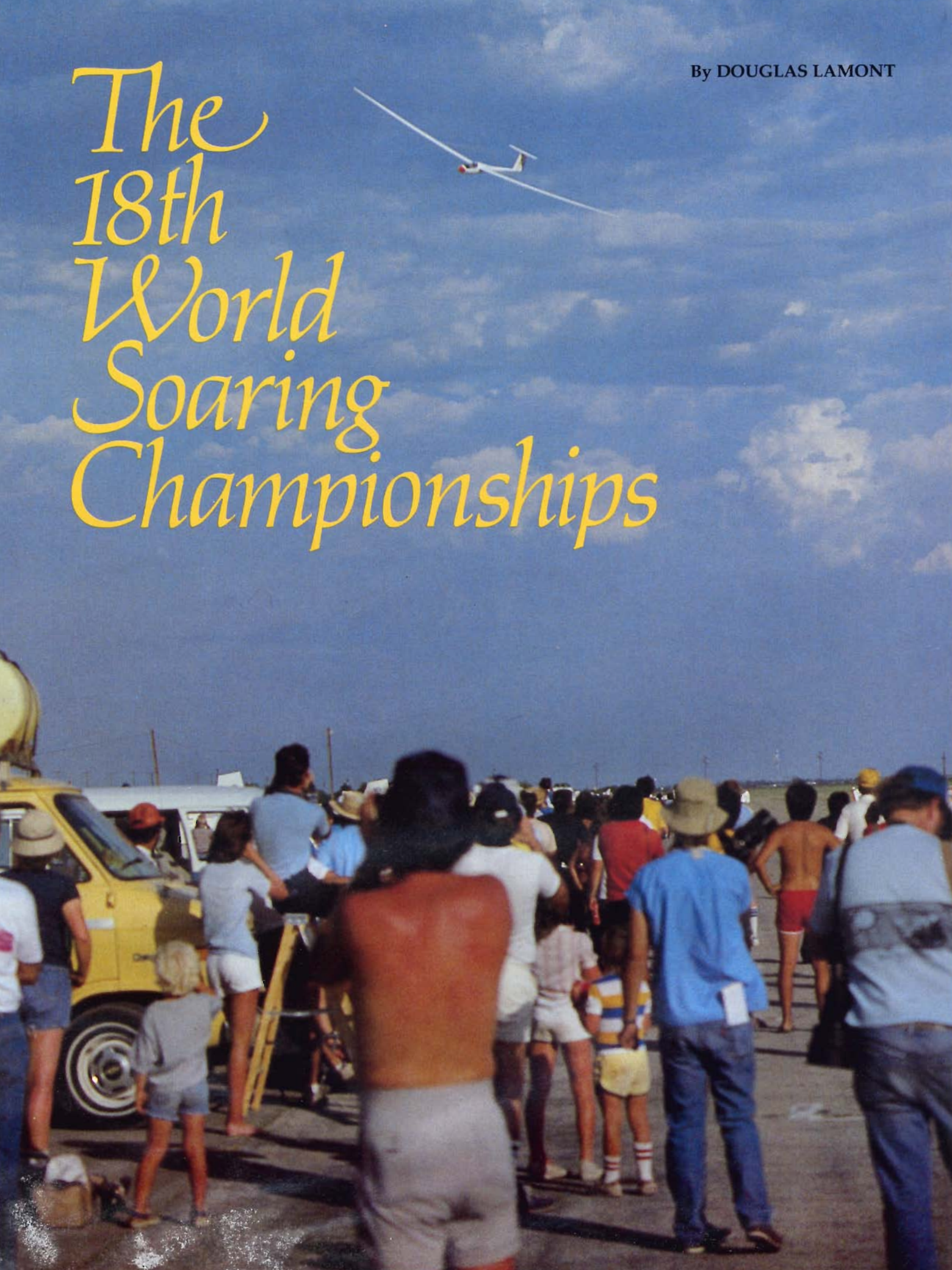
The 18th World Soaring Championships

By DOUGLAS LAMONT



A superb field of contestants, an astonishing performance by Ingo Renner, exceptional soaring conditions . . . in all, the best Internationals so far!

Dick Huppertz

It is unlikely that any world soaring champion ever beat a better field by a bigger margin than Ingo Renner did in winning the Open title.

On the fifth practice day of the 18th World Soaring Championships, Hideaki Inamori intently studied the ground below his AS-W 19. Since his departure from Hobbs Industrial Airpark, New Mexico, he had been soaring on the 050° course prescribed on the day's Standard Class task sheet. Conditions had been very good during the practice tasks, and, like the 108 other contestants, Inamori had been pleased by the high airspeeds and flight altitudes he had been able to achieve.

But his euphoria was giving way to increasing uneasiness. Lacking checkpoints, he used dead reckoning to determine his estimated time of arrival at Littlefield, the first turnpoint. The E.T.A. had come and gone—but not Littlefield.

At home in Japan, he would have had major landmarks to help him triangulate on his goal. In New Mexico a high plain stretched away toward all quadrants, a faceless tableland with desiccated vegetation, narrow dirt roads to isolated oil wells, occasional ranches and squares of dry farmland.

Where was that turnpoint?

When minutes stretched beyond the hour mark, Inamori, who had steadfastly maintained his heading, knew he had been deceived by the inscrutable terrain. Low altitude, fatigue and the appearance of a small bulldozed strip prompted him to radio to his crew. He was landing out—75 miles beyond the turnpoint!

As he sat after rollout quietly considering the events that had transpired, he heard galloping hoofbeats. Looking up, he found himself confronting two dusty, sweat-stained cowboys who had been rounding up strays in the mesquite. The horsemen turned out to be white-hat, good-guy types and took Inamori (a Japanese restaurateur) to their ranch house for a mess of range-style cooking, and eventually brought him and his crew together again.

* * *

During the five practice days preceding the opening of the Championships, the skies above the contest area were as friendly as the cowpokes. Most contestants flew the complete program of familiarization race tasks set for them by the Competition Director, Judge Hal Lattimore. These were triangular courses ranging from 131 to 287 miles. Speeds as high as 100 mph were reached, with the convective layer ranging from 8000 to 14,000 feet. It looked as if the weather for the 18th World Championships would be a piece of cake. . . .

* * *

At the Opening Ceremonies on Sunday, June 26, a strong 25–30 knot wind gusted across Hobbs Industrial Airpark but failed to dampen the festive spirit of the occasion. Dignitaries offering greetings ran the gamut from city councilman to governor of the state; even a felicitous message from The President of the United States was received. The easy informality contrasted with the panoply of past world championships openings. Nevertheless, flag raisings by the 26 teams and release of hundreds of colorful balloons into a clear blue sky were memorable and moving sights. Square dancing, a recorded military band, the routines of a young patriotic singing group and the applause accorded the teams as they marched to raise their flags could not be deterred by the blustery winds. Spirits were high.

Ake Pettersson of Sweden flies his Nimbus 3 *over the heads of visitors during practice for the 18th World Soaring Championships.*

Steve Zimmerman

DAY 1, JUNE 27

OPEN CLASS: Post - Jal - Hobbs: 285.3 mi./460.1 km.

15-METER CLASS: Littlefield - Jal - Hobbs: 268.6 mi./433.2 km.

STANDARD CLASS: Morton - Andrews - Hobbs: 218.8 mi./352.9 km.

Unlike the flat, characterless landscape, the weatherscape was another matter. After having provided a practice week of superb conditions, it chose to exhibit a mischievous side on the opening contest day. Staging 109 gliders on a launch grid is no small task. When this had been completed, the surface wind veered so as to require the entire field to be reversed. The process lost an hour—a loss that would prove disastrous for many. Standard Class launched first, and Finland's Jarmo Forssten in his LS-4 was one of the first pilots to be airborne. The new "silent start" system permits the pilot to climb as high as he can before photographing a ground clock to document his start time. He no longer has to announce his start run before diving through a 3000-foot-high "gate," as in the past.

The consensus of on-the-field contest-pilot wisdom held that everyone was going to scratch for every last foot of altitude before taking the required start photo of the cursor clock (an elaborate system of changing panel patterns on the ground). So it is understandable that the Finnish crew, observing Forssten's relatively low departure altitude, were puzzled to see him apparently throwing away altitude "money in the bank." Their pilot had his reasons:

"I knew I would have a good tailwind pushing me along the 72-mile course to the first turnpoint at Morton. Lifting clouds above start remained unmoving over the field, but I thought it would be wise to get out on course as soon as possible.

"Compared to practice week, lift was not very strong on the first leg—maybe one or two meters. However, there were good cu's near Morton when I arrived there with 1500 meters still on the altimeter. The vario went to five m/s under the cloud.

"The second leg (97 miles south to Andrews) proved easy, though there was rain and hail—the clouds had arrived to help me. About 60 miles along the leg, I detoured a little to the west near Seminole because of hail. I could see the wind was very strong on the surface at this time. At Andrews, the second turnpoint, I knew I would need altitude to fly into the wind for the 49 miles remaining on the final leg back to Hobbs. So I was happy to work a three-meter thermal from 1500 to 2400 meters above the turnpoint."

The flight back was uneventful. When Forssten got within sight of the runway, his spirits rose further when he could find no earlier finishers on the ground. First out, first back! And (as the scoreboard later showed) 1st place at 103.5 kph.

* * *

By the time Ingo Renner snapped his start photo at 13,000 feet and set the nose of his *Nimbus 3* for Post, 112 miles away across the border in Texas, he was unable to take advantage of the situation that Forssten had exploited: "I left an hour later at 3:00 p.m. and had a bad run," Renner recalled. "On the first leg I could find only four knots or less. There were a few high altocumulus, but they seemed to have no connection with the thermals below. However, I was able to climb toward the end of the run and reached a reasonable height."

Renner found his best thermal of the day shortly after turning Post and climbed to 15,000 feet. "It was a 10-knot thermal that gave me a good

Dick Huppertz

If they're not flying, they're getting ready to: crew attends LS-4 C6 of Italian Roberto Monti.

PERFORMANCE STATISTICS

The '83 World Soaring Championships were like three super-nationals rolled into one—a triple-feature extravaganza featuring the finest talent anywhere. Statistics can't tell the whole story, but the numbers are impressive:

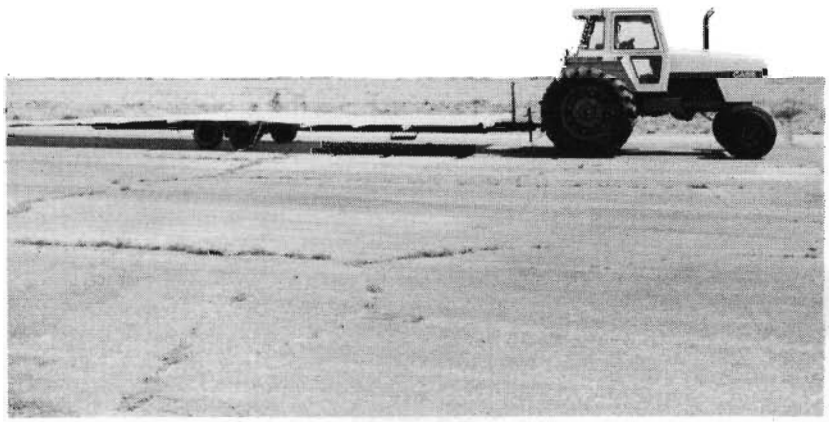
	Open	15-Meter	Standard
Longest task:	407.9 mi.	378.2 mi.	347.6 mi.
Average task:	330.1 mi.	302.4 mi.	282.6 mi.
Highest speed:	110.4 mph	102.1 mph	92.6 mph
Average speed:	83.3 mph	76.0 mph	71.3 mph
Tasks completed:	90%	81%	89%

Hobbs was a panoply of flags, brilliant skies and excited visitors who saw a great contest.


Sharon Austin

Cindy Brickner

Sharon Austin



Sharon Austin

A LOOK AT THE "SILENT START" CLOCK—*Diving at high speed through a low "gate" to start a race may soon be a thing of the past. At the 18th World Soaring Championships a new approach was tried, and it worked well. By using a ground clock which the pilot can photograph with his turnpoint camera, he can document his start time accurately without radio transmission, from any altitude he chooses, and no loss of height or excess speed is involved. The photos above show how it is done. At the top, Doug Stogner of Hobbs has one of the seven 10-by-50-foot movable fabric panels almost open. It slides along guy wires which hold its shape. Each panel has a 10-foot-square fixed section at each end, so that the open panel is 60 feet long and photographable from 12,000 feet or more. The "second hand" of the clock is a moving cursor, which at Hobbs was mounted on a large tractor and towed around the perimeter of the cloth panels by a tractor traveling at a rigidly controlled speed. Opening and closing of the cloth panels in an exact sequence (the position of one panel is changed every four minutes when the moving cursor passes the timing marks at each end of the row of panels), together with the position of the cursor panel itself as shown on the start photo, can time the photo to within 15 seconds over a period of 4 hours 16 minutes.*

push into the wind and maybe a little lead over the other competitors."

Ingo's climb was followed by a straight glide along course that brought him down to within 3000 feet of the surface before he found new lift. "There was nothing much to talk about after that," Ingo says. "From then on I found regularly spaced six-knot thermals that carried me around the Jal turn and on home to Hobbs."

Renner's 118.8 kph speed gave him the first of many 1000-point days to follow. He was in the lead to stay.

* * *

Jarmo Forssten and Ingo Renner finished their tasks faster than any other pilot in their classes, so it was not unusual that the field was relatively uncrowded at their return. As the afternoon faded into twilight, the area remained strangely quiet. The weather's mischief had shut out eight Open Class and 28 Standard Class contestants—and the entire 48 pilots of the 15-Meter Class!

The Netherlands' Kees Musters had the distinction of flying farthest (236 miles) around the 269 miles tasked for the 15-Meter Class. He was the only pilot in his class to make the second turnpoint at Jal. There was true grit in the tiny *Ventus A* cockpit: Musters remembered making the turn at 500 meters, leaning into a dry thermal, with dust rising from the surface into the sailplane's cockpit.

DAY 2, JUNE 28

OPEN CLASS: Pecos - Midland - Hobbs: 272.0 mi./438.7 km.
15-METER CLASS: Pecos - Andrews - Hobbs: 233.0 mi./375.7 km.
STANDARD CLASS: Wink - Midland - Hobbs: 217.0 mi./349.9 km.

The cloud which had hovered above the airport the first day was recognized by some as wave-associated, but none reached the lift above it. The second day, however, pilots climbed above cloudbase to considerable altitudes. "I reached 17,500 feet," said Ingo Renner, "and I saw several others just as high."

During the night, a weak cold front passed through the contest area, slowed, and came to a halt near the Big Bend region of Texas. The result was a cool, high-pressure dome over Hobbs, a necessary ingredient for the formation of another wave the second day.

Ingo was at 16,000 feet when he left the field after shooting the start clock at 2:45 p.m.

"The wave carried me above the convective layer. The only lift after that was in a few weak wave areas I crossed gliding toward Pecos, 97 miles

south. Eventually, I sank into the convective band and out of reach of wave lift for the rest of the day. I flew thermals from then on. Eighty per cent were blue, except for a beautiful cloudstreet on the third leg that took the *Nimbus* and me home." Ingo was fastest for the day with a speed of 142.8 kph. His cumulative score after two days rose to 2000 points.

* * *

At launch time, U.S. 15-Meter Class pilot Ray Gimmey pulled his AS-W 20B to the end of the start line. He felt better weather was developing and elected a later takeoff.

"There wasn't much happening on the first leg until I worked a really rough five-knotter for 3000 feet west of Jal and used the boost to reach 15 miles north of the Pecos turn. I was low there. The Opens were turning Pecos, too, and Moffat called to tell me that there was lift over the airport. I scrambled in but was too late to find a damn thing. I snapped my picture at 4200 feet and moved along to a three-knot thermal where I started working. Then I saw a gaggle six miles farther circling way up high. I was tempted to go on, but I said to myself, 'No, I won't do that. I haven't room for an error. If I don't get back up, I'll have to land.' I was getting uptight."

Ray clung to his lift until he got high enough to risk recentering. He was rewarded with a seven-knot ride to 11,000 feet which enabled him to catch Karl Striedieck (who had started 15 minutes earlier) and pass him. "Then things slowed down. I began getting heavy sink everywhere I went. Karl got above me and beat me home by three minutes."

Elapsed time is what counts, of course. The scoreboard showed that Gimmey had posted a speed of 125.2 kph—enough to put him at the top of the 15-Meters for the day.

* * *

The name at the top of the Standard Class list belonged to John Buchanan of Australia who flew his LS-4 around a 217.4-mile triangle at 114.3 kph. John, too, used the wave at the start, reaching 15,500 feet before leaving on course at 14,000 feet. Australian weather also produces energies equivalent to Hobbs, and John measured the day accordingly.

"It was rubbish with a crosswind besides. I just sort of held it back and glided and glided. I was out of the wave in the first 10 miles and used only three broken thermals on the 68 miles to Wink. There was a good eight-knot thermal at Wink, but then, again, rubbish all the way to the second turn at Midland."

Fifteen miles from the finish line a cloudstreet provided a five-mile staircase to altitude for a final 10-mile glide home to 1000 points, and the feeling of encouragement that comes with an early win.

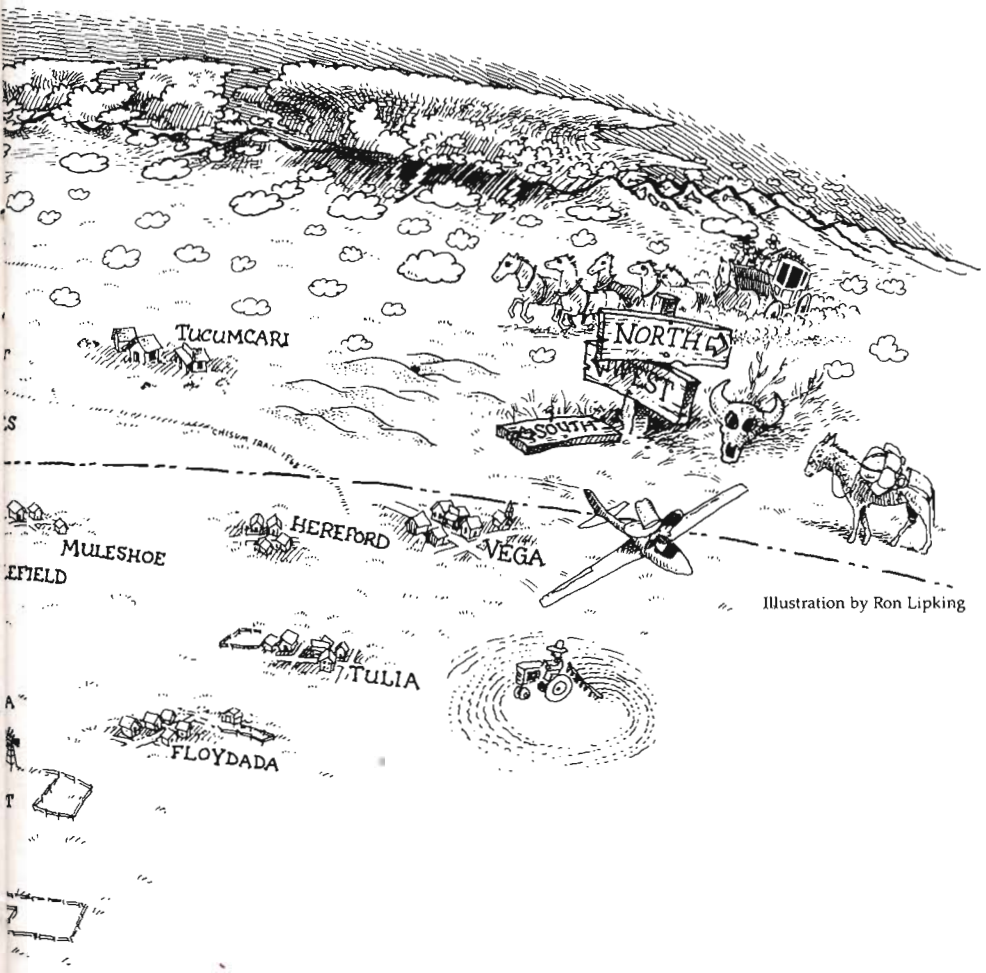


Illustration by Ron Lipking

TALE OF THE TOWS

Fourteen tow pilots towed 1845 launches at the Hobbs contest and burned 6000 gallons of fuel to do it. The "most tows" contest was won by Dave Young in a Cessna 185—he made 170 launches. Chief tow pilot Vince Hinds notes that hauling a ton and a half of glider to 3000 feet takes a firewalled towplane: "If they groan some, they're entitled." And he notes that a little environmental alteration did take place: "There are 20 towropes hanging on fences at known locations, and another 25 out there we don't know where. But look at it this way: those ropes aren't pollution—they're Hobbs' new cash crop!"

