

A weekend in San Diego. A compelling version of motorsports—airborne—which we had attended last year (see *Arizona Driver*, July/August 2008).

Our hosts: Red Bull, a company that not only produces magical fluids to light a fire under people like us on busy production schedules, but also has developed a truly astounding stable of events worldwide. Add our own Arizona star pilot, Kirby Chambliss, in a comeback attempt after not repeating his prior World Championship in 2008, and you have a solid formula for excitement: stage 2 of the Red Bull Air Race World Championship.

Despite all the makings of a perfect race weekend in San Diego, the weather almost precluded the whole thing. We arrived on Thursday afternoon, just after training runs 1 and 2, and checked in at the waterfront Marriott Hotel & Marina in time for a cold, grey Friday on which training runs 3 and 4 were ultimately scrubbed. A minimal cloud ceiling is needed for the races, which occupy air space tight-up against both San Diego International Airport and Coronado Naval Air Station, North Island.

Saturday started out no better, and Qualifying rounds were at risk most of the day, but by afternoon the ceiling started to lift. That didn't last long, but fortunately, the weather held long enough for the Sunday race lineup to be determined.

Arizonan Kirby Chambliss was the World Champion in 2004 and 2006, but finished third in 2008 and has been determined to chase the number one spot on the podium this year. The competition was going to be stiff.

**Technical advances**

Pilots had spent the off-season advancing every detail of their planes' performance, eking out precious tenths however they could. "I am impressed with what they're coming up with," says Adrian Judd, Technical Director of the Red Bull Air Race World Championship. "Some have gone for better aerodynamics and some for cutting down on weight. They've been spending a lot of time and money in the off-season to make their planes faster. But it's obviously not anything I could talk about. All I can say is that most of it is on the insides of the planes, not the outsides."

Zivko Aeronautics Inc. makes the Edge 540, which ten of the 15 pilots use, including Chambliss. The other five fly the MXS-R from MX Aircraft. Lycoming LyCon and Barrett Precision Engines are the two approved powerplants. Per Red Bull Air Race rules, minimum aircraft weight is 1,190 lbs (540 kg). A typical factory Edge 540 is around 1,240 lbs.

Countering their weight-shaving efforts,

the pilots were adding a new high-tech G-Race Suit to help with the high G-forces they are subjected to when racing. The suits contain liquid-filled tubes which change shape under G-forces, contracting special non-stretch fabric and putting pressure on the lower extremities, to keep oxygen-rich blood in the head. Along with interactive muscle straining and breathing techniques, the suits are intended to provide the pilots with maximum G-protection. This was a major adjustment for the seasoned pilots to make, and the fact it added more weight to their weight-limited aircraft was not uniformly welcomed.

**Prep and season opener**

Hannes Arch of Austria had come from behind