, Tilo had to be pleased with the results of WGC 2003.

from 16th with 3 days to go. Chip Garner (flying a Discus 2a) flirted with a "single digit" finish, but found some final glide difficulties on the final days, and wound up 13th.

In 15-Meter Class, both Karl Striedieck (ASW-27) and Dave Mockler (Ventus 2ax) had a number of good days: Karl had the only daily first for the U.S. Team, sharing 1000 points on Day 6 with Werner Meuser of Germany. Dave got one daily second and one third, both at speeds close to 130 kph. But each also had some tough days: Karl landed early on Day 7, and Dave twice got badly slowed on his final leg. The result was 17th place for Dave and 27th for Karl.

In 18-Meter Class, Gary Ittner was in a brand new Ventus 2cx, and looking to continue the good flying he did at WGC 2001 in South Africa, where he finished 4th. But he had a serious problem the first day: lift before the start was scarce and he headed south of Leszno toward some clouds that looked promising. These proved to be out of reach, and when he turned for





Preparing to assemble three U.S. Team gliders: VW-Karl Streidieck's ASW-27 (loaned by Gerhard Waibel); CG-Chip Garner's brand-new Discus 2a; PV-Tom Beltz's ASW-28 (loaned by Schleicher).



Competition Director Jacek Dankowski (left) congratulates Ron Tabery at the Closing Ceremony. Jacek presided over the largest and safest World Gliding Competition in history.

home, so did the airfield. The result was a landing prior to the start - a very tough way to begin a competition. He followed this with some good daily results, but also suffered a landout on Day 5. The result was a 17th place finish.



18-Meter Class pilot Wolfgang Janowitsch of Austria (1st).

In Open Class, Ron Tabery (flying a Nimbus 4) turned in the best U.S. Team result. He won no days, but had a very respectable number of top-5 finishes, and neatly avoided the problems (such as airspace incursions) that sunk some of his fellow long-wingers. He wound up fifth, among the elite group with a total score of more than 10,000 points.

Acknowledgements

Many thanks to the many people and organizations that supported the U.S. Team. Here are just a few that deserve credit:

Alexander Schleicher Sailplanes Atlas Air Dianne Black-Nixon

ERA Mobile Phones

Don Pollard

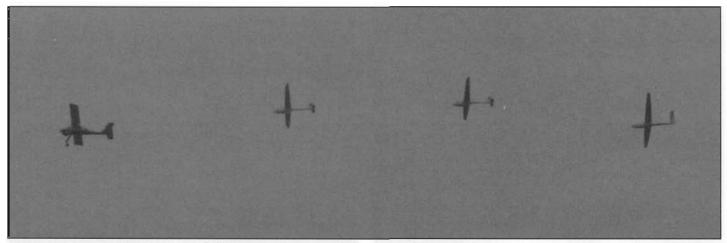
Schempp-Hirth Sailplanes

Bill Feldbaumer

Noreen Buchanan South African Brewing Co. Henry Retting John Seymour

Photo Spread Below: This composite photo shows the glider parking area at Leszno. Photo by Rick Sheppe.





Triple tow into a grey sky: A Wilga, two PW-5's and a Jantar practice for the opening-day airshow.



15-Meter Class pilots John Coutts (left, 1st place) and Andreas Allenspach (2nd).

SUISSE

Open Class pilots Holger Karow (left, 1st place) and Janusz Centka (2nd).

2003 World Gliding Championships



POLAND



About the author: John Good has been flying gliders since 1980. His current glider is a Discus 2a and he has approximately 1500 hours and holds a Commercial Glider rating. John instructed for several years and has served as Director from Region 1 and Chairman of the Contest Committee. John is now the Associate Editor for Soaring Magazine.



Twelve Wilgas (above) and six turbine-powered Cmelak tow planes (inset) put on a show every day. Below, a sunset at the Lesszno airfield.





Stand	lard Class				
1	80	Davis Andy	Great Britain	Discus 2a	10421
2	EF	Darroze Olivier	France	Discus 2a	10057
3	A5	Aboulin Laurent	France	Discus 2a	10014
4	JB	Suchanek Tomas	Czech Republic	LS-8b	9842
5	M	Ichikawa Makoto		LS-8	9769
5	AK	Kiessling Mario	Japan	Discus 2a	9757
	2	Flewett Ben	Germany New Zealand	Discus 2	9687
7	PC	Hartmann Peter	Austria	LS-8	
8 9	PV	Beltz Tom		ASW-28	9656
			USA		9649
10	LOT	Rubaj Tomasz	Poland	LS-8	9619
13	CG	Garner Chip	USA	Discus 2a	9471
15-M	leter Class				
1	47	Coutts John	New Zealand	ASW-27b	10347
2	PS	Allenspach Andreas	Switzerland	ASW-27	10199
3	V8	Gulyas Gyorgy	Hungary	Ventus 2a	10044
4	DW	Watt David	Great Britain	Ventus 2a	9940
5	HP	Grund Michael	Germany	Ventus 2bxr	9825
6	IIR	Jonker Adriaan	South Africa	ASW-27	9825
7	8X	Eriksson Borje	Sweden	Ventus 2a	9812
8	WM	Meuser Werner	Germany	Ventus 2ax	9778
9	AG	Pedersen Jan	Denmark	ASW-27b	9753
10	GT	Avanzini Luciano	Italy	Ventus 2ax	9655
17	VV	Mockler Dave	USA	Ventus 2ax Ventus 2ax	9223
27	VW	Striedieck Karl	USA	ASW-27	8746
2/	V W	Striedieck Mari	OSA	A3 W-2/	0/40
18-M	Ieter Class				
1	WO	Janowitsch Wolfgang	Austria	Ventus 2cx	10594
2	250	Jones Stephen	Great Britain	Ventus 2cxt	10135
3	210	Jones Philip	Great Britain	Ventus 2cxt	9978
4	EP	Henry Francois-Louis	France	Ventus 2c	9873
5	RB	Brigliadori Riccardo	Italy	LAK-17	9818
6	GR	Rossier Gabriel	Switzerland	DG-800s	9794
7	XT	Termaat Ronald	Netherlands	Ventus 2cxt	9740
8	MZ	Breidahl Henrik	Denmark	LAK-17a	9655
9	IK	Krejcirik Petr	Czech Republic	Ventus 2cxt	9625
10	IAB	Wujczak Stanislaw	Poland	LS-6-18	9588
17	ZQ	Ittner Gary	USA	Ventus 2cx	8533
Once	· Class				
Opei	n Class —	Karow Holger	Germany	Nimbus 4m	11323
2	HW	Centka Janusz	Poland	Eta	10891
3	EC	Lherm Gerard	France	Nimbus 4t	
					10775
4	N1	Harvey Peter	Great Britain	Nimbus 4t	10653
5	YY	Tabery Ron	USA	Nimbus 4t	10365
6	PI	Kozar Jozef	Slovak Republic	Nimbus 4dm	9976
7	A	Andersen Jan	Denmark	Nimbus 4t	9966
8	X33	Ghiorzo Stefano	Italy	Eta	9899
9	НМ	Goudriaan Laurens	South Africa	ASW-22ble	9794
10	AS	Goudriaan Oscar	South Africa	ASW-22ble	9607

For complete results, see the WGC 2003 website: www.wgc2003.pl
For detailed U.S. Team coverage including daily reports, see the U.S. Team section of the SSA website: www.ssa.org