DAY 3, JUNE 29

OPEN CLASS: Midland - Snyder - Hobbs: 294.5 mi./475.0 km.
15-METER CLASS: Jal - Big Spring — Hobbs: 253.8 mi./409.3 km.
STANDARD CLASS: Midland - Big Spring - Hobbs: 234.0 mi./337.4 km.

Forecasters Bruce Carter, Walt Rogers and Boyd White were pilot allies in their adversary relationship with the weather. The meteorologists served as intelligence agents, wresting secrets from the three main "opponents": the warm dry air of the Sonoran Desert and southwestern U.S.; the humid tropical flow from the Gulf of Mexico that moves surreptitiously across Texas to Hobbs; and the cool airs that roll in from the northwest. These three air masses are mesoscale atmospheric forces that blanket thousands of square miles as they push and shove for ascendancy above the contest area. Because of their magnitude, the rate of change in weather situations is measured in hours or even days.

Thunderstorms, however, are wild cards in the weather deck, upstarts who can wreak havoc in minutes. On the third contest day, a cell in the southeast section of the task areas suddenly erupted among a field of cumulus. In 45 minutes it reached 55,000 feet and began broadcasting its anvil cloud plume over the countryside. Pilots reported spotting it almost from the moment of launch:

"I think this storm proved to be the limiting factor for the day," said Ingo Renner. "When we were thermaling up during the start, we could see the cloud buildup in the southeast part of the task area. I decided to leave early at 1:00 p.m. because of this. I knew that the earlier I could get away, the less developed the storm would be when I got to the area. The further the development, the less the chance for completion of the task.

"It turned out that way, in fact. We early starters got to the storm at a stage when we had to take only a little rain on our wings. We were able to fly and complete the course on track."

Ingo's 98.2 mph speed was fastest and raised his cumulative standing to 3000 points. Classic competition strategy dictated that he nurse his lead rather than press on and take risks. No one knew for sure what he would do.

* * *

For defending World Champion George Lee, as well as teammate Bernard Fitchett and Finland's Matias Viitanen, the thunderstorm proved disastrous. All three were forced down by the cell.

The blow to the U.K. team by the outlandings of Lee and Fitchett was somewhat softened by the victory of their Standard Class pilot, Andy Davis (LS-4). Prior to the flight Andy had consulted with Lynn, his wife, and coach of sorts.

"Lynn always tells me how fast I've got to fly. She was real cross with me the first day when I pushed too fast and had to land after she had warned me to fly steady. This time she asked, 'How long do you think it will take?' I answered, 'Three hours.' So I made it in 2 hours and 42." Andy's one-upmanship gave him a win and an average speed of 86.61 mph.

* * *

The thunderstorm was a help to New Zealand's Tony Timmermans, 15-Meter pilot. "It was a fabulous day," he recounted. "I flew the *Ventus* 44 miles to the Jal turnpoint without

1983 WORLD SOARING CHAMPIONS

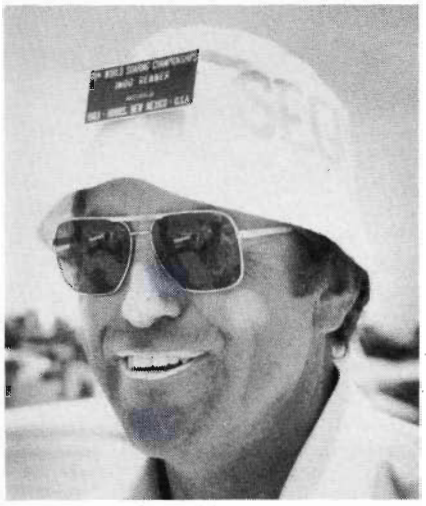
STANDARD CLASS

Stig Oye

Tom Beltz

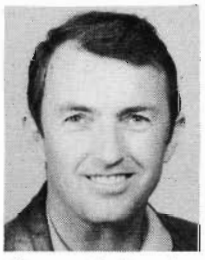
John Buchanan

OPEN CLASS



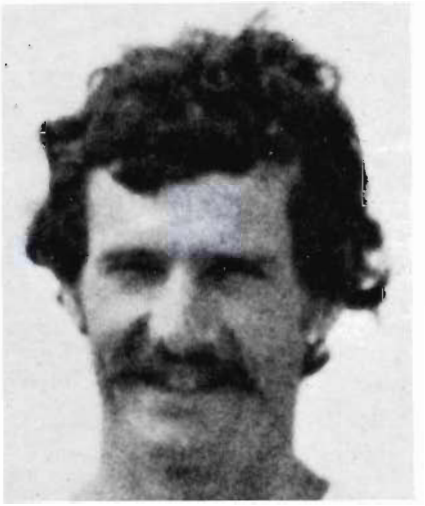
Ingo Renner

Bruno Gantenbrink



Francois-Louis Henry

15-METER CLASS



Kees Musters

Karl Striedieck

Laurens Goudriaan

thermaling and then got a thermal with a 12-knot achieved rate of climb!"

He met the notorious thunderstorm halfway along the second leg. "You could see it raining, and there was quite a bit of lightning as well; it was sizzling, actually. It was in just the right position to run along the leading edge. I got about three or four knots of lift, which is not much, but you retain altitude that way and can take advantage of it. I used it for 10 km into the second turn and another 10 getting out. On the way home, I used a happy little thermal to lift me out of the overcast area, and a little later one more that enabled me to make a final 120-km glide all the way home."

The storm may have helped Tony to set the fastest 15-Meter speed of the Championships—164.7 kph (100.2 mph)! Thunderstorms are like the Lord, noted one observer. They giveth and they taketh away.

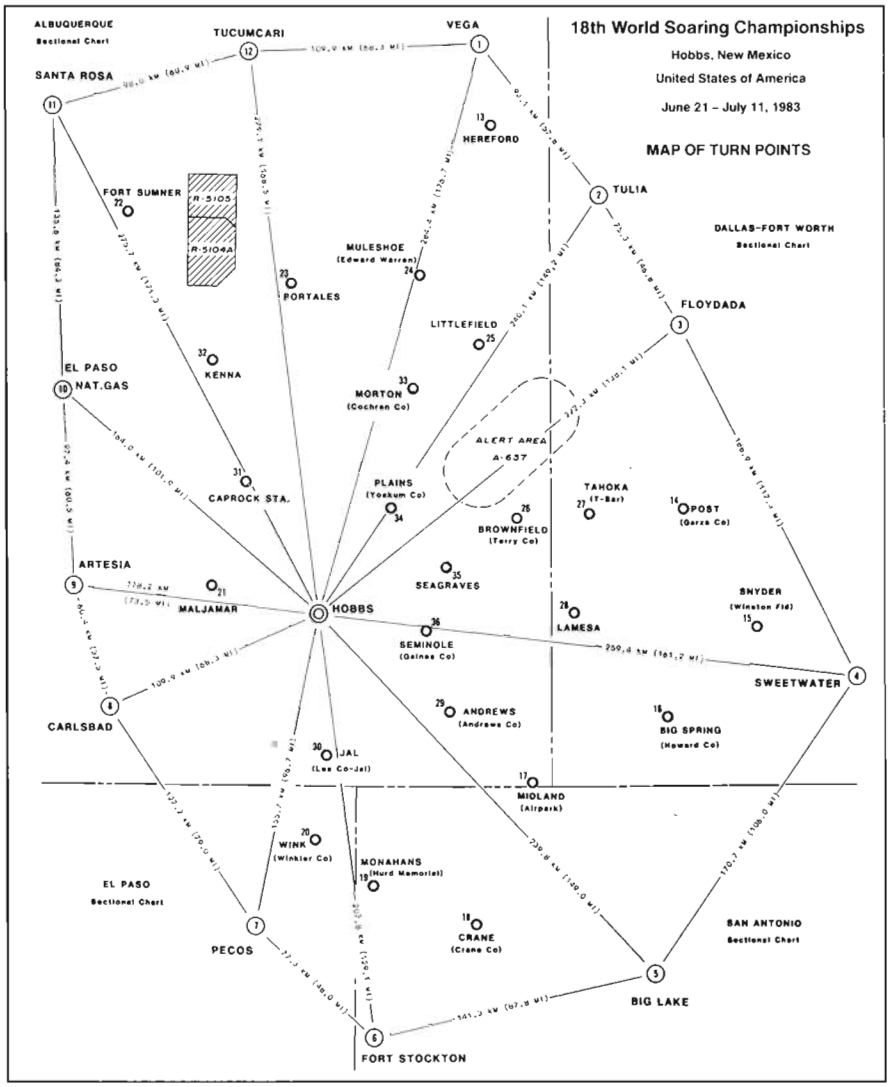
OSTIV CONGRESS SESSIONS

Soaring has always been a sport with technical leanings—which is why it has progressed so far. Being inquisitive about how to achieve the highest performance while using only the energy of the atmosphere has developed close contact between pilots, aerodynamicists and meteorologists over many years. This close relationship formalized itself in 1932 in Germany with a new organization called ISTUS (*Internationale Studienkommission für den Motorlosen Flug*) under the leadership of Professor Georgii. ISTUS eventually became the new gliding committee of FAI and changed its name to CIVV.

Since then, the Technical Congresses of the OSTIV have been held at the same time and place as each World Championships, and, as glider pilots roam the world in search of finer soaring and more challenging conditions and competitions, they have done so secure in the knowledge that OSTIV with its technical support has been there all the way.

Papers this year included 23 in the Technical sessions, 12 in the Scientific sessions, and 4 in the Special Subjects sessions (medical). Time lapse films were shown of the classic Sierra Nevada Wave and the ALPEX expedition. An exciting paper examined a "flight plan" for a 2000-mile flight lasting nine hours across much of the U.S. And what about a design study for a 95:1 sailplane? It is just as possible as the jump between 30:1 and 50:1 in the last 20 years or so—except that now it shouldn't take so long.

—ANN WELCH



DAY 4, JUNE 30

OPEN CLASS: Hereford - Caprock Station - Hobbs: 324.1 mi./522.8 km.

15-METER CLASS: Wink - Kenna - Hobbs: 295.4 mi./476.5 km.

STANDARD CLASS: Andrews - Portales - Hobbs: 284.2 mi./458.4 km.

"Never in my career have I flown such a marvelous day!"

So spoke Bruno Gantenbrink as he stepped out of the cockpit of his *Nimbus 3* at the end of the fourth Open Class race. His words are the best measure of the day and were echoed by pilot after pilot. At launch time, even a casual field spectator didn't need to be told that the day was something special. The sky was a deeper blue, the floating cu's whiter, more dazzling, nicely-spaced, higher-bottomed, and full-bodied without threatening overdevelopment.

On the start grid, the eagerness to be airborne was a palpable thing. One might have supposed George Lee would have been particularly keyed up after the cruel treatment of Day 3. However, he professed that such happenings are all part of the sport. "I fly as well as I can all the time," he said, ". . . one day at a time."

Lee's spirits must have risen as he was setting out in the *Nimbus 3* along the 153-mile leg to the Hereford turnpoint. "I was lucky enough, after photographing the start clock, to line up a decent climb and top off with an altitude that gave me the ability to have a good first leg. Rain showers were fall-

Dick Huppertz

Dick Huppertz

Above: George Moffat (foreground) and Goran Ax prepare to launch. At left is the U.S. team during opening ceremony.

ing here and there, but they weren't severe and I meandered between them. With the very high cloudbase of 16–16,500 feet, and the slight tailwind, it made the first leg very exhilarating.

"On the second leg, a 127-mile run to Caprock Station, cloudstreet alignment wasn't as helpful, and some rain showers were a little trouble to get around. Still, the conditions were marvelous for soaring."

The leg home was relatively short—44 miles. Near the turn at Caprock Station he got a good short climb, enough to make the glide home. He commented about final glides:

"With the enormous variations of lift and sink that we have been getting here, I find it is very difficult to make credible final glide calculations. You think you're fat with height and suddenly hit stretches of really heavy sink which can easily wipe out your margin. Or it can go the other way, and you end up with too much height. You have to watch the route coming home very carefully."

It is notable that Lee stopped for only four or five thermals in the whole flight, and never got lower than 10,000 feet. "It was certainly the most marvelous soaring weather I have ever experienced!" he says.

Marvelous, certainly, that his speed of 178.1 kph (110.4 mph) was the fastest ever flown in a world championships!

* * *

With all due respect to George Lee's brilliant flight, observers pointed out an important qualifier: The new launching system gave this year's contestants the equivalent of a couple of free thermals at the start. Instead of being limited to a 3000-ft. starting altitude, the pilot can start at the highest altitude he can reach. Altitudes of more than 15,000 feet were not uncommon at Hobbs. The bonus advantage over the old system was calculated to be on the order of 5 to 10%. Even so, George Lee's speed represents an impressive achievement.

* * *

Day 4 winners in the 15-Meter and Standard Classes were Kees Musters and Markku Kuittinen (DG-300), respectively. Musters clocked 162.4 kph, and Kuittinen posted 149.5 kph for the Standard task. Like George Lee, both men said that the weather was the best they had ever flown in. Musters, in fact, said that though the flight was fast, it was also so smooth, effortless and so devoid of problems that it was almost boring. He had waited around the starting clock for two hours before setting out on the course. There's no doubt he sized up the day very well.

THANK YOU, HOBBS!

"I've never met so many friendly, helpful, outgoing people. Where do they come from?" asked a reporter at one of the daily briefings.

"Hobbs," answered Contest Manager Jack Gomez.

He should know. Jack closed down his business, in effect, for six months and rallied the town behind the contest. The town *knew* it was hosting a world-class event. Signs across the streets, in shops and industries welcomed the Championships. Front page feature stories and daily updates were in the newspapers. TV and radio stations carried regular spot news items and had their announcers/reporters at the daily briefings. Non-English speaking pilots landing out seldom needed to use their identification cards—New Mexicans in remote parts of the contest area had heard about them already.

Despite Jack's understandable partisanship, however, not all the many volunteers were Hobbs natives. Several hundred SSA'ers from all over the country devoted their vacations to the championship, journeyed long distances and paid their own expenses to toil in the summer heat at the myriad chores that have to be done to make a contest run smoothly. They came because they love soaring: what makes the effort of the Hobbs volunteers so notable is that many of them had no prior interest in the sport. They pitched in because Hobbs was hosting the event, and they wanted their town's hospitality to shine. It did.

New Mexico Junior College assigned facilities and staff throughout the meet and participated in the advance preparations, served excellent breakfast and dinner buffets and brought box lunches to the field. The gymnasium was transformed into the briefing area with bleachers for spectators. There were rooms for the meet office, press briefings, task setting, team managers' meetings and others.

The school's computer department was actively involved in preparing such things as on-the-field display of scores during finishes. Printing, collating, and distribution of the *Hobbs Herald* daily bulletin was an important contribution by NMJC.

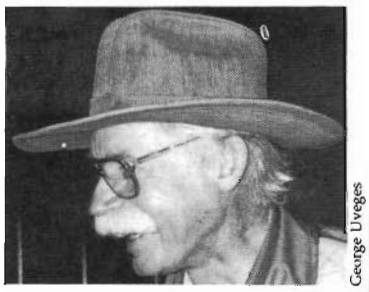
The College of the Southwest also opened its doors to house the OSTIV Congress and the Contest Stewards and International Jury.

As an official in the Chamber of Commerce, Jack Gomez found support and involvement from business and the Chamber of Commerce readily forthcoming. Two examples suffice: An oil company president and his ad hoc committee took on the assembling of mobile homes in an "International Village" to house pilots and crews. A tire shop changed tires for contestants during the meet without charge. The city did on-site work such as running special sewer and electrical lines.

Combining the volunteers of Hobbs with the visiting SSA helpers into an effective team, the Hobbs '83 Committee orchestrated the whole complex operation under the batons of Judge Hal Lattimore, Competition Director, Jack Gomez and Deputy Directors Bernald Smith and John Brittingham. But the "orchestra" which actually did the work was composed of many people, and some of their names are on page 41.

George Uveges

Hal Lattimore

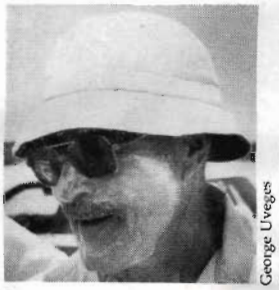


Bernald Smith

George Uveges

Sharon Austin

John Brittingham



Jack Gomez

George Uveges

Kuittinen made his first turnpoint with only two thermals. But things didn't go quite as smoothly on the second leg because when he attempted a course deviation to take advantage of cloudstreet alignment, weak thermals dropped him to 1000 meters and he lost 15–20 minutes extricating himself. He made it up on the last leg by climbing to 4000 meters and speeding home without a turn to post the fastest Standard Class speed of the Championships—149.5 kph (92.6 mph). "It was a celebration!" he exclaimed.

DAY 5, JULY 2

OPEN CLASS: Tulia - Kenna - Hobbs: 354.0 mi./570.9 km.
15-METER CLASS: Hereford - Kenna - Hobbs: 342.0 mi./551.6 km.
STANDARD CLASS; Floydada - Caprock Station - Hobbs: 318.7 mi./514.0 km.

A rest day called between Days 4 and 5 provided a break in the almost continuous racing, and next morning pilots and crews were eager to resume; especially since the available weather data suggested that the general situation was holding and that Day 5 should provide conditions equivalent to Day 4, which came to be regarded as the best of the meet. All classes were being tasked to race distances exceeding 500 kilometers! A Diamond day.

The tasks were laid northeast to north/northeast to first turns that were on or near the border line of the contest area. The placement of these turnpoints proved critical. Thunderstorms around Floydada turnpoint in the south area seemed to be at the edge of the influx of moist air coming in from the Gulf of Mexico and known variously as the "Marfa Dew Line," or "Dry Line." At Hereford, the northern turnpoint, patches of high cirrus shadowed the area and weakened lift greatly. Only the Open Class turnpoint at Tulia was clear.

"We were not affected by the thunderstorms," Ingo Renner observed. "There were cumulus all the way around the task, with only a few blue patches. Lift was good at 7–800 fpm with peaks of 1000 fpm; cloudbases were still above me at 16,000 feet but lift eased off above that height, so I didn't climb all the way. The cirrus moving in from the west didn't affect our trek—there was plenty of heating. I may have left too early; it took me 3 hours and 20 minutes to complete the 355-mile triangle." The scoresheet seemed to show he had left at just the right time. His speed won him another 1st place and was listed at 171.4 kph—106.2 mph!

High as that is, it is worth noting that George Moffat's true airspeed reached 200 mph for about 75 miles under cloudbases around 17–18,000 feet. George was jinxed for the day, however, when he either ran out of oxygen or suffered equipment failure and had to drop to a lower altitude.

* * *

Joao Widmer, an aeronautical engineer on the Brazilian team, was delighted when he was able to begin the 15-Meter course along with Karl Striedieck and Kees Musters, two of the top speed merchants among the 48 pilots in the class. "This was very interesting because this is the first time I have ever flown in such conditions. I am learning how to fly faster at Hobbs."

Widmer is a fast learner, evidently, because his speed at the end of the race—128.9 kph—exceeded all the others in his class. Joao and his friends left at 3800 meters after they photographed the start clock. A brisk tailwind sped his AS-W 20 along the track at a dizzying clip. Joao was ecstatic—until he looked out to the west and saw the encroaching cirrus predicted in the morning briefing.

"The clouds were arriving over the course earlier than I thought they would. But I could see they were not solid, and there were patches of sun reaching the ground here and there. I knew we would be flying into the wind on the second leg, and that, combined with the cirrus cover, caused me some worry."

The second leg was indeed a different story. After a thermal over the Hereford turnpoint, altitude began to dribble away. Finally they reached a point where the need to survive took temporary ascendancy over aggressive competition: "Four of us spread out so that we were getting the widest possible search area. There was no communication between us . . . just the common realization that the action was necessary if we were hoping to finish the race."

Twenty-three others in his class went down, mostly along the second leg, and Hobbs Air, calling missing pilots to relay their locations, flew until twilight turned to night.

Joao finally found lift, but not until he had glided 70 km and was within 1100 meters of the ground. "I was real

THE MANAGER ON THE TEAM

"I was at Paderborn and Chateauroux," said U.S. Team Manager Rudy Mozer, "and I feel the level of teamsmanship has definitely grown. In that respect the '83 team is by far the best."

Just how good they were at Hobbs can be seen from their daily cumulative placings:

Moffat: 5-5-2-2-2-2-4-4-4-4-4-4
Butler: 4-4-4-5-4-5-5-6-7-6-5-7
Striedieck: 4-6-5-2-4-5-3-3-3-2-2-2
Gimmey: 7-2-4-3-15-12-10-9-11-13-12-10
Beltz: 2-3-1-1-7-3-4-4-5-4-2-2
Mozer: 5-5-2-2-6-6-5-5-6-6-5-5

Below, from left, is the U.S. team of Manager Rudy Mozer, Dick Butler, George Moffat, Ray Gimmey, Karl Striedieck, Eric Mozer, Tom Beltz.

Cindy Brickner

lucky at this point," Joao said, "because I was a little behind the others when I picked up a good thermal in the middle of the blue—in the middle of nothing. It carried me 30 km short of Kenna, enough to get me around the turnpoint at 1700 meters. Farther down the line, some promising signs made me pull a little left of course and into enough lift to set up a final fast glide home."

* * *

The Standard Class was not ravaged by the weather as badly as their 15-Meter comrades (there were only two outlandings), but their speeds were notably down from the sizzling Day 4. South African Granville Dunbar topped his class by flying his LS-4 at 146.3 kph. He explained his strategy:

"Our team weatherman indicated storms would be in full swing by 3:30 or 4:00. The storm zone was slated to be about 220 km out, and I knew I had to get going by 2:30 at the latest."

Fortunately, Dunbar was one of the early starters in the class and was able to leave at 14,000 feet.

"There was a tailwind. I was amazed that I was going 200 kph all the way to Lubbock halfway along the first leg. Before I got there, I had two good climbs, both more than 1000 fpm. The storm broke just when our team weatherman predicted. My early start had paid off!"

Dunbar had also taken the time to climb high because when he confronted the actual storm he realized he would have a problem getting in and out of Floydada. "This was the case. I glided from Lubbock to Floydada turnpoint and right out again. I was abeam of Lubbock to the south before I found lift near a big dust storm from the cloud downfall coming toward me. I was about 10 km from it. I think that moving mass was kicking up thermals along the ground in front of it. I was happy because it had been an 80-km glide to that point without lift. I took it to 12,000 feet. It wasn't a good stretch; I was just doing two turns and moving on, then another two and moving a little farther.

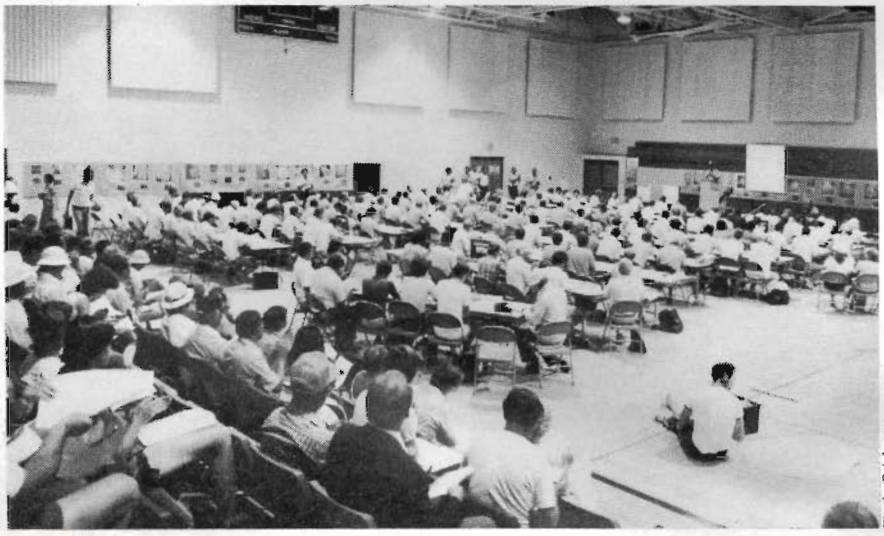
"I went on like that for 40 km until I got to the second turnpoint at Caprock. I'd been under a cloudstreet fighting a headwind the whole leg and my average speed was going down. There were still 40 km to go when the street ended. 'Don't go bounding out in the blue, now,' I told myself. I stopped, worked a 3½-meter climb to 16,500, and glided into the turnpoint.

"The trip to the finish line was a happy one. I glided down to 7000 feet MSL before I found one last thermal which took me to 10,000 feet and a final glide."

The French, who do everything with style, unload their sailplanes from the military transport plane which brought them to Hobbs.

Jim Brown

With 109 pilots plus supporting personnel to accommodate it was necessary to move the daily briefing to New Mexico Junior College gymnasium.



Cindy Brickner

DAY 6, JULY 3

OPEN CLASS: Tahoka - Midland - Wink - Hobbs: 301.1 mi./485.6 km.

15-METER CLASS: Tahoka - Lamesa - Wink - Hobbs: 284.0 mi./457.9 km.

STANDARD CLASS: Tahoka - Midland - Jal - Hobbs: 272.1 mi./438.9 km.

For Day 6 the task setters again sent pilots to the eastern sector of the contest arena. They wanted to give contestants opportunities to make use of a convergence 85 miles out; they also wanted to avoid the previous day's problems. The solution was to opt for quadrilaterals and lay the courses atop one another so that all classes flew the same first leg—an 85-mile straightaway from Hobbs to Tahoka.

One hundred and nine sailplanes transformed the route into an aerial raceway that delighted Tom Beltz. He tooled his LS-4 like an aggressive freeway driver.

"We went full speed all the way," Beltz said. "I didn't waste time; it was easy to spot rising sailplanes in the constant flow of traffic. There were no clouds, but lift was working at 500 to 700 fpm and I stayed above 10,000 feet all the way to the turn at Tahoka."

The reason for the quadrilateral became apparent to the pilots when they turned south at Tahoka and started down the second leg: They were being sent along a convergence—a battle zone of contending air masses. The forces of moist tropical air from the Gulf of Mexico and the dry western air were locked head-on to establish dominance over the territory.

"The dewline convergence lay in a reversed S between Tahoka and Midland," Tom Beltz recalled. "I followed it east of course out of Tahoka and ran from cloud to cloud without finding any real lift. Neither did anyone else around me. The pack got lower and lower. What saved me was working zero air, but I had dropped from 13,500 to 9000 feet. At one point 10 miles from Lamesa—second turn for the 15-Meters—Eric Mozer came in under me and began working something, but I got nothing. I saw clouds forming to the west and decided to cut for the course line. I found a seven-eight knotter and climbed to 13,000 feet, being joined by a couple of others on the way up. All those who went on, including Eric, had no luck at all and were down to 7000 feet by the time they reached the Lamesa turnpoint."

Bruno Gantenbrink, (Open Class, Germany) and Markku Kuittinen (Standard Class, Finland) had both ar-

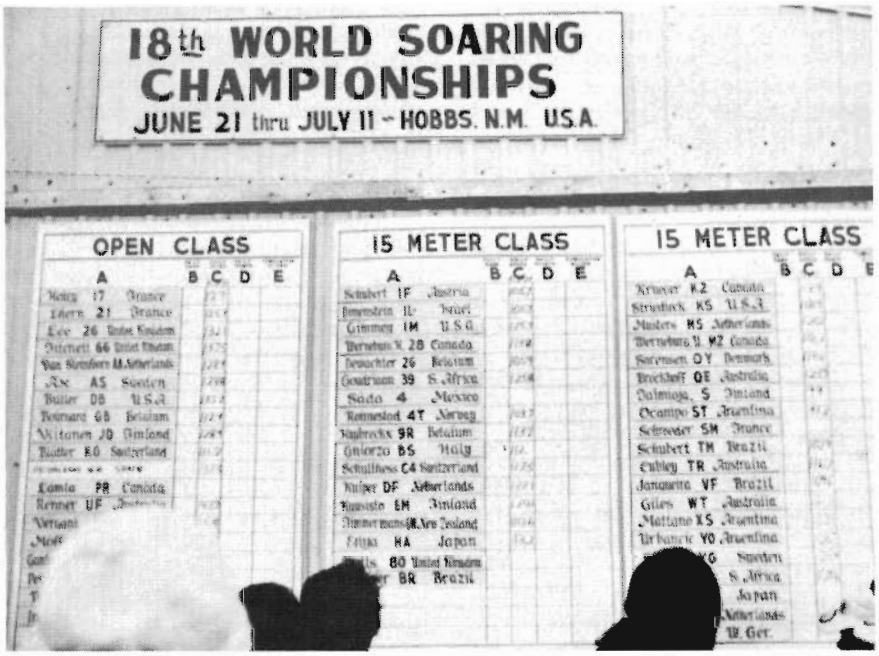
rived from Hobbs at the first turnpoint with 3000 meters. Neither had been below 1500 meters. Gantenbrink had been obliged to make a second start; however, Kuittinen, whose class started earlier, reported four m/s average lift and described conditions as excellent all the way.

Tom Beltz was joined by Dick Butler in a seven-to-eight-knotter when he went through the lift west of the Midland turnpoint. "We were in communication and I tried to help," Tom said. "You can't do much with the Opens, they go by you so fast. Butler left us zigzagging to every cloud he could find on the way to the Open Class third turn at Wink. Our course was to Jal. Once we got out in the clear air we got better thermals, believe it or not. Two of them out of Jal helped me blast home to Hobbs at 138.2 kph."

Kuittinen climbed to 3200 meters over some sand dunes, which was enough to glide straight around his turnpoint and to five m/s lift a little farther out on the last leg. "I got too much height there and couldn't burn it off before I reached Hobbs," he complained happily. He came in higher than he wanted and fast enough to win the day at 138.4 kph—a little more than one-tenth mph faster than Tom!

Gantenbrink found blue streets on the third leg. "This was a great help flying into the headwind." He rounded the final turn at Wink with 2000 feet and set out for Hobbs, expecting to dolphin across the blue streets he had been flying along on the third leg. The streets weren't there, but he pressed ahead nevertheless. By flying at max L/D, he just managed to reach the finish line with enough altitude for a respectable pattern and landing. He finished the course nine-tenths of a kph faster than Ingo Renner, who dropped to 2nd place for the day, though he remained firmly ensconsed in 1st place overall.

Marc Schroeder came to Hobbs wearing the World Standard Class Soaring Champion crown. It may be that Marc, like some other European pilots, found that it took time to adjust to the great differences between soaring conditions in his native France and those of the southwestern U.S. Whatever the cause, his daily placings (40-35-20-22-7-1) showed an ascending curve that culminated with his Day 6 victory when he averaged 147.9 kph in his AS-W 20B around the racing class' 457.9-km task. But Marc's rally was too late to save his title.



This was the most-read document at Hobbs.

Dick Butler's AS-W 22X, left, undergoes the careful scrutiny of officials at weigh-in.

First things first: John Brittingham (aka Deputy Dawg), clearly has his priorities right. At 106°F, ice cream comes first.

DAY 7, JULY 4

OPEN CLASS: Caprock Station - Morton - Hobbs: 171.4 mi./276.5 km.

15-METER CLASS: Caprock Station - Morton - Hobbs: 171.4 mi./276.5 km.

STANDARD CLASS: Seagraves - Morton - Hobbs: 168.0 mi./271.0 km.

Because of weather uncertainties, the morning briefing had been delayed while late weather soundings were sorted out and alternate shorter tasks set. As a result, launchings were late and Ingo Renner had to leave as soon as possible.

"There was no choice," he said. "It was 4:00 p.m. when the start was opened for our class. There was just barely enough time to get around the 276.5-km task. But the flight was straightforward and lift was better than forecast. There was also a bit of streeting, with lift always under the clouds. There were plenty of those with bases around 10,000 feet MSL."

The appearance of another 1000 points next to Ingo's name at the top of the Open Class scores was becoming almost routine. His average speed of 124.3 kph was slower than his earlier marks, reflecting the softer conditions of the day.

* * *

Peter Teunisse was fastest around the Standard Class course, flying his DG-300 at an average speed of 104.1 kph. "Our class was first to be launched," Peter said. Nevertheless it was 3:44 p.m. before I started east on the leg to Seagraves. At first I flew with Hans Gloeckl of the German team in his LS-4. We used three thermals and turned high at Seagraves. On the second leg we had to fly into a headwind, but fortunately the clouds lined up. There wasn't much lift, but no heavy sink either. I tried to keep high and push on. About 20 miles from Morton, the second turnpoint, I bumped into a seven-knot thermal, the best of the day. With that help I was able to turn Morton and then start back. This was the nice part because the strong wind was now at my back. I could probably have made it without turning, but to be safe I stopped and worked a couple of four-five knot thermals."

* * *

When the revised tasks were announced, the 15-Meter pilots found that they were to fly the same course as the Open Class and were scheduled (by rotation) to take off first. Switzerland's Alfred Schulthess climbed his *Ventus B* to cloudbase to take his start photo at 3:40 p.m. and was able to get out on the track immediately.

"The main problem on the first two legs was the northeast wind," Schulthess said. "It must have been 30-40 knots at altitude. On the way to Caprock Station, the first turn, it was a quartering headwind, which is bad because in thermaling you drift back as rapidly as you climb. Straight-ahead dolphin flight is much better. There weren't any regular streets, but there was lift under every cloud. When I turned Caprock and headed toward Morton, the headwind was straight on the nose of the sailplane. Still, I avoided circling and flew as slowly as possible on the dolphin pull-ups."

The wind took its toll, dropping him to 500 meters by the time he had finished taking his turnpoint photo. "I glided downwind right after the photo. What a wonderful feeling to have the wind at my back for a change. And even nicer, I picked up a three-meter thermal and got home first," he said. He had averaged a speed of 108.1 kph.

Gary Edwards

Hobbs Industrial Airpark may lack the lush greenery of some past Internationals sites, but the area more than made up for this with superb soaring weather and a vast launch ramp that could handle all 109 contestants without even encroaching on the landing runways. Add good food, smooth organization and outstanding competitors and the result was a great contest.

DAY 8, JULY 6

OPEN CLASS: Vega - Caprock Station - Hobbs: 368.0 mi./593.2 km.

15-METER CLASS: Midland - Portales - Hobbs: 346.0-mi./557.3 km.

STANDARD CLASS: Midland - Kenna - Hobbs: 321.2 mi./518.1 km.

Even for Ingo Renner, his Day 8 flight was a dream. "For over four hours, Bernard Fitchett and I raced our *Nimbuses* mile after mile under a great field of cumulus that stretched far across the contest area. It was a rare opportunity for one-to-one racing with a top world-class soaring pilot.

"I like long tasks because they demand an early start and reduce the luck factor associated with start-gate gamesmanship. Bernard and I left early at about the same time and picked one another up on course."

The Open Class course was a triangle so flattened that it was essentially an out-and-return task: The first leg heading ran 005° north for 176.7 miles to Vega, the northernmost turnpoint of the contest area. The 147.6-mile track to the second turnpoint at Caprock Station was 198° south.

"I lost sight of Fitchett during part of the first leg, but rejoined him on the last segment before rounding the turn. During this time, I noticed that the field of cumulus above us was being pushed westward by clear air from the east. It was moving fast. By the time we had made our turn at the apex of the triangle, the clear air had pushed the clouds west of the second leg. Happily, the lift seemed unaffected. Strong blue thermals were visible because you could see faint cloud caps trying to form at their tops. These meant strong lift and good markers toward Caprock Station.

"The lead changed constantly. We leapfrogged. Fitchett would lead sometimes; I would be ahead at others. We vied constantly to gain advantage, no matter how small.

"Matching wits with a pilot of the caliber of Bernard Fitchett is a priceless learning experience, a pressure-cooker situation for the fast absorption of technique. I race to win, of course, but to me the World Championships are an opportunity every two years to learn more about soaring. Later, on record attempts in speed triangles, I put into practice what I've learned in competition flying."

The race illustrated an anomaly of sailplane racing. Though Fitchett and Renner appeared to be running neck and neck, Renner, who won the day, was actually racing George Moffat,

(Continued on page 33)

STEWARDS AND THE INTERNATIONAL JURY

by ANN WELCH

What do they do all of the time, those people with fancy badges saying "Steward" or "International Jury"? We know they eat, but the rest of the time they just seem to wander about or talk—must be quite a nice way to see a world contest. Well, it's certainly a fine way to watch the flying, but there is a little bit more to what they do.

Let's look at the Stewards first. CIVV says that for each world contest there must be at least three Stewards who must be of different nationalities and not hold any other position in the organization. At Hobbs there were three: Fred Weinholtz from West Germany, Max Faber of Austria and Wally Wallington from Australia. You have to look in the FAI Sporting Code to find the duties of the Stewards, and these provisions require that they watch over the conduct of the event as advisers to the Director, and report to him any infringements of the regulations or behavior that would hurt the championships or the sport of soaring.

Sounds simple, but it sometimes takes considerable time to collect information over burning issues like the problem of the maximum takeoff weight. Sailplanes have to be weighed and the permitted weights controlled—all observed carefully by the Stewards. Then there are new operations, like the ground clock. Here it was necessary for the Stewards to do much careful observing before the start of the championships to be sure the system had no hidden flaws; but the organizers had done their homework well.

The Stewards also study takeoff and finish line procedures, scoring computerization, photo analysis and just about everything that happens, because their objective is to assist the Director and his helpers to make their championship contest the success it deserves to be. Another, less official, job they do is to try to answer competitors' questions, and there are quite a lot of these in a contest with 26 countries and something like 14 languages between them. Questions might be about the meaning of some rule from a pilot in his first Internationals, or from a team captain concerning the photo interpretation equipment. Not only does this save the organizers from constant interruptions when they are, as usual, overworked, but competitors may sometimes prefer to first have an unofficial talk with a Steward instead of going officially to the Director, as this could avoid the need of making a complaint—which no one likes doing. The Director may, of course, ask the Stewards to study some particular situation or potential problem and provide him with facts, which he uses to come to a decision.

The job of the Chairman and Vice-Chairman of the International Jury is different, although they may often be seen with the Stewards as they need to know just as much about the systems and their operation in case of a protest, which is when their real work starts. The Jury Chairman and Vice-Chairman are appointed by CIVV, and at Hobbs they were Tor Johannesson of Norway and Ann Welch, UK; although during the championships they—like the Stewards—become completely "international."

Protests are fortunately rare in world contests but, should they occur, are invariably of a technical nature and do not involve slanging matches between pilots. This is because CIVV requires that in any difficult problem which might lead to a protest, the Director has first to decide on the matter, so all protests are actually against a decision of the Director. This may seem tough on him, but all Directors soon develop broad shoulders, even if they did not have them to start with.

Any protest is heard by the International Jury consisting of the Team Captain (usually) of each country and presided over by the Chairman and Vice-Chairman. The two sides of the case are presented by the Protestor and the Director, the jury listens, asks questions, and finally votes by secret ballot. It requires a two-thirds majority for the jury to overthrow a decision of the Director.

Okay, that may sound fine, but what experience do these Stewards or Chairmen have? What do they know about championships, or are they "paper" people who know only the rules? Well, let's see. Between the five of them at this year's World Championships it adds up to three Directors of World Contests and 15 Nationals; seven times in World Contests as pilots; eight times International Jury, and 12 times as Team Captains. They also have 10 Diamonds between them, and one has been at every World Championships since 1948.

Over all these years just about every problem and protest has turned up, and before the next championships has led to necessary rules changes. These range from requiring a pilot to return with a trailer instead of going home in his private Learjet, to prohibiting a pilot arriving at a contest with a heap of parts and flying a different configuration sailplane whenever it suits him. Most protests in recent years have been about turnpoint photography and start line observations, though the ground clock should now eliminate these. But soaring is still a developing sport and it would be very dull if no new problems showed up.

Editor's note: The following report appeared in the Hobbs Herald *daily bulletin of July 9, and is an illustrative case history of how the International Jury functioned at the Championships:*

THE PROTEST OF JULY 6

The International Jury met, under the chairmanship of Tor Johannessen, to consider the protest made by the British Team Manager Mike Pope on the 25 point penalty given to George Lee, 26, on July 12 for being 12 kg. overweight with his *Nimbus 3*.

Attendance at a Jury meeting is compulsory but the representative for Chile was unanimously excused as she was the only crew for her pilot who was still airborne.

The case was both against the accuracy of the scale results when weighing in a strong wind, and inconsistencies in penalties given. After a very long meeting the secret ballot vote did not reach the two-thirds majority needed to accept that the weighing system was not sufficiently accurate by one vote, but did accept that the penalty was too harsh and should be reduced. It recommended a penalty of the order of five points similar to the penalties given on the first day on which penalties had been given (two days earlier). As a result of this protest, the Director decided to reduce the penalty of sailplane 26 and other gliders for being overweight on July 25 to 10 points.

—ANN WELCH
Vice-Chairman International Jury

(Continued from page 31)

whom he never saw. In the end it was the timers and their clocks that determined Ingo's speed to be fastest of the day—136.9 kph—with George Moffat coming in second at 134.7 kph.

* * *

Martyn Wells' views of flying the Championships are similar to those of Ingo Renner.

"It's my first Internationals; I'm here to learn," the 15-Meter pilot said. He had landed out earlier in his AS-W 20B, but with a few races under his belt he established some checkpoints of his own and began to find similarities to flying in England.

"On the first 15-Meter leg to Midland, I flew south to take advantage of clouds that were relevant to my course when it turned blue. That's British flying, inasmuch as we have to zigzag to go where the lift is. There was a headwind at first, then a crosswind. Lift was bumping six knots—nothing more than that. I got down to 7000 feet. Fortunately, in this sort of situation you don't have time to think about the terrain below."

Martyn pressed on and turned Midland at 8000 feet. For a while things got worse, dropping him to 1500 feet AGL. Twenty km west of Midland the proverbial good lift arrived. At altitude he observed the same phenomenon Ingo had seen—the telltale thin cap cloud to mark a strong thermal.

"It was what I needed to guide me. The little cloud caps developed, lift reached 10 knots, and operating altitude rose to 10,000 feet and more by the time I reached the second turnpoint at Portales.

"There was a quartering tailwind on the third leg. The lift wasn't quite as good as it had been, and I kept expecting the day to die. But it didn't. I had company—seven or eight other ships—and we came back rather comfortably. At home I flew a contest never getting higher than 2000 feet, so it's a pleasure to operate at altitudes like you have here, but I'm not used to running through horrendous sink, so I started my final glide lower than most people seem to do here."

Martyn slipped through the finish line with no surprises. Television monitors around the contest center flashed his speed at 122.1 kph, fastest of his class.

* * *

Jan Andersen, Day 8 Standard Class victor, had difficulty when he phoned home to Denmark with the daily results. "They won't believe that day after day we are reaching speeds of 125 kph or better," he says. "That's faster than our national record!"

As Jan soared south toward the Standard Class turnpoint at Midland, clouds which had been visible at the start disappeared 30 km out. His disappointment evaporated when he found plenty of three-meter blue thermals. He, too, quickly saw the significance of the thin cloud caps as markers of invisible thermals. These were abundant into Midland and on the second leg as far north as Seminole.

Tony Estrin

Stig Oye of Denmark lands the borrowed LS-4 with which he won the Standard Class crown.

"I only stopped twice to circle in very strong lift. The rest was just long stretches of dolphining. I think it was the best part of the race."

At this point, lift weakened noticeably. Jan made a bold decision: "I decided to make a major course deviation to reach the edge of the cloud field that had been retreating over the higher plains to the west."

By the time he succeeded he was actually soaring above the third leg, the return course from Kenna to Hobbs. "The convection layer got deeper as I got to the higher ground, though thermals were narrow in some areas and I didn't dare be too adventurous. Gradually they widened and I climbed enough to make my Kenna turn at 10,000 feet. On the way home, the clouds were random on the third leg; I zigzagged south between them as the day went weaker and weaker. I got the last good thermal at about 5:45 and was able to get home." Anderson's winning speed was 121.6 kph.

* * *

A Weather Footnote: *The cumulus field that pilots pursued as it apparently moved westward away from the courses was just another of weather's sleight-of-hand tricks, according to meteorologist Bruce Carter. While a subsidence inversion capped growth of the cumulus tops, increasing convective mixing of the relatively dry air from below was eating away at their bottoms like a north/south line of aerial Pacmen. Instead of an encroaching blue hole, blue thermals sprouted in profusion, and the stronger among them tipped off their presence to pilots with thin cap cloud vapors punching into the inversion aloft.*

Private modifications to the "superships" at Hobbs included extensive wing revisions on the Nimbus 3 *flown by George Moffat, left, and the AS-W 22X, right, flown by Dick Butler.*

Steve Zimmerman

Maria Hernandez

DAY 9, JULY 7

OPEN CLASS: Pecos - Post - Hobbs: 387.0 mi./623.7 km.

15-METER CLASS: Pecos - Midland - Tahoka - Hobbs: 356.1 mi./574.4 km.

STANDARD CLASS: Monahans - Big Spring - Brownfield: 323.3 mi./521.4 km.

"I really didn't expect *this* would happen," said Ingo Renner at the end of Day 9. "This" was another win, a clear-cut victory won by flying at an average speed of 137.2 kph. His daily placings now stood at a remarkable 1-1-1-4-1-2-1-1-1.

Was the man from Australia really a tiger trying to pass himself off as a bright-eyed, bushy-tailed koala bear? "Der Ingo" insisted he was what he professed to be—a soaring enthusiast who came to the Championships to learn, not to devour his rivals. "I left the start as early as possible on Day 9 because it was a long race and I can't afford to lose points by leaving late and risking landing out, especially toward the end of the contest. I could lose everything."

There were clouds with lowering bases all the way along the 156-mile leg to Pecos, and Renner flew without company—no man-to-man race today. Then it was another fast 178-mile leg to Post and a routine ride home in a tailwind with only a couple of problems finding thermals. It sounds easy, but it's worth 1000 points.

* * *

Ernst-Gernot Peter was flying his AS-W 20 in the 15-Meter Class for the West German Team. His experience in the meet had resulted in a change in his general strategy:

"The competition pilot's state of mind is an important factor in racing. Mine wasn't very good on Day 9 because I had been losing; that is, I hadn't been winning. So I resolved that on this day, I wouldn't worry about my competitors—when they started, where they were, etc.—but that I would just fly for myself.

"I had to learn the development pattern here on the High Plains. I find that many times blue thermals are stronger than cloud lift in the same area. I learned that thermal distribution is relatively regular, and that it is better to fly a straight course without detours, even without cloud markers. So I decided to fly on course, ignore the deviations of other pilots and count on the thermals more.

"The first leg of the quadrilateral had the thermals I needed. Lift averaged four-six knots and I found one eight-knotter. Clouds dried out near Pecos, the first turnpoint, but became heavier again between Pecos and Midland and I began working closer to the bases. There was no streeting, but distribution was fairly regular, enabling me to fly cloud to cloud with good speed between turnpoints.

"I saw Tony Timmermans and Lindsey Stephens on the second leg. I looked ahead on the course and considered my tactics. I saw that clouds were disappearing short of the Tahoka turnpoint. As I say, I had learned this didn't necessarily mean there wouldn't be thermals, so, while Tony worked the last cloud, I pushed on straight to the turnpoint, got my picture, and moved on."

Thermals were there and Peter moved quite well on the last leg—enough to average 132.5 kph and win the race.

* * *

Australia's John Buchanan shouldn't have been fretting on Day 9; he was in 1st place overall among the Standard Class pilots. The problem would be staying there.

"I'd been worrying about every other bugger in the contest—when did he start?—where was he now?—all that sort of rubbish. I decided to forget everyone else and enjoy the day. So when I was low at the start clock I thought, 'I'm not going to monkey around. I'll catch up with them out on the course.' "

And that was how it was. "I turned the radio off and streeted the LS-4 most of the way to the Monahans turn except for a couple of thermals near the start. No trouble getting around the pylon. The larger cu's were south of track on the way to Big Spring. I went after them. It was worthwhile. There was streeting and I was getting 12 knots in one thermal when everyone came along and horned in on me until it got so crowded my climb dropped to seven knots.

"I cleared out. You can't turn with these gaggles the way I fly, anyhow. They followed me along that leg down to 1500 feet AGL, which I thought was pretty interesting. After the Big Spring turn, we got a good run in lift until it blued out."

Buchanan observed that no one wanted to head out into the cloudless void and that his rivals were climbing for insurance altitude. "Everybody was hanging on, so I thought, 'Well, I'll just grit my teeth, take a long glide into the turnpoint at Brownfield, and see if I can reach those clouds out on the home leg.' And I did. Oh, I had to go down to 2000 feet, but when I turned around no other bugger had come. I had my thermal to myself at last, and I came in to Hobbs before 'em!" . . . with an average speed of 129.9 kph.

DAY 10, JULY 8

OPEN CLASS: Fort Stockton - Tahoka - Hobbs: 383.0 mi./617.4 km.

15-METER CLASS: Fort Stockton - Brownfield - Hobbs: 355.4 mi./573.2 km.

STANDARD CLASS: Pecos - Midland - Brownfield - Hobbs: 334.2 mi./539.1 km.

Tom Beltz won the Day 10 Standard Class race after a day of noteworthy cooperation with teammate Eric Mozer. Having had bad luck with late starts they got away earlier, were held low down the first two streets toward Pecos, and then began clicking on the second leg to Midland. "Every fourth cloudstreet was working," recalled Tom. He connected with a banger which Eric arrived too late to catch, and pulled ahead. "I just pumped information back to him on clouds and lift all the rest of the flight." Tom's speed on the scoreboard showed 124.6 kph (77.2 mph).

* * *

The Open and 15-Meter Classes were sent over the same first leg on their way to the turnpoint at Fort Stockton. Looking ahead from his *Ventus A*, Klaus Holighaus spotted three Open Class ships:

"One was George Moffat. We flew more or less together because the cloudbase was lowering and we weren't circling. When we came to a big blue hole we separated, with Moffat going left while I went right. Passing Wink, I was down to 400 meters. I found three-meter lift and climbed to a cloudstreet west of Monahans. Under the thickest cloud I saw Karl Striedieck and Kees Musters and thought, 'Oh, they've caught me again.' But I learned later they had started earlier."

Cloudbases and Klaus' spirits rose toward the Ft. Stockton turnpoint when he set out toward Brownfield, 161.8 miles north.

"There were very good cloudstreets, but they were aligned about on a 30° heading so that you had to go a little west and then jump streets. It turned blue approaching Lamesa. I was with Striedieck and Musters when we found a good five-meter thermal to 20 km short of the Brownfield turnpoint. It got us in and out on the last leg. Twenty km out on the last leg I used a five-meter thermal to climb to 4000 meters and made the last 90 km to the finish line without circling."

Winning a World Championship

Sharon Austin

The Dunbars, Granville, right, and new wife Debbie, with crew Steve Thomas and the LS-4a.

race at 138.9 kph is no small achievement. But to win it, like Klaus, in an aircraft you have conceived, designed and built must surely be the ultimate satisfaction.

DAY 11, JULY 9

OPEN CLASS: Midland - Tulia - Hobbs: 407.0 mi./656.5 km.
15-METER CLASS: Andrews - Hereford - Hobbs: 377.3 mi./608.6 km.
STANDARD CLASS: Wink - Lamesa - Littlefield - Hobbs: 347.0 mi./559.4 km.

Ingo Renner should have felt secure about his position on the next-to-last day. His unparalleled daily victories, his unbroken hold on cumulative 1st place, his large overall point lead, and the general consensus that he was already the de facto winner of his class were clear portents of the final outcome. But Ingo's cautious reserve suppressed any celebratory impulses as being entirely inappropriate.

"Remember, I was a burned child," he said. Ingo had been "burned" in Waikerie during the 14th Championships in 1974.

"I was leading by 118 points on the last day when my air brakes flew open during the start-gate run and were damaged. I had to land for a quick fix, and though I got across the course, I lost the Championship. The same thing could happen again, and then I'd be out of the contest again. But we hope for the best. . . ."

Although Competition Director Lattimore called the longest task to date, Ingo was unfazed. "I've flown seven 1000-km triangles in Australia, and a 600-km race seems small by comparison." Nevertheless, he obviously took the task seriously and was among those who left the start gate early.

"Cumulus were everywhere all around the course. No blue holes. The 15-Meters were launched before us Opens. They were in front of me marking thermals all along the 82.2-mile leg to Midland. I overtook them by the turnpoint. After that, I was on my own. I never saw anybody. By the middle of the leg, the clouds became sparse, especially around the turnpoint itself. But there were markers among them, enough to get me to Littlefield, where cover increased to three-eighths." It was an easy run home from there, according to Ingo. He had averaged 94.5 mph (152.5 kph) for the Open distance.

* * *

Karl Striedieck insisted he wasn't "flying mad" on Day 11, "just frustrated." Netherlander Kees Musters had taken cumulative 1st place on Day 1 in 15-Meters, and try as he would, Karl had been unable to dislodge him, though he had nudged his own cumulative placing to 3rd place by Day 7 and then 2nd place on Day 10.

Striedieck was first around the day's course at 143.3 kph. There was a flurry of excitement around the TV monitors continuously screening the finishers' speeds. It was clear before long that Karl was the day's winner and that his margin was a substantial one.

"I wanted to get out on course, so I left at 9800 feet MSL, even though I wasn't as high as some others. The course heading on the first leg put us in the same air as the Open Class. There were lots of markers and I went along with the Opens. I didn't fly point-to-point because the day's secret was to go where the cloustreets were. I didn't have to turn much. A lot of people were chasing me, but they decided to do something different or got left behind after about an hour and a half.

"And I had Ray Gimmey to help me. He was the first one out of the second turn. He worked a thermal—and waited—while I was going in.

"Hereford is an agricultural area until 30 miles out; it can be slow going. I had a couple of Mickey Mouse three-turn thermals there. But most of the 150-mile leg I was jinking around finding streets and pulling up—once in an eight-knotter, another time in seven knots."

* * *

Granville Dunbar flew the 348-mile Standard Class quadrilateral with a zestful purposefulness that far exceeded his previous performances. Two days earlier, Granville and his crewperson, Debbie Thomas, had been joined in holy matrimony. Said his bride, "The next day you win will be my wedding present." Dunbar remembers thinking, "I've only won one. Now I'll *have* to win another."

(A footnote to the wedding: Although the couple had planned to be married at the Internationals before leaving for home, the wedding itself had a spur-of-the-moment, Hobbsian midsummer-night's-dream feeling to it. The magistrate who administered the ceremonial vows turned out to be the Competition Director—*Judge* Hal Lattimore, remember? Hal is a man of law who regards nuptial vows as no less inviolate than the rules of world soaring championships. He explained to the young couple that his legal jurisdiction did not include New Mexico, but that if they were willing to step over the state line 15 miles east, he could perform his office with a clear conscience. Thus it came to pass that all and sundry made the journey under beautiful moonlit New Mexican skies to a roadside park to watch a Texas judge join two South Africans in wedlock.)

Back to the races:

Granville started high—10,300 feet—and flew streets, managing to pass several competitors enroute to Wink. "From there on I had good climbs but heavy sink between, except for the last 20 km before the third turn at Littlefield. From that point there

(Continued on page 38)

THE 18TH WORLD SOARING CHAMPIONSHIPS

OPEN CLASS

	Pilot	Country	Contest Number	Sailplane	JUNE 27 460.1-KM. TRIANGLE Post-Jal-Hobbs Speed KPH	Daily Score	JUNE 28 438.7-KM. TRIANGLE Pecos-Midland-Hobbs Speed KPH	Daily Score	Cum. Score	JUNE 29 475-KM. TRIANGLE Midland-Snyder-Hobbs Speed KPH	Daily Score	Cum. Score
1.	RENNER, INGO	Australia	UF	Nimbus 3	118.8	1000 (1)	142.8	1000 (1)	2000 (1)	158.5	1000 (1)	3000 (1)
2.	GANTENBRINK, BRUNO	W. Germany	YY	Nimbus 3	114.3	967 (3)	137.2	938 (2)	1905 (2)	132.3	739 (12)	2644 (5)
3.	HENRY, FRANCOIS-LOUIS	France	17	Nimbus 3	106.9	911 (8)	126.7	822 (11)	1733 (7)	140.7	822 (7)	2555 (7)
4.	MOFFAT, GEORGE	U.S.A.	XX	Nimbus 3	111.1	943 (5)	133.1	892 (5)	1835 (5)	153.0	945 (2)	2780 (2)
5.	PETTERSSON, AKE	Sweden	ZL	Nimbus 3	116.6	984 (2)	132.6	887 (7)	1871 (3)	145.0	865 (5)	2736 (3)
6.	LHERM, GERARD	France	21	Nimbus 3	105.9	904 (9)	125.5	808 (12)	1712 (8)	149.6	911 (3)	2623 (6)
7.	BUTLER, DICK	U.S.A.	DB	AS-W 22X	112.2	951 (4)	135.3	917 (4)	1868 (4)	136.6	781 (11)	2649 (4)
8.	DE ORLEANS, ALVARO	Spain	MM	AS-W 22	451.3*	631 (10)	132.9	890 (6)	1521 (9)	140.6	821 (8)	2342 (8)
9.	FITCHETT, BERNARD	U.K.	66	Nimbus 3	389.0*	533 (12)	137.2	938 (2)	1471 (10)	291.5*	209 (17)	1680 (14)
10.	LEE, GEORGE	U.K.	26	Nimbus 3	110.7	940 (6)	132.1	881 (8)	1821 (6)	263.6*	185 (18)	2006 (12)
11.	AX, GORAN	Sweden	AS	AS-W 22AC	414.9*	574 (11)	124.5	797 (13)	1371 (14)	141.4	829 (6)	2200 (9)
12.	VAN STEINFOORN, JAAP	Netherlands	AA	Nimbus 3	389.0*	533 (12)	128.7	844 (10)	1377 (13)	140.1	816 (9)	2193 (10)
13.	VIITANEN, MATIAS	Finland	JD	Nimbus 3	389.0*	533 (12)	129.1	848 (9)	1381 (12)	233.8*	159 (19)	1540 (16)
14.	BOURGARD, PAUL	Belgium	GB	Nimbus 3	348.7*	470 (17)	111.5	653 (14)	1123 (16)	148.2	897 (4)	2020 (11)
15.	INNES, DAVID	Guernsey	74	Nimbus 3	108.9	926 (7)	99.3	519 (16)	1445 (11)	105.4	471 (15)	1916 (13)
16.	VERGANI, WALTER	Italy	WU	Nimbus 3	364.5*	494 (15)	155.7*	85P (18)	579 (18)	122.0	636 (13)	1215 (18)
17.	PONTES, JOSE	Brazil	ZM	Nimbus 3	325.8*	434 (18)	0	0 (19)	434 (19)	136.9	784 (10)	1218 (17)
18.	BLATTER, FEDERICO	Switzerland	KG	Nimbus 3	357.5*	483 (16)	111.1	649 (15)	1132 (15)	110.9	525 (14)	1657 (15)
19.	LAMLA, PETER	Canada	PR	Nimbus 2	253.7*	320 (19)	358.5*	292 (17)	612 (17)	104.6	463 (16)	1075 (19)

STANDARD CLASS

	Pilot	Country	Contest Number	Sailplane	352.9-KM. TRIANGLE Morton-Andrews-Hobbs Speed KPH	Daily Score	349.9-KM. TRIANGLE Wink-Midland-Hobbs Speed KPH	Daily Score	Cum. Score	377.4-KM. TRIANGLE Midland-Big Spring-Hobbs Speed KPH	Daily Score	Cum. Score
1.	OYE, STIG	Denmark	BH	LS-4	89.3	878 (6)	109.4	927 (13)	1805 (6)	137.2	966 (9)	2771 (4)
2.	BELTZ, TOM	U.S.A.	TB	LS-4a	94.2	920 (2)	112.1	967 (2)	1887 (3)	138.6	985 (6)	2872 (1)
3.	BUCHANAN, JOHN	Australia	L	LS-4	93.7	916 (3)	114.3	1000 (1)	1916 (2)	128.1	844 (25)	2760 (5)
4.	ANDERSEN, JAN	Denmark	Y	LS-4	85.1	841 (9)	109.9	934 (12)	1775 (9)	127.4	835 (26)	2610 (12)
5.	MOZER, ERIC	U.S.A.	BT	LS-4a	93.3	912 (5)	111.3	955 (5)	1867 (5)	139.0	991 (4)	2858 (2)
6.	STOUFFS, HENRY	Belgium	Z	LS-4a	93.8	916 (3)	111.1	952 (6)	1868 (4)	119.5	729 (34)	2597 (13)
7.	SELEN, BAER	Netherlands	RO	DG-300	78.1	781 (19)	104.4	853 (18)	1634 (15)	132.8	907 (15)	2541 (14)
8.	GLOECKL, HANS	W. Germany	88	LS-4	83.2	825 (11)	110.1	937 (11)	1762 (11)	139.2	993 (2)	2755 (6)
9.	KJALLSTROM, MAGNUS	Sweden	ZZ	LS-4	86.7	855 (7)	103.0	832 (22)	1687 (13)	134.9	936 (12)	2623 (11)
10.	OTTOSSON, CURT-OLLE	Sweden	53	LS-4a	80.3	800 (14)	104.1	848 (20)	1648 (14)	139.1	992 (3)	2640 (10)
11.	DUNBAR, GRANVILLE	S. Africa	NS	LS-4a	327.8*	590 (27)	96.2	731 (32)	1321 (29)	134.4	929 (13)	2250 (26)
12.	FORSSTEN, JARMO	Finland	RC	LS-4	103.5	1000 (1)	109.2	924 (15)	1924 (1)	124.1	791 (28)	2715 (8)
13.	SCHREIBER, HEINZ	W. Germany	SZ	LS-4	338.0*	611 (23)	101.4	808 (25)	1419 (23)	130.4	875 (20)	2294 (24)
14.	KUITTINEN, MARKKU	Finland	GJ	DG-300	83.7	829 (10)	111.9	964 (3)	1793 (8)	138.2	980 (7)	2773 (3)
15.	RIERA, RODOLFO	Argentina	27	LS-4	80.1	798 (16)	96.8	740 (31)	1538 (20)	132.0	897 (17)	2435 (18)
16.	LEUTENEGGER, SIMON	Switzerland	GA	DG-300	332.6*	600 (26)	109.4	927 (13)	1527 (21)	137.8	974 (8)	2501 (16)
17.	BRIGLIADORI, LEONARDO	Italy	CS	LS-4	86.4	853 (8)	111.0	951 (7)	1804 (7)	135.0	937 (11)	2741 (7)
18.	NAVAS, GILLES	France	CA	Pégase 101	297.8*	526 (34)	102.6	826 (24)	1352 (27)	128.6	851 (24)	2203 (27)
19.	HANSEN, MOGENS	Denmark	K	LS-4	81.1	807 (13)	111.7	961 (4)	1768 (10)	121.2	752 (33)	2520 (15)
20.	RIZZI, ROBERTO	Argentina	41	LS-4	79.6	794 (18)	100.6	781P (28)	1575 (17)	123.9	788 (30)	2363 (21)
21.	DAVIS, ANDREW	U.K.	40	LS-4	253.2*	431 (38)	107.2	894 (17)	1325 (28)	139.7	1000 (1)	2325 (22)
22.	KRISTIANSEN, SVEIN	Norway	30	LS-4	334.2*	603 (24)	110.5	943 (9)	1546 (19)	118.3	713 (35)	2259 (25)
23.	CREGO, EDUARDO	Argentina	RI	LS-4	74.0	746 (20)	101.3	807 (26)	1553 (18)	128.8	854 (23)	2407 (19)
24.	LYONS, PETER	New Zealand	9B	LS-4	80.0	797 (17)	103.2	835 (21)	1632 (16)	125.4	808 (27)	2440 (17)
25.	WANZENRIED, FRITZ	Switzerland	S1	LS-4	80.3	800 (14)	108.2	909 (16)	1709 (12)	135.2	940 (10)	2649 (9)
26.	TEUNISSE, PETER	Netherlands	VN	DG-300	143.9*	199 (41)	110.2	939 (10)	1138 (34)	130.8	881 (18)	2019 (31)
27.	MCCAFFREY, SHANE	Australia	1T	Pégase 101	333.8*	602 (25)	260.7*	226 (42)	828 (39)	139.0	991 (4)	1819 (37)
28.	NIETLISPACH, HANS	Switzerland	7T	LS-4	349.3*	635 (21)	93.2	686 (34)	1321 (29)	112.8	639 (39)	1960 (33)
29.	MONTI, ROBERTO	Italy	C6	LS-4	300.0*	531 (30)	104.3	851 (19)	1382 (25)	133.2	913 (14)	2295 (23)
30.	STOGNER, GREG	Austria	5F	AS-W 19	308.2*	548 (29)	96.0	728 (33)	1276 (31)	124.0	789 (29)	2065 (28)
31.	SOARES, RAIMUNDO	Brazil	PG	AS-W 19	339.2*	614 (22)	82.3	525 (37)	1139 (33)	123.2	779 (32)	1918 (35)
32.	SEARS, PAUL	Canada	SO	AS-W 19B	322.9*	579 (28)	101.1	804 (27)	1383 (24)	114.0	655 (38)	2038 (29)
33.	OSEN, HANS	Austria	UK	LS-4	300.0*	531 (30)	102.9	830 (23)	1361 (26)	115.5	675 (37)	2036 (30)
34.	BERTONCINI, LUIGI	Italy	C5	LS-4	300.0*	531 (30)	110.7	946 (8)	1477 (22)	132.6	905 (16)	2382 (20)
35.	TOBOLA, HENRYK	Poland	CC	Jantar	286.1*	501 (35)	84.5	557 (36)	1058 (36)	129.1	858 (22)	1916 (36)
36.	STEVENS, MAX	New Zealand	H1	AS-W 19B	218.3*	357 (39)	98.5	765 (29)	1122 (35)	130.3	874 (21)	1996 (32)
37.	MAFFINI, SERVIO	Brazil	AZ	AS-W 19B	272.7*	473 (36)	93.1	685 (35)	1158 (32)	123.8	787 (31)	1945 (34)
38.	LANGELAAN, WILLEM	Canada	52	Jantar	272.7*	473 (36)	74.9	400P (38)	873 (38)	130.8	881 (18)	1754 (38)
39.	SZABO, WALTER	Austria	WF	Jantar	81.8	813 (12)	269.7*	235 (41)	1048 (37)	116.7	691 (36)	1739 (39)
40.	MONEO, ANTONIO	Spain	CJ	Jantar	300.0*	531 (30)	318.2*	287 (39)	818 (40)	103.8	518 (42)	1336 (41)
41.	INAMORI, HIDEAKI	Japan	XN	AS-W 19	29.7*	0 (42)	97.3	747 (30)	747 (41)	110.5	608 (40)	1355 (40)
42.	GRESA, JUAN	Spain	VT	AS-W 19A	300.0*	231P (40)	318.2*	287 (39)	518 (42)	103.9	520 (41)	1038 (42)

* An asterisk indicates distance (kilometers) flown instead of speed (kph), as a result of the pilot having failed to complete the course.
Figures in parentheses indicate daily and cumulative standings. DNC means did not compete. P means Penalty.

HOBBS, NEW MEXICO

JUNE 30 522.8-KM. TRIANGLE Hereford-Caprock Stn.-Hobbs					JULY 2 570.9-KM. TRIANGLE Tulia-Kenna-Hobbs				JULY 3 485.6-KM. QUADRILATERAL Tahoka-Midland-Wink-Hobbs				JULY 4 276.5-KM. TRIANGLE Caprock Stn.-Morton-Hobbs				JULY 6 593.2-KM. TRIANGLE Vega-Caprock Stn.-Hobbs			
Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score	
173.8	955	(4)	3955	(1)	171.4	1000	(1)	4955	(1)	155.4	989	(2)	5944	(1)	124.3	1000	(1)	6944	(1)	136.9	1000	(1)	7944	(1)
176.5	983	(2)	3627	(3)	157.0	850	(7)	4477	(3)	156.3	1000	(1)	5477	(3)	121.4	961	(2)	6438	(2)	133.1	948	(4)	7386	(2)
168.4	898	(7)	3453	(7)	168.8	973	(2)	4426	(6)	153.5	966	(4)	5392	(4)	121.1	957	(3)	6349	(3)	131.2	922	(5)	7271	(3)
169.7	912	(5)	3692	(2)	155.4	834	(11)	4526	(2)	155.0	979P	(3)	5505	(2)	105.0	740	(13)	6245	(4)	134.7	970	(2)	7215	(4)
164.2	854	(10)	3590	(4)	157.8	859	(6)	4449	(5)	133.1	722	(15)	5171	(7)	107.6	775	(11)	5946	(7)	128.6	886	(9)	6832	(7)
167.6	889	(8)	3512	(6)	152.5	804	(12)	4316	(7)	147.3	892	(5)	5208	(6)	108.3	784	(10)	5992	(6)	130.5	912	(6)	6904	(5)
168.8	902	(6)	3551	(5)	163.6	919	(3)	4470	(4)	142.7	832P	(7)	5302	(5)	115.1	876	(4)	6178	(5)	114.0	686	(18)	6864	(6)
154.6	753	(15)	3095	(8)	156.5	845	(9)	3940	(8)	138.7	789	(12)	4729	(8)	110.6	815	(8)	5544	(8)	124.8	834	(11)	6378	(8)
175.0	967	(3)	2647	(13)	161.4	896	(4)	3543	(12)	140.3	808	(11)	4351	(12)	110.0	807	(9)	5158	(12)	135.4	969P	(3)	6127	(10)
178.1	1000	(1)	3006	(11)	148.3	760	(14)	3766	(10)	141.2	819	(9)	4585	(10)	112.0	824P	(6)	5409	(10)	123.0	810	(12)	6219	(9)
164.0	852	(11)	3052	(9)	157.0	850	(7)	3902	(9)	140.7	813	(10)	4715	(9)	102.0	699	(14)	5414	(9)	115.1	701	(16)	6115	(11)
160.7	817	(13)	3010	(10)	124.4	512	(17)	3522	(13)	141.8	824P	(8)	4346	(13)	111.0	821	(7)	5167	(11)	129.1	893	(8)	6060	(12)
164.7	859	(9)	2399	(15)	159.1	872	(5)	3271	(15)	147.1	890	(6)	4161	(14)	112.2	827P	(5)	4988	(14)	129.6	900	(7)	5888	(13)
163.3	844	(12)	2864	(12)	156.2	842	(10)	3706	(11)	136.6	764	(14)	4470	(11)	99.4	664	(15)	5134	(13)	116.4	719	(14)	5853	(14)
144.5	646	(17)	2562	(14)	148.8	765	(13)	3327	(14)	130.4	689	(16)	4016	(15)	105.8	750	(12)	4766	(15)	116.8	725	(13)	5491	(15)
159.9	808	(14)	2023	(17)	142.6	676P	(15)	2699	(16)	129.3	676	(17)	3375	(16)	93.8	588	(16)	3963	(16)	114.2	689	(17)	4652	(16)
142.2	622	(18)	1840	(18)	132.8	599	(16)	2439	(17)	137.3	770P	(13)	3209	(17)	160.6*	151P	(18)	3360	(18)	116.3	718	(15)	4078	(18)
151.0	715	(16)	2372	(16)	0	0	(19)	2372	(18)	126.7	645	(18)	3017	(18)	89.0	524	(17)	3541	(17)	125.4	842	(10)	4383	(17)
111.1	295	(19)	1370	(19)	109.7	360	(18)	1730	(19)	93.8	250	(19)	1980	(19)	0	0	(19)	1980	(19)	DNC	0	(19)	1980	(19)

458.4-KM. TRIANGLE Andrews-Portales-Hobbs					514.0-KM. TRIANGLE Floydada-Caprock Stn.-Hobbs				438.9-KM. QUADRILATERAL Tahoka-Midland-Jal-Hobbs				271.0-KM. TRIANGLE Seagraves-Morton-Hobbs				518.1-KM. TRIANGLE Midland-Kenna-Hobbs			
148.4	987	(3)	3758	(5)	127.1	783	(17)	4541	(4)	127.5	856	(8)	5397	(4)	96.3	890	(14)	6287	(2)	118.3	954	(6)	7241	(1)
145.8	955	(8)	3827	(1)	113.6	621P	(33)	4448	(7)	138.2	997	(2)	5445	(3)	87.4	764	(27)	6209	(4)	113.8	891	(14)	7100	(4)
149.4	999	(2)	3759	(4)	132.3	842	(7)	4601	(3)	136.7	978	(3)	5579	(2)	89.3	791	(24)	6370	(1)	106.3	786	(26)	7156	(3)
142.7	917	(11)	3527	(8)	142.4	956	(2)	4483	(5)	127.9	861	(7)	5344	(5)	83.0	702	(31)	6046	(7)	121.6	1000	(1)	7046	(6)
146.0	957	(5)	3815	(2)	116.7	666	(29)	4481	(6)	127.3	853	(9)	5334	(6)	92.1	830	(20)	6164	(5)	113.5	887	(17)	7051	(5)
137.8	857	(19)	3454	(12)	128.8	802	(14)	4256	(12)	124.8	820	(15)	5076	(10)	101.5	963	(2)	6039	(8)	119.9	976	(2)	7015	(7)
141.2	899	(13)	3440	(13)	123.5	742	(21)	4182	(14)	127.1	851	(10)	5033	(13)	91.6	823	(21)	5856	(12)	111.1	853	(21)	6709	(13)
147.6	977	(4)	3732	(6)	135.7	880	(5)	4612	(2)	116.4	709	(27)	5321	(7)	98.6	922	(10)	6243	(3)	119.3	967	(3)	7210	(2)
140.2	886	(15)	3509	(9)	127.2	784	(16)	4293	(10)	126.7	845	(11)	5138	(8)	99.0	928	(9)	6066	(6)	113.4	885	(18)	6951	(8)
141.2	899	(13)	3539	(7)	124.6	755	(18)	4294	(9)	126.5	843	(12)	5137	(9)	96.7	896	(13)	6033	(9)	100.5	705	(33)	6738	(11)
136.0	835	(24)	3085	(26)	146.3	1000	(1)	4085	(16)	124.4	815	(16)	4900	(15)	94.7	867	(16)	5767	(15)	119.3	967	(3)	6734	(12)
132.3	790	(30)	3505	(10)	122.0	725	(25)	4230	(13)	124.0	810	(18)	5040	(12)	95.2	874	(15)	5914	(11)	117.5	942	(7)	6856	(9)
143.3	924	(9)	3218	(18)	129.1	806	(12)	4024	(18)	125.2	826	(14)	4850	(17)	91.0	800P	(22)	5650	(19)	110.2	841	(23)	6491	(19)
149.5	1000	(1)	3773	(3)	138.0	906	(4)	4679	(1)	138.4	1000	(1)	5679	(1)	225.7*	327	(34)	6006	(10)	104.3	758	(32)	6764	(10)
138.3	863	(18)	3298	(17)	129.6	811	(11)	4109	(15)	120.2	759	(22)	4868	(16)	99.1	930	(8)	5798	(14)	113.8	891	(14)	6689	(14)
137.3	851	(22)	3352	(15)	140.3	932	(3)	4284	(11)	122.0	783	(19)	5067	(11)	85.4	736	(30)	5803	(13)	104.5	761	(30)	6564	(18)
129.9	760	(33)	3501	(11)	128.9	803	(13)	4304	(8)	116.5	711	(25)	5015	(14)	87.1	745P	(29)	5760	(16)	115.0	907	(12)	6667	(15)
146.0	957	(5)	3160	(22)	124.5	754	(20)	3914	(22)	128.9	875	(6)	4789	(20)	86.1	746	(28)	5535	(23)	115.6	916	(8)	6451	(22)
137.6	854	(20)	3374	(14)	105.1	535	(36)	3909	(23)	129.9	888	(5)	4797	(18)	88.6	781	(25)	5578	(20)	114.8	905	(13)	6483	(20)
136.5	841	(23)	3204	(20)	128.3	796	(15)	4000	(19)	120.3	761	(21)	4761	(21)	99.7	938	(7)	5699	(18)	113.7	889	(16)	6588	(16)
140.1	885	(16)	3210	(19)	110.0	590	(34)	3800	(24)	110.3	629	(39)	4429	(27)	97.4	905	(12)	5334	(25)	109.5	831	(24)	6165	(24)
138.7	868	(17)	3127	(23)	114.3	638	(32)	3765	(25)	118.6	638	(37)	4403	(28)	87.5	765	(26)	5168	(28)	115.6	916	(8)	6084	(26)
125.4	705	(37)	3112	(24)	131.4	831	(9)	3943	(20)	111.7	647	(33)	4590	(23)	100.6	951	(4)	5541	(22)	106.2	785	(27)	6326	(23)
114.3	569	(40)	3009	(27)	123.1	738	(24)	3747	(26)	124.3	814	(17)	4561	(24)	100.8	954	(3)	5515	(24)	118.7	959	(5)	6474	(21)
122.0	663	(38)	3312	(16)	121.9	724	(26)	4036	(17)	120.0	757	(23)	4793	(19)	99.8	939	(6)	5732	(17)	111.0	852	(22)	6584	(17)
146.0	957	(5)	2976	(29)	123.3	740	(23)	3716	(28)	125.6	831	(13)	4547	(25)	104.1	1000	(1)	5547	(21)	94.0	615	(38)	6162	(25)
135.5	829	(25)	2648	(37)	124.6	755	(18)	3403	(34)	130.1	890	(4)	4293	(31)	94.3	862	(17)	5155	(29)	105.8	779	(28)	5934	(30)
142.1	910	(12)	2870	(30)	134.9	871	(6)	3741	(27)	118.8	741	(24)	4482	(26)	92.4	835	(19)	5317	(26)	104.9	767	(29)	6084	(26)
132.9	797	(29)	3092	(25)	131.2	829	(10)	3921	(21)	116.5	711	(25)	4632	(22)	125.0*	139	(40)	4771	(33)	115.1	909	(11)	5680	(31)
142.9	919	(10)	2984	(28)	114.4	640	(31)	3624	(30)	113.9	676	(30)	4300	(30)	99.9	941	(5)	5241	(27)	111.5	759P	(31)	6000	(28)
131.1	775	(31)	2693	(35)	117.0	669	(28)	3362	(35)	120.7	766	(20)	4128	(34)	98.3	918	(11)	5046	(30)	115.6	916	(8)	5962	(29)
133.9	809	(28)	2847	(31)	115.9	656	(30)	3503	(32)	111.9	650	(32)	4153	(32)	92.8	840	(18)	4993	(31)	97.0	656	(37)	5649	(32)
130.6	769	(32)	2805	(32)	131.7	835	(8)	3640	(29)	115.4	696	(29)	4336	(29)	139.4*	166	(38)	4502	(34)	112.9	878	(20)	5380	(33)
134.3	814	(27)	3196	(21)	268.3*	160	(38)	3356	(36)	116.3	708	(28)	4064	(35)	135.5*	159	(39)	4223	(37)	113.4	885	(18)	5108	(36)
137.5	853	(21)	2769	(33)	123.4	741	(22)	3510	(31)	110.7	634	(38)	4144	(33)	151.6*	189	(37)	4333	(36)	98.6	679	(35)	5012	(37)
127.8	734	(35)	2730	(34)	118.2	682	(27)	3412	(33)	111.2	640	(36)	4052	(36)	89.5	794	(23)	4846	(32)	487.8*	291P	(39)	5137	(35)
128.8	747	(34)	2692	(36)	103.0	501P	(37)	3193	(37)	113.2	667	(31)	3860	(37)	75.3	593	(33)	4453	(35)	106.7	792	(25)	5245	(34)
134.8	820	(26)	2574	(38)	251.6*	147	(39)	2721	(39)	111.5	644	(34)	3365	(39)	75.9	601	(32)	3966	(38)	98.9	683	(34)	4649	(38)
127.6	732	(36)	2471	(39)	109.9	589	(35)	3060	(38)	111.3	642	(35)	3702	(38)	177.0*	236	(36)	3938	(39)	447.5*	273	(40)	4211	(39)
117.2	605	(39)	1941	(40)	251.4*	147	(39)	2088	(40)	93.1	401	(41)	2489	(40)	66.3*	30	(42)	2519	(40)	98.5	677	(36)	3196	(40)
447.2*	261	(42)	1616	(41)	234.8*	135	(41)	1751	(41)	96.6	447	(40)	2198	(41)	76.2*	49	(41)	2247	(41)	401.1*	241	(41)	2488	(41)
110.5	523	(41)	1561	(42)	0	0	(42)	1561	(42)	268.1*	150	(42)	1711	(42)	271.0*	311P	(35)	2022	(42)	256.6*	142	(42)	2164	(42)

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JULY 7
623.7-KM. TRIANGLE
Pecos-Post-Hobbs

Speed KPH	Daily Score		Cum. Score	
137.2	1000	(1)	8944	(1)
134.9	970	(2)	8356	(2)
133.6	953	(6)	8224	(3)
133.9	957	(5)	8172	(4)
134.5	965	(4)	7797	(6)
132.6	940	(8)	7844	(5)
130.0	906	(11)	7770	(7)
129.8	904	(12)	7282	(8)
132.8	943	(7)	7070	(10)
132.3	936	(9)	7155	(9)
129.5	900	(13)	7015	(11)
126.1	856	(14)	6916	(12)
134.9	970	(2)	6858	(13)
131.3	923	(10)	6776	(14)
129.9	805P	(16)	6296	(15)
121.6	798	(17)	5450	(16)
126.0	855	(15)	4933	(18)
108.8	632	(18)	5015	(17)
155.7*	53	(19)	2033	(19)

JULY 8
617.4-KM. TRIANGLE
Ft. Stockton-Tahoka-Hobbs

Speed KPH	Daily Score		Cum. Score	
142.0	964	(4)	9908	(1)
144.9	1000	(1)	9356	(2)
143.8	986	(3)	9210	(3)
134.6	873	(10)	9045	(4)
139.8	937	(6)	8734	(7)
140.1	941	(5)	8785	(5)
144.0	988	(2)	8758	(6)
132.5	848	(13)	8130	(8)
138.6	922	(7)	7992	(10)
132.6	849	(12)	8004	(9)
137.3	906	(9)	7921	(11)
138.4	920	(8)	7836	(12)
133.0	854	(11)	7712	(13)
132.0	841	(15)	7617	(14)
116.5	651	(18)	6947	(15)
132.1	843	(14)	6293	(16)
126.4	773	(16)	5706	(18)
124.8	753	(17)	5768	(17)
549.6*	255	(19)	2288	(19)

JULY 9
656.5-KM. TRIANGLE
Midland-Tulia-Hobbs

Speed KPH	Daily Score		Cum. Score	
152.5	1000	(1)	10908	(1)
147.3	939	(3)	10295	(2)
141.7	874	(7)	10084	(3)
131.2	751	(17)	9796	(4)
141.5	871	(9)	9605	(7)
147.0	935	(4)	9720	(6)
151.9	993	(2)	9751	(5)
137.9	829	(11)	8959	(8)
145.8	896P	(5)	8888	(9)
141.8	875	(6)	8879	(10)
136.6	814	(13)	8735	(11)
137.6	826	(12)	8662	(12)
136.0	807	(14)	8519	(13)
132.7	769	(16)	8386	(14)
139.4	847	(10)	7794	(15)
141.6	873	(8)	7166	(16)
134.6	791	(15)	6497	(17)
124.8	677	(18)	6445	(18)
472.9*	202	(19)	2490	(19)

JULY 10
656.8-KM. TRIANGLE
Tahoka-Vega-Hobbs

Speed KPH	Daily Score		Cum. Score	
129.7	876	(4)	11784	(1)
139.4	1000	(1)	11295	(2)
129.3	871	(6)	10955	(3)
123.0	791	(11)	10587	(4)
132.4	910	(3)	10515	(5)
123.1	792	(10)	10512	(6)
115.8	699	(16)	10450	(7)
129.2	870	(7)	9829	(8)
132.6	913	(2)	9801	(9)
126.9	840	(8)	9719	(10)
122.8	788	(13)	9523	(11)
121.1	766	(14)	9428	(12)
122.9	789	(12)	9308	(13)
116.5	708	(15)	9094	(14)
126.4	834	(9)	8628	(15)
108.5	606	(17)	7772	(16)
129.6	875	(5)	7372	(17)
104.7	557	(18)	7002	(18)
487.3*	209	(19)	2699	(19)

521.4-KM. QUADRILATERAL
Monahans-Big Spring-Brownfield-Hobbs

Speed KPH	Daily Score		Cum. Score	
118.2	847	(13)	8088	(3)
115.9	817	(17)	7917	(5)
129.9	1000	(1)	8156	(1)
126.0	949	(4)	7995	(4)
116.6	826	(16)	7877	(6)
115.4	810	(18)	7825	(7)
121.9	895	(10)	7604	(11)
122.6	904	(8)	8114	(2)
117.4	836	(15)	7787	(8)
124.4	928	(6)	7666	(9)
121.5	890	(11)	7624	(10)
110.4	745	(24)	7601	(12)
124.3	926	(7)	7417	(14)
110.1	641P	(32)	7405	(15)
106.0	687	(29)	7376	(16)
112.3	770	(21)	7334	(18)
113.8	789	(19)	7456	(13)
122.5	903	(9)	7354	(17)
109.8	737	(26)	7220	(20)
107.8	711	(28)	7299	(19)
125.7	945	(5)	7110	(23)
129.6	996	(2)	7080	(24)
119.7	866	(12)	7192	(22)
109.6	734	(27)	7208	(21)
0	0	(42)	6584	(30)
117.9	843	(14)	7005	(25)
110.2	742	(25)	6676	(27)
104.2	664	(30)	6748	(26)
126.7	958	(3)	6638	(29)
102.6	643	(31)	6643	(28)
99.7	605	(35)	6567	(31)
110.6	748	(23)	6397	(32)
102.0	635	(33)	6015	(33)
113.1	780	(20)	5888	(34)
111.2	755	(22)	5767	(36)
98.0	583	(36)	5720	(37)
97.1	571	(37)	5816	(35)
96.5	563	(38)	5212	(38)
99.9	608	(34)	4819	(39)
416.3*	250	(39)	3446	(40)
416.3*	245P	(40)	2733	(41)
302.5*	162P	(41)	2326	(42)

539.1-KM. QUADRILATERAL
Pecos-Midland-Brownfield-Hobbs

Speed KPH	Daily Score		Cum. Score	
117.7	899	(6)	8987	(2)
124.6	1000	(1)	8917	(4)
112.0	815	(18)	8971	(3)
118.4	909	(5)	8904	(5)
120.2	936	(4)	8813	(6)
106.2	730	(28)	8555	(8)
115.7	869	(8)	8473	(10)
116.6	883	(7)	8997	(1)
111.6	809	(21)	8596	(7)
112.4	821	(15)	8487	(9)
106.0	727	(29)	8351	(12)
111.7	811	(20)	8412	(11)
115.1	861	(9)	8278	(15)
118.8	815P	(18)	8220	(16)
121.7	958	(2)	8334	(13)
105.9	725	(30)	8059	(18)
113.9	843	(11)	8299	(14)
104.0	698	(33)	8052	(19)
112.8	827	(13)	8047	(20)
114.7	855	(10)	8154	(17)
120.3	937	(3)	8047	(20)
113.4	836	(12)	7916	(24)
110.7	796	(22)	7988	(22)
108.1	758	(24)	7966	(23)
108.4	762	(23)	7346	(29)
104.3	702	(32)	7707	(25)
103.4	689	(35)	7365	(28)
107.9	755	(25)	7503	(26)
112.3	819	(17)	7457	(27)
94.4	557	(37)	7200	(31)
103.7	693	(34)	7260	(30)
104.5	705	(31)	7102	(32)
112.4	821	(15)	6836	(33)
106.5	734	(27)	6622	(34)
112.7	825	(14)	6592	(35)
107.6	750	(26)	6470	(37)
103.0	683	(36)	6499	(36)
82.6	383	(40)	5595	(38)
86.1	435	(39)	5254	(39)
0	0	(42)	3446	(40)
76.2	289	(41)	3022	(41)
90.5	499	(38)	2825	(42)

559.4-KM. QUADRILATERAL
Wink-Lamesa-Littlefield-Hobbs

Speed KPH	Daily Score		Cum. Score	
132.7	987	(3)	9974	(1)
126.4	903	(5)	9820	(2)
121.6	839	(23)	9810	(3)
125.5	891	(11)	9795	(4)
124.4	876	(17)	9689	(5)
125.7	893	(8)	9448	(9)
133.2	994	(2)	9467	(8)
102.0	577	(38)	9574	(6)
124.5	877	(15)	9473	(7)
124.9	883	(14)	9370	(10)
133.7	1000	(1)	9351	(11)
123.9	869	(21)	9281	(12)
123.4	863	(22)	9141	(14)
127.8	921	(4)	9141	(14)
118.9	803	(29)	9137	(16)
124.1	872	(20)	8931	(21)
124.3	875	(18)	9174	(13)
126.3	901	(6)	8953	(18)
126.1	899	(7)	8946	(19)
118.7	800	(31)	8954	(17)
125.3	888	(12)	8935	(20)
125.7	893	(8)	8809	(22)
120.7	817P	(27)	8805	(23)
120.5	824	(26)	8790	(24)
125.7	893	(8)	8239	(28)
118.6	799	(32)	8506	(25)
125.2	887	(13)	8252	(27)
124.5	877	(15)	8380	(26)
113.5	730	(35)	8187	(29)
120.9	829	(25)	8029	(31)
116.6	772	(33)	8032	(30)
121.0	831	(24)	7933	(32)
118.9	803	(29)	7639	(33)
124.2	873	(19)	7495	(34)
115.8	761	(34)	7353	(35)
119.7	813	(28)	7283	(36)
0	0	(42)	6499	(37)
112.9	722	(36)	6317	(38)
91.7	439	(39)	5693	(39)
108.6	665	(37)	4111	(40)
522.8*	265	(41)	3287	(41)
89.7	413	(40)	3238	(42)

526.1-KM. TRIANGLE
Seagraves-Hereford-Hobbs

Speed KPH	Daily Score		Cum. Score	
105.4	806	(29)	10780	(1)
115.6	951	(8)	10771	(2)
112.3	904	(11)	10714	(3)
109.6	866	(19)	10661	(4)
105.7	810	(28)	10499	(5)
119.0	1000	(1)	10448	(6)
116.6	965	(6)	10432	(7)
108.7	853	(21)	10427	(8)
110.1	873	(18)	10346	(9)
117.1	972	(4)	10342	(10)
108.2	846	(22)	10197	(11)
112.2	903	(12)	10184	(12)
116.8	968	(5)	10109	(13)
114.1	930	(9)	10071	(14)
110.8	883	(16)	10020	(15)
118.3	990	(2)	9921	(16)
101.1	744	(34)	9918	(17)
116.3	961	(7)	9914	(18)
111.3	890	(15)	9836	(19)
110.2	874	(17)	9828	(20)
104.9	799	(30)	9734	(21)
112.0	900	(13)	9709	(22)
105.9	813	(26)	9618	(23)
106.4	820	(24)	9610	(24)
117.7	981	(3)	9220	(25)
96.3	676	(38)	9182	(26)
112.4	905	(10)	9157	(27)
102.0	757	(31)	9137	(28)
111.6	894	(14)	9081	(29)
107.5	836	(23)	8865	(30)
100.6	737	(36)	8769	(31)
101.4	749	(32)	8682	(32)
100.9	742	(35)	8381	(33)
109.0	857	(20)	8352	(34)
101.2	746	(33)	8099	(35)
105.8	811	(27)	8094	(36)
96.8	683	(37)	7182	(37)
410.2*	243	(40)	6560	(38)
106.0	814	(25)	6507	(39)
465.8*	281	(39)	4392	(40)
336.3*	193	(42)	3480	(41)
377.0*	221	(41)	3459	(42)

(continued on following page)

THE 18TH WORLD SOARING CHAMPIONSHIPS

15-METER CLASS

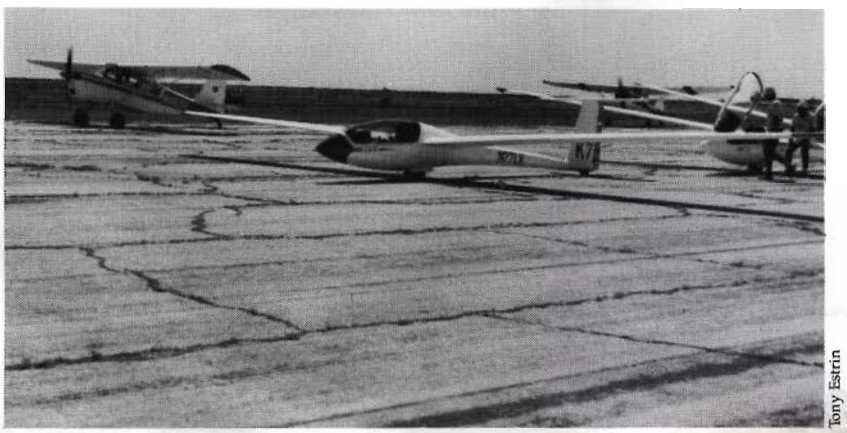
	Pilot	Country	Contest Number	Sailplane	JUNE 27 433.2-KM. TRIANGLE Littlefield–Jal–Hobbs Speed KPH	Daily Score	JUNE 28 375.7-KM. TRIANGLE Pecos–Andrews–Hobbs Speed KPH	Daily Score	Cum. Score	JUNE 29 409.3-KM. TRIANGLE Jal–Big Spring–Hobbs Speed KPH	Daily Score	Cum. Score
1.	MUSTERS, KEES	Netherlands	MS	Ventus A	384.4*	1000 (1)	120.1	924 (7)	1924 (1)	152.0	859 (13)	2783 (1)
2.	STRIEDIECK, KARL	U.S.A.	KS	AS-W 20B	351.9*	903 (4)	118.6	901 (13)	1804 (6)	152.6	865 (11)	2669 (5)
3.	GOUDRIAAN, LAURENS	S. Africa	39	AS-W 20	335.7*	854 (8)	124.9	996 (2)	1850 (4)	156.9	913 (4)	2763 (2)
4.	PARE, DAAN	Netherlands	NL	Ventus B	286.2*	706 (38)	123.0	967 (4)	1673 (15)	156.1	905 (6)	2578 (11)
5.	BACK, HOLGER	W. Germany	7L	Ventus A	335.7*	854 (8)	118.9	906 (12)	1760 (10)	136.2	683 (37)	2443 (21)
6.	KUUSISTO, SIMO	Finland	EM	AS-W 20	362.0*	933 (2)	119.9	921 (9)	1854 (3)	142.6	729P (30)	2583 (10)
7.	SORENSEN, OVE	Denmark	OY	Ventus B	335.7*	854 (8)	119.0	907 (11)	1761 (9)	156.1	905 (6)	2666 (6)
8.	HOLIGHAUS, KLAUS	W. Germany	5D	Ventus A	332.1*	844 (14)	120.1	924 (7)	1768 (8)	155.0	892 (9)	2660 (7)
9.	SCHULTHESS, ALFRED	Switzerland	C4	Ventus B	330.5*	839 (15)	117.5	885 (15)	1724 (12)	140.9	735 (28)	2459 (18)
10.	GIMMEY, RAY	U.S.A.	1M	AS-W 20B	337.7*	860 (7)	125.2	1000 (1)	1860 (2)	151.8	857 (14)	2717 (4)
11.	WERNEBURG, HAL	Canada	28	Ventus B	326.2*	826 (19)	113.9	831 (20)	1657 (17)	145.6	787 (21)	2444 (20)
12.	HAMMERLE, ANDREAS	Austria	YF	Ventus B	324.8*	822 (21)	112.2	805 (23)	1627 (21)	142.4	752 (27)	2379 (24)
13.	CUBLEY, TERRY	Australia	TR	AS-W 20	305.8*	765 (27)	116.1	864 (17)	1629 (20)	152.1	860 (12)	2489 (16)
14.	BROCKHOFF, BRUCE	Australia	QE	Ventus A	334.7*	851 (12)	123.7	978 (3)	1829 (5)	155.9	902 (8)	2731 (3)
15.	HUYBRECKX, EDDY	Belgium	9R	Ventus A	324.8*	822 (21)	114.7	843 (18)	1665 (16)	150.9	847 (16)	2512 (14)
16.	PETER, ERNST-GERNOT	W. Germany	EA	AS-W 20	323.8*	819 (23)	119.9	921 (9)	1740 (11)	151.7	855 (15)	2595 (9)
17.	RONNESTAD, EINAR	Norway	4T	Ventus B	330.5*	839 (15)	103.4	674 (36)	1513 (28)	161.5	965 (2)	2478 (17)
18.	ANDERSON, GRAHAM	S. Africa	SL	AS-W 20	334.5*	851 (12)	105.0	697 (33)	1548 (25)	156.6	910 (5)	2458 (19)
19.	CENTKA, JANUSZ	Poland	ZI	Zuni 2	318.8*	804 (24)	117.8	889 (14)	1693 (13)	148.7	822 (18)	2515 (13)
20.	TIMMERMANS, ANTHONY	New Zealand	GW	Ventus B	291.3*	722 (33)	110.9	786 (26)	1508 (29)	164.7	1000 (1)	2508 (15)
21.	SCHUBERT, EKKEHARD	Brazil	TM	Ventus	327.2*	829 (18)	103.0	668 (38)	1497 (31)	145.1	782 (22)	2279 (28)
22.	SCHROEDER, MARK	France	SM	AS-W 20B	269.9*	658 (41)	103.5	675 (35)	1333 (39)	146.8	801 (20)	2134 (36)
23.	JUNQUEIRA, CLAUDIO	Brazil	VF	Ventus A	338.2*	862 (6)	109.4	763 (28)	1625 (22)	147.1	804 (19)	2429 (22)
24.	GILES, MIKE	Australia	WT	Ventus B	301.5*	752 (30)	120.2	925 (6)	1677 (14)	137.6	698 (34)	2375 (25)
25.	KUIPER, BERT	Netherlands	DF	Ventus B	330.5*	839 (15)	122.2	955 (5)	1794 (7)	150.4	841 (17)	2635 (8)
26.	WELLS, MARTYN	U.K.	80	Ventus B	335.7*	854 (8)	96.6	557P (43)	1411 (35)	143.7	766 (24)	2177 (34)
27.	GHIORZO, STEFANO	Italy	BS	Ventus B	263.4*	638 (42)	111.9	801 (24)	1439 (33)	143.6	765 (25)	2204 (30)
28.	WIDMER, JOAO	Brazil	BR	AS-W 20	305.0*	763 (28)	92.8	515 (45)	1278 (42)	139.0	714 (33)	1992 (39)
29.	SCHUBERT, ALF	Austria	1F	Ventus B	338.5*	863 (5)	110.3	777 (27)	1640 (19)	154.0	881 (10)	2521 (12)
30.	STEPHENS, LINDSEY	New Zealand	B	Ventus A	263.4*	638 (42)	114.6	841 (19)	1479 (32)	160.2	950 (3)	2429 (22)
31.	KRUEGER, WILFRIED	Canada	K2	AS-W 20B	325.8*	825 (20)	113.1	819 (21)	1644 (18)	136.3	684 (36)	2328 (26)
32.	POZNIAK, HENRYK	Poland	ZS	Zuni 2	306.7*	768 (26)	109.4	763 (28)	1531 (26)	134.8	667 (38)	2198 (31)
33.	WERNEBURG, ULRICH	Canada	MZ	AS-W 20	276.8*	678 (40)	117.5	885 (15)	1563 (24)	139.6	721 (31)	2284 (27)
34.	COLOMBO, VITTORIO	Italy	A7	AS-W 20B	303.2*	757 (29)	95.1	549 (44)	1306 (40)	115.8	455 (46)	1761 (44)
35.	TAIMIOJA, ANTTI	Finland	S	AS-W 20	307.7*	771 (25)	99.1	609 (41)	1380 (37)	143.0	758 (26)	2138 (35)
36.	KLUK, STANISLAW	Poland	M7	Zuni 2	290.9*	720 (35)	97.4	584 (42)	1304 (41)	137.3	695 (35)	1999 (38)
37.	MATTANO, AIMAR	Argentina	XS	AS-W 20	362.0*	933 (2)	103.7	678 (34)	1611 (23)	126.7	577 (41)	2188 (32)
38.	LAMM, MAX	Switzerland	ML	AS-W 20B	290.9*	720 (35)	111.8	799 (25)	1519 (27)	121.4	518 (45)	2037 (37)
39.	SILESMO, IRVE	Sweden	YG	Ventus	284.8*	702 (39)	105.3	702 (32)	1404 (36)	144.9	780 (23)	2184 (33)
40.	URBANCIC, LUIS	Argentina	YO	Ventus B	299.6*	746 (31)	108.9	756 (30)	1502 (30)	140.8	734 (29)	2236 (29)
41.	HAGGENMULLER, REINHARD	Austria	RJ	AS-W 20	204.5*	462 (45)	101.5	645 (40)	1107 (46)	139.2	716 (32)	1823 (43)
42.	ENYA, JIN	Japan	HA	AS-W 20	204.5*	462 (45)	112.8	814 (22)	1276 (43)	134.4	663 (39)	1939 (41)
43.	DIMENTSTEIN, SHMUEL	Israel	1L	LS-3a	291.3*	722 (33)	103.1	654P (39)	1376 (38)	128.5	597 (40)	1973 (40)
44.	DEWACHTER, EMILE	Belgium	2G	LS-3a	292.2*	724 (32)	105.4	703 (31)	1427 (34)	115.7	454 (47)	1881 (42)
45.	OCAMPO, JORGE	Argentina	ST	AS-W 20	263.4*	638 (42)	91.0	488 (46)	1126 (45)	125.3	561 (43)	1687 (45)
46.	SADA, ROBERTO	Mexico	4	LS-3	108.7*	176 (48)	77.6	287 (48)	463 (48)	0	0 (48)	463 (48)
47.	ODA, MOTOHARU	Japan	K7	LS-3a	290.9*	720 (35)	82.1	340P (47)	1060 (47)	126.2	571 (42)	1631 (47)
48.	RADIC, SRDJAN	Chile	YP	AS-W 20	204.5*	462 (45)	103.1	669 (37)	1131 (44)	127.9	540P (44)	1671 (46)

* An asterisk indicates distance (kilometers) flown instead of speed (kph), as a result of the pilot having failed to complete the course.

(Continued from page 35)

was a lovely cloudstreet that just went on and on. But soon after the turn I ran into some of the worst turbulence I have ever experienced. I was doing about 220 kph when I hit it—a solid bang that felt like about 10 g's."

Granville's 133.7 kph for the circuit entitled him to bring home Debbie's wedding present.



Tony Estrin

The LS-3a of Motoharu Oda of the Japanese team, competing in the 15-Meter Class, is on the grid and about ready to take a tow.

HOBBS, NEW MEXICO

JUNE 30 476.5-KM. TRIANGLE Wink-Kenna-Hobbs					JULY 2 551.6-KM. TRIANGLE Hereford-Kenna-Hobbs					JULY 3 457.9-KM. QUADRILATERAL Tahoka-Lamesa-Wink-Hobbs					JULY 4 276.5-KM. TRIANGLE Caprock Stn.-Morton-Hobbs					JULY 6 557.3-KM. TRIANGLE Midland-Portales-Hobbs				
Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score	
162.4	1000	(1)	3783	(1)	125.1	974	(5)	4757	(1)	147.7	991	(2)	5748	(1)	107.1	982	(5)	6730	(1)	118.9	956	(6)	7686	(1)
155.6	925	(2)	3594	(2)	108.1	861	(18)	4455	(4)	140.1	895	(18)	5350	(5)	106.3	972	(6)	6322	(3)	121.0	985	(2)	7307	(3)
144.5	802	(20)	3565	(4)	111.0	880	(16)	4445	(5)	142.8	929	(10)	5374	(4)	108.6	990P	(2)	6364	(2)	118.1	945	(9)	7309	(2)
140.5	757	(28)	3335	(13)	126.0	980	(4)	4315	(8)	142.8	929	(10)	5244	(6)	100.1	899	(10)	6143	(6)	115.5	909	(17)	7052	(8)
152.2	887	(4)	3330	(14)	108.9	866	(17)	4196	(11)	143.6	939	(7)	5135	(11)	107.8	990	(2)	6125	(7)	117.3	934	(11)	7059	(7)
140.2	754	(29)	3337	(12)	126.7	985	(3)	4322	(7)	138.7	877	(21)	5199	(9)	102.2	924	(7)	6123	(8)	119.1	959	(5)	7082	(6)
150.6	869	(7)	3535	(5)	122.1	954	(9)	4489	(3)	140.7	903	(15)	5392	(3)	94.6	833	(16)	6225	(5)	114.7	898	(19)	7123	(5)
151.1	875	(5)	3535	(5)	128.4	996	(2)	4531	(2)	139.2	884	(20)	5415	(2)	93.5	820	(17)	6235	(4)	119.4	963	(4)	7198	(4)
149.3	855	(11)	3314	(15)	121.9	953	(10)	4267	(9)	126.3	721	(40)	4988	(16)	108.1	994	(1)	5982	(11)	112.2	864	(20)	6846	(11)
149.6	858	(10)	3575	(3)	460.8*	537	(40)	4112	(15)	143.3	936	(9)	5048	(12)	107.3	984	(4)	6032	(10)	120.4	976	(3)	7008	(9)
147.9	839	(14)	3283	(18)	124.9	973	(6)	4256	(10)	144.8	955	(6)	5211	(8)	96.4	855	(14)	6066	(9)	114.8	899	(18)	6965	(10)
137.5	724	(32)	3103	(24)	123.3	962	(7)	4065	(19)	140.8	904	(14)	4969	(19)	93.5	820	(17)	5789	(18)	116.8	927	(13)	6716	(13)
145.5	813	(18)	3302	(16)	100.4	810	(21)	4112	(15)	142.8	929	(10)	5041	(13)	93.4	819	(21)	5860	(14)	101.1	711	(33)	6571	(16)
144.7	804	(19)	3535	(5)	545.0*	648	(23)	4183	(12)	146.7	979	(3)	5162	(10)	254.9*	438	(42)	5600	(22)	109.2	822	(26)	6422	(21)
151.1	875	(5)	3387	(10)	496.2*	584	(29)	3971	(20)	138.4	874	(23)	4845	(22)	88.0	755	(27)	5600	(22)	118.3	948	(7)	6548	(17)
149.1	853	(12)	3448	(8)	537.2*	637	(24)	4085	(17)	141.1	908	(13)	4993	(15)	93.5	820	(17)	5813	(16)	93.5	606	(38)	6419	(22)
150.2	865	(8)	3343	(11)	475.7*	557	(37)	3900	(23)	135.6	838	(28)	4738	(25)	89.4	772	(25)	5510	(24)	118.0	943	(10)	6453	(20)
136.6	714	(33)	3172	(22)	115.4	910	(12)	4082	(18)	139.7	890	(19)	4972	(18)	98.7	882	(12)	5854	(15)	111.7	857	(21)	6711	(14)
153.7	903	(3)	3418	(9)	115.8	912	(11)	4330	(6)	148.4	900P	(16)	5230	(7)	276.5*	484	(34)	5714	(20)	109.5	827	(25)	6541	(19)
135.8	705	(35)	3213	(21)	518.0*	612	(26)	3825	(26)	146.4	975	(4)	4800	(24)	82.2	686	(31)	5486	(25)	117.2	932	(12)	6418	(23)
145.7	815	(17)	3094	(25)	107.1	854	(19)	3948	(21)	145.8	967	(5)	4915	(20)	96.6	857	(13)	5772	(19)	108.8	817	(27)	6589	(15)
144.3	799	(22)	2933	(31)	123.3	962	(7)	3895	(24)	147.9	994	(1)	4889	(21)	102.1	922	(8)	5811	(17)	116.8	927	(13)	6738	(12)
146.5	824	(16)	3253	(19)	111.2	882	(15)	4135	(13)	136.4	848	(26)	4983	(17)	98.8	883	(11)	5866	(13)	89.2	547	(40)	6413	(24)
141.2	765	(26)	3140	(23)	475.7*	557	(37)	3697	(28)	138.3	872	(24)	4569	(27)	276.5*	484	(34)	5053	(30)	118.2	946	(8)	5999	(27)
132.0	663	(37)	3298	(17)	515.4*	609	(27)	3907	(22)	143.4	937	(8)	4844	(23)	90.3	782	(24)	5626	(21)	116.2	919	(15)	6545	(18)
148.8	849	(13)	3026	(27)	492.3*	579	(35)	3605	(30)	138.5	875	(22)	4480	(29)	261.8*	453	(37)	4933	(31)	122.1	1000	(1)	5933	(30)
149.9	861	(9)	3065	(26)	454.9*	505P	(45)	3570	(31)	132.7	802	(34)	4372	(31)	88.7	763	(26)	5135	(28)	107.9	805	(28)	5940	(29)
139.7	749	(30)	2741	(35)	128.9	1000	(1)	3741	(27)	134.1	819	(31)	4560	(28)	90.4	784	(23)	5344	(26)	106.9	791	(30)	6135	(25)
0	0	(48)	2521	(39)	507.5*	599	(28)	3120	(40)	136.4	848	(26)	3968	(37)	93.5	820	(17)	4788	(34)	110.4	839	(24)	5627	(32)
143.9	795	(23)	3224	(20)	112.4	890	(14)	4114	(14)	140.2	896	(17)	5010	(14)	100.7	906	(9)	5916	(12)	0	0	(48)	5916	(31)
115.0	475	(43)	2803	(33)	459.8*	536	(41)	3339	(34)	135.6	838	(28)	4177	(33)	85.2	722	(29)	4899	(32)	98.4	674	(35)	5573	(34)
142.1	775	(25)	2973	(30)	114.2	902	(13)	3875	(25)	135.4	836	(30)	4711	(26)	261.8*	453	(37)	5164	(27)	111.5	854	(22)	6018	(26)
135.9	707	(34)	2991	(29)	368.4*	417	(47)	3408	(33)	137.0	756P	(38)	4164	(35)	257.4*	444	(40)	4608	(38)	116.1	917	(16)	5525	(35)
137.6	725	(31)	2486	(43)	109.8	847P	(20)	3333	(35)	133.5	812	(32)	4145	(36)	87.8	753	(28)	4898	(33)	109.7	729P	(31)	5627	(32)
141.1	764	(27)	2902	(32)	475.7*	557	(37)	3459	(32)	132.9	804	(33)	4263	(32)	95.3	842	(15)	5105	(29)	110.5	840	(23)	5945	(28)
143.4	790	(24)	2789	(34)	456.7*	532	(42)	3321	(36)	136.6	851	(25)	4172	(34)	267.0*	464	(36)	4636	(36)	92.4	591	(39)	5227	(37)
146.8	827	(15)	3015	(28)	521.8*	617	(25)	3632	(29)	132.4	798	(35)	4430	(30)	200.4*	322	(45)	4752	(35)	501.9*	292	(44)	5044	(38)
113.7	461	(44)	2498	(41)	496.2*	584	(29)	3082	(41)	101.5	407	(48)	3489	(44)	261.8*	453	(37)	3942	(44)	107.1	794	(29)	4736	(43)
115.9	485	(42)	2669	(36)	456.2*	531	(43)	3200	(38)	125.0	704	(42)	3904	(39)	82.9	695	(30)	4599	(39)	101.3	714	(32)	5313	(36)
92.2	281	(47)	2517	(40)	95.6	778	(22)	3295	(37)	121.0	654	(43)	3949	(38)	131.3*	174	(48)	4123	(42)	100.9	708	(34)	4831	(40)
132.2	666	(36)	2489	(42)	496.2*	584	(29)	3073	(42)	130.3	771	(36)	3844	(41)	257.4*	444	(40)	4288	(41)	94.8	624	(37)	4912	(39)
130.4	646	(39)	2585	(37)	422.1*	487	(46)	3072	(43)	129.4	760	(37)	3832	(42)	91.7	799	(22)	4631	(37)	262.4*	137	(47)	4768	(42)
125.2	588	(40)	2561	(38)	496.2*	584	(29)	3145	(39)	125.3	708	(41)	3853	(40)	81.0	672	(32)	4525	(40)	501.9*	292	(44)	4817	(41)
120.0	531	(41)	2412	(45)	454.9*	530	(44)	2942	(45)	128.2	745	(39)	3687	(43)	252.8*	434	(43)	4121	(43)	459.8*	265	(46)	4386	(45)
110.2	422	(45)	2109	(46)	368.4*	417	(47)	2526	(47)	114.0	565	(45)	3091	(46)	160.6*	237	(47)	3328	(46)	84.5	483	(42)	3811	(46)
131.8	661	(38)	1124	(48)	496.2*	584	(29)	1708	(48)	120.8	651	(44)	2359	(48)	89.3	671P	(33)	3030	(48)	84.8	487	(41)	3517	(48)
104.2	356	(46)	1987	(47)	496.2*	584	(29)	2571	(46)	103.4	429P	(47)	3000	(47)	171.4*	260	(46)	3260	(47)	83.7	447P	(43)	3707	(47)
144.4	801	(21)	2472	(44)	486.9*	572	(36)	3044	(44)	103.4	431	(46)	3475	(45)	232.8*	391	(44)	3866	(45)	95.7	637	(36)	4503	(44)

Figures in parentheses indicate daily and cumulative standings. DNC means did not compete. P means Penalty.

DAY 12, JULY 10

OPEN CLASS: Tahoka - Vega - Hobbs: 407.2 mi./ 656.8 km.
15-METER CLASS: Littlefield - Vega - Hobbs: 360.0 mi./579.9 km.
STANDARD CLASS: Seagraves - Hereford - Hobbs: 326.2 mi./526.1 km.

On the morning of the last day it seemed certain that the U.S. Team would be the only team with all of its pilots in the Top-10 Circle at the contests' end. But what about champions? Was there any chance?

In Open Class, Ingo Renner's unparalleled performance and 613-point lead assured him of the title, World Open Class Soaring Champion. And even though Karl Striedieck had scratched his way to cumulative 2nd place in the 15-Meter Class, Kees Musters' 236-point lead left little doubt that he would take the 15-Meter Trophy home with him to Holland.

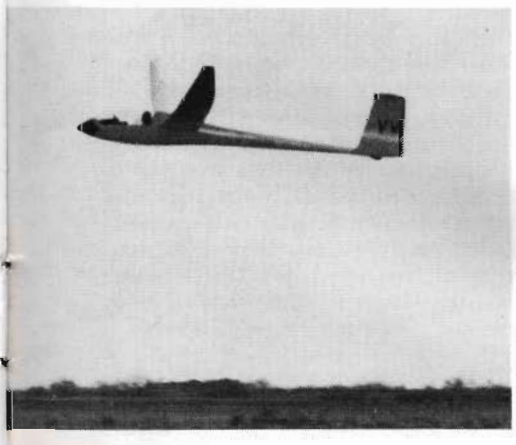
Hope still glimmered in the U.S. Standard team, however. Denmark's Stig Oye was in overall 1st place with a cumulative 154-point lead over Tom Beltz. Such difference had been overcome in the past. "I knew Tom was closest," said teammate Eric Mozer, "so I said, 'Tommy, I'll go out early and we can bracket the day. I'll tell you what's happening out there.' Tommy left about 30 minutes after me. He knew what was going on ahead of him and he soon started creeping up on me."

(Continued on page 40)

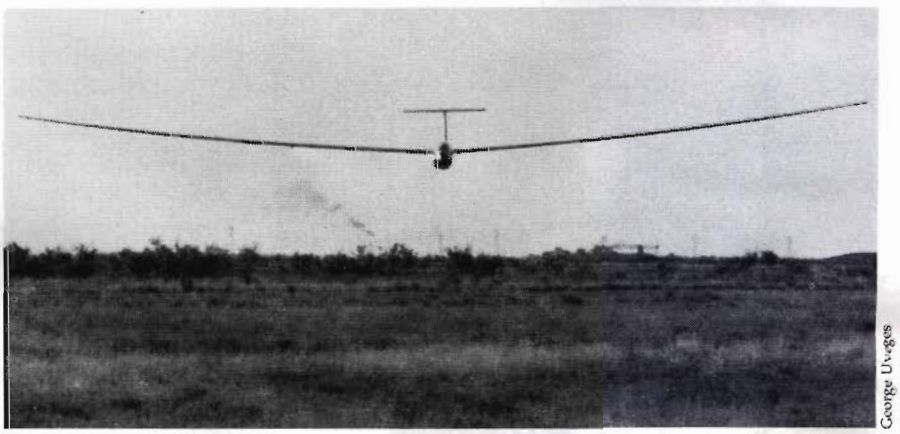
Visitors unfamiliar with sailplanes could be forgiven for thinking they flap their wings, but clearly, the photo at far right shows that the wings are far too long for that!

JUNE 21–JULY 11, 1983

JULY 7 574.4-KM. QUADRILATERAL Pecos-Midland-Tahoka-Hobbs					JULY 8 573.2-KM. TRIANGLE Ft. Stockton-Brownfield-Hobbs					JULY 9 608.6-KM. TRIANGLE Andrews-Hereford-Hobbs					JULY 10 579.9-KM. TRIANGLE Littlefield-Vega-Hobbs				
Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score		Speed KPH	Daily Score		Cum. Score	
130.5	973	(7)	8659	(1)	130.1	884	(7)	9543	(1)	138.0	932	(5)	10475	(1)	110.9	784	(24)	11259	(1)
130.9	978	(5)	8285	(3)	135.4	954	(2)	9239	(2)	143.3	1000	(1)	10239	(2)	121.6	906	(11)	11145	(2)
131.2	982	(3)	8291	(2)	119.2	740	(29)	9031	(4)	136.1	908	(9)	9939	(4)	109.7	770	(25)	10709	(3)
129.4	957	(9)	8009	(6)	127.7	852	(9)	8861	(6)	140.1	959	(2)	9820	(5)	111.1	786	(22)	10606	(4)
125.5	903	(15)	7962	(7)	124.0	803	(12)	8765	(7)	135.6	902	(12)	9667	(7)	123.7	930	(7)	10597	(5)
125.2	799P	(31)	7881	(8)	120.9	762	(23)	8643	(8)	138.9	944	(3)	9587	(8)	125.8	954	(3)	10541	(6)
129.6	960	(8)	8083	(5)	122.2	780	(14)	8863	(5)	135.7	903	(11)	9766	(6)	98.5	642	(31)	10408	(7)
129.4	957	(9)	8155	(4)	138.9	1000	(1)	9155	(3)	133.9	880	(15)	10035	(3)	521.8*	362	(43)	10397	(8)
131.3	984	(2)	7830	(10)	120.8	761	(24)	8591	(10)	127.3	795	(29)	9386	(11)	123.3	925	(8)	10311	(9)
117.1	787	(32)	7795	(11)	114.3	675	(36)	8470	(13)	133.2	871	(17)	9341	(12)	124.3	937	(6)	10278	(10)
123.2	872	(22)	7837	(9)	122.2	780	(14)	8617	(9)	128.8	715P	(40)	9332	(13)	118.7	873	(14)	10205	(11)
131.1	981	(4)	7697	(12)	127.0	843	(10)	8540	(11)	132.3	859	(21)	9399	(10)	111.7	793	(20)	10192	(12)
126.3	914	(13)	7485	(15)	126.1	831	(11)	8316	(15)	133.1	870	(18)	9186	(15)	124.5	939	(4)	10125	(13)
121.3	845	(28)	7267	(23)	132.5	916	(3)	8183	(22)	138.0	932	(5)	9115	(18)	129.8	1000	(1)	10115	(14)
125.1	898	(18)	7446	(17)	121.4	769	(18)	8215	(19)	137.0	920	(7)	9135	(17)	124.5	939	(4)	10074	(15)
132.5	1000	(1)	7419	(19)	121.3	768	(19)	8187	(20)	132.9	867	(19)	9054	(19)	122.7	919	(10)	9973	(16)
129.2	955	(11)	7408	(21)	121.9	776	(17)	8184	(21)	130.8	840	(24)	9024	(21)	119.4	881	(13)	9905	(17)
125.8	908	(14)	7619	(13)	122.1	778	(16)	8397	(14)	130.4	835	(25)	9232	(14)	98.2	638	(33)	9870	(18)
123.1	870	(23)	7411	(20)	130.3	887	(6)	8298	(16)	132.9	867	(19)	9165	(16)	102.3	685	(29)	9850	(19)
127.5	931	(12)	7349	(22)	129.6	877	(8)	8226	(18)	128.6	812	(28)	9038	(20)	111.1	786	(22)	9824	(20)
124.0	883	(20)	7472	(16)	120.3	755	(26)	8227	(17)	122.6	735	(39)	8962	(22)	116.3	845	(16)	9807	(21)
122.3	859	(25)	7597	(14)	131.4	901	(4)	8498	(12)	135.6	902	(12)	9400	(9)	519.5*	360	(44)	9760	(22)
121.4	847	(27)	7260	(24)	115.8	695	(33)	7955	(24)	126.5	785	(32)	8740	(24)	122.8	920	(9)	9660	(23)
130.8	977	(6)	6976	(25)	116.2	700	(32)	7676	(27)	138.1	934	(4)	8610	(25)	127.9	978	(2)	9588	(24)
124.6	891	(19)	7436	(18)	118.1	725	(31)	8161	(23)	126.2	781	(33)	8942	(23)	93.4	583	(35)	9525	(25)
121.3	845	(28)	6778	(28)	131.3	900	(5)	7678	(26)	138.0	832P	(26)	8510	(27)	118.0	865	(15)	9375	(26)
125.3	901	(16)	6841	(27)	112.3	649	(38)	7490	(28)	130.9	842	(23)	8332	(29)	113.6	814	(19)	9146	(27)
115.0	758	(33)	6893	(26)	123.0	790	(13)	7683	(25)	133.5	875	(16)	8558	(26)	93.1	580	(36)	9138	(28)
123.7	878	(21)	6505	(32)	121.2	766	(20)	7271	(31)	129.3	821	(27)	8092	(30)	115.7	839	(17)	8931	(29)
107.2	650	(40)	6566	(31)	121.0	764	(22)	7330	(30)	131.6	750P	(37)	8080	(31)	111.5	790	(21)	8870	(30)
121.5	848	(26)	6421	(34)	121.1	765	(21)	7186	(32)	122.8	738	(38)	7924	(32)	119.6	883	(12)	8807	(31)
110.6	697	(35)	6715	(29)	118.2	727	(30)	7442	(29)	136.7	916	(8)	8358	(28)	556.7*	388	(39)	8746	(32)
122.6	863	(24)	6388	(35)	120.6	758	(25)	7146	(33)	124.6	761	(34)	7907	(33)	113.7	816	(18)	8723	(33)
120.1	829	(30)	6456	(33)	107.8	589	(43)	7045	(34)	131.0	843	(22)	7888	(34)	103.3	697	(28)	8585	(34)
105.9	632	(43)	6577	(30)	120.2	376P	(47)	6953	(35)	136.0	907	(10)	7860	(35)	104.3	708	(27)	8568	(35)
107.2	650	(40)	5877	(37)	115.8	695	(33)	6572	(37)	134.6	889	(14)	7461	(36)	484.8*	333	(45)	7794	(36)
107.4	653	(39)	5697	(38)	114.8	682	(35)	6379	(39)	123.9	752	(35)	7131	(39)	100.0	659	(30)	7790	(37)
125.2	899	(17)	5635	(39)	120.3	755	(26)	6390	(38)	126.9	790	(31)	7180	(38)	95.0	602	(34)	7782	(38)
113.2	733	(34)	6046	(36)	119.7	747	(28)	6793	(36)	112.2	602	(45)	7395	(37)	552.3*	385	(42)	7780	(39)
106.7	643	(42)	5474	(40)	114.2	674	(37)	6148	(40)	112.3	603	(44)	6751	(40)	93.0	579	(37)	7330	(40)
99.2	539	(46)	5451	(43)	110.3	622	(42)	6073	(42)	114.6	633	(43)	6706	(42)	88.9	532	(38)	7238	(41)
110.4	694	(36)	5462	(42)	110.5	625	(41)	6087	(41)	114.8	635	(42)	6722	(41)	556.7*	388	(39)	7110	(42)
107.7	657	(38)	5474	(40)	93.5	400	(46)	5874	(43)	127.0	792	(30)	6666	(43)	410.4*	276	(46)	6942	(43)
100.8	561	(44)	4947	(44)	112.1	646	(39)	5593	(44)	123.9	752	(35)	6345	(44)	0	0	(47)	6345	(44)
109.3	679	(37)	4490	(46)	110.8	629	(40)	5119	(45)	117.8	674	(41)	5793	(45)	556.7*	388	(39)	6181	(45)
99.0	536	(47)	4053	(48)	101.7	509	(44)	4562	(47)	95.0	382	(47)	4944	(48)	107.1	740	(26)	5684	(46)
100.4	556	(45)	4263	(47)	549.8*	254	(48)	4517	(48)	107.7	519P	(46)	5036	(47)	98.5	642	(31)	5678	(47)
388.9*	172	(48)	4675	(45)	96.7	443	(45)	5118	(46)	0	0	(48)	5118	(46)	0	0	(47)	5118	(48)



George Uveges



George Uveges

(Continued from page 38)

Late that afternoon excitement grew at the airport when Beltz arrived home with one of the day's faster speeds while Stig Oye was still out on course. As the minutes chipped away at his points, Stig's lead narrowed: . . . 125 . . . 100 . . . 75 . . . 40 . . . 25 . . . .

Heads swiveled upward as Stig's LS-4 swished low over the hangar on its way to the finish line where Charlie Spratt awaited, clock in hand. *"Mark!"* Charlie barked. "Good finish, *Bravo Hotel.*" His last-moment finish left Tom Beltz nine points and a few seconds short of the Standard Class Championship. (This made an earlier penalty especially sad. Tommy had a widely-reported contretemps with an official, but his actual penalty was 10 points for a landing infraction: in a low-energy finish he touched down on a taxiway and crossed the rollout area of the active runway. Without that penalty he would have been World Champion—by a single point!)

* * *

The Standard Class victor for the last day was Belgium's Henry Stouffs. An airline captain who is also a two-time world champion and nine-time national champion, Stouffs described his 119-kph win, which moved him to 6th place for the meet, with prosaic matter-of-factness:

"When you have a good flight, it's an uneventful flight. There was no problem at all; uncomplicated, really. There was a quartering tailwind that helped along the first and second legs. I left Hobbs at 1800 meters a bit later than most and caught up by the first turnpoint. We moved very fast to Hereford along the long 213-km second leg. It was blue thermals after that, but we climbed them to the same height every time—2100 meters. I left the last thermal on my final glide earlier than the others. *Voila!* That's what it takes: Start a little later, fly with the gaggles, leave the last thermal a littler earlier than the rest."

Despite the veteran's urbane affability, a feeling of malaise was clear. It turned out to be similar to that expressed by a number of other pilots.

"I feel there is something gone," Stouffs says. "An individual pilot doesn't move quickly anymore; a gaggle moves quick. It's racing by committee. That means that if you can follow and keep with a gaggle every day, you're a sure winner—just leave five minutes later and leave the last thermal quicker than anybody else. Nobody is making any decisions. It's a group act, not individual competition. It's certainly not satisfying to me. I'm not proud of this last task."

Stouffs felt a new type of task that permits the pilot to select his own course might be an answer. "It will be difficult to organize," he observed. "People might not be satisfied."

* * *

A little portable shade helps cool the tension which prevails near the front of the line.

Gary Edwards

Bruno Gantenbrink complained that he started 15 minutes after his class because he could not reach the clouds and that the first 50 km of the Open Class course suffered from weak thermals. By the first turn, 85 miles east to Tahoka, he felt better:

"I saw Alvaro de Orleans in the AS-W 22, and a little later George Moffat. I knew George had started 20 minutes ahead. I couldn't believe I was so fast."

The 146-mile second leg to Vega was very fast. "We had a tailwind and cloudstreets to within 40 km of Vega, so it was necessary to thermal only three times during the first 170 km."

Gantenbrink won with an average speed of 139.4 kph around the 656.8-km course—the Championships', longest.

* * *

At the closing ceremonies, the intransigent wind again harassed the proceedings as it had at the opening. But the upbeat feeling of the crowd wouldn't be downed. How could anyone be irritated by a weather whose largesse had made possible the best World Championships ever? The top competition pilots had come to Hobbs from the far corners of the soaring world to establish their champions. Now, there they stood: High on the central podium, Ingo Renner, 1983 World Open Class Champion, Australia; to his right, Stig Oye, 1983 World Standard Class Champion, Denmark; to Renner's left, Kees Musters, 1983 World 15-Meter Class Champion, The Netherlands.

SSA fans were proud to see Karl Striedieck and Tom Beltz on the second step of the 15-Meter and Standard podiums, as were West Germans with Bruno Gantenbrink's similar placing in Open Class.

Standing on the 3rd-place steps were Francois-Louis Henry, Open Class, France; Laurens Goudriaan, 15-Meter Class, South Africa; and John Buchanan, Standard Class, Australia.

Besides the bestowal of awards, the ceremony was a leave-taking. The friendships and camaraderie that arise at a WSC can be long-lasting. Thus, there was a faint sadness with the symbolic lowering of the FAI flag and the entrusting of it to the care of the Italians, hosts of the 1985 WSC. Latin ebullience turned the moment around when two members of their team paraded an impromptu sign painted with an arrow labeled "8500 miles" pointing toward "Rieti," site-to-be of the next Championships.

Arrivederci, Hobbs!
Addio, Rieti!

Thank you to all who gave your time and energy to make the 18th World Soaring Championships the success that it was. Your support is appreciated!

A A Oilfield Services
A B C Rental
Albuquerque Soaring Club
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American Food Management
American Red Cross
Marcia Anderson
George Applebay
Red Austin
Sharon Austin
Dave Beltz
Jean Beltz
Rusty Beltz
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Craig Bliss
Boy Scout Troop 45
Bea Brandt
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Bill Braun
Cindy Brickner
John Brittingham
Walter Brock
Joe Brown
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Bill Dunn
Dick Edge
Dirk Elber
Frauke Elber
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Jim Elliott
Bill Emmons
Curtis Erwin
Caroline Eschenberg
Tony Estrin
Cliff Everhart
FAA Lubbock GADO
Max Faber
Ione Fails
Norma Faulkner
B. Fay
First Interstate Bank
First National Bank
Gavin Fischer
Tammy Flemming
Forrest Tire
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Shirley Gimmey
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Gary Glover
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Michael Gomez
Dani Good
Kent Hardin
Cyndy Harris
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Harry McAdams Park Rangers
John Havink
Mary Henson
Fred Herr
Brian Hill
Carole Hinds
Lex Hinds
Vince Hinds
City of Hobbs
Hobbs Chamber of Commerce
Hobbs Fire Department
Hobbs Flare
Hobbs Lions Club
Hobbs Municipal Schools
Hobbs Police Department
Hobbs Rotary Club
Hobbs Soaring Society
Joy Hoeler
Bill Hollins
Eddie Horn
Rosemary Houston
Eduardo Iglesias
James Jacques
Jaycees
Jim's Ignition
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John West Engineering
Jan Kemp
Dick Kemper
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Knox Services
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KYKK
Ladshaw Explosives Inc
Doug Lamont
Lianna Lamont
Hal Lattimore
Mary Lattimore
Mike Lattimore
Lea County Airport
Lea County Aviation
Lea County Commissioners
Lea County Road Department
Lea Regional Hospital
Liberty National Bank
John Lincoln
Judy Lincoln
Connie Linke
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Tom Lund
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Steve Maier
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Ken Martin
Dudley Mattson
Von Allen McCallum
Bill McDaniels
Glenn McKay
Allan MacNicol
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Charles Scholl
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Gary Schubert
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Jan Scott
Wally Scott
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Bill Seed
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Tom Stoops
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Larry White
Jim Whyte
Julie Whyte
Anja Wilckens
Oliver Wildman
Mary Williams
Ray Williams
Tug Willson
Ellen Wilson
John Wilson
Bill Wimbely
Hana Winslow
Tracy Winslow
Velma Wiseman
Steve Wort
Red Wright
Xerox
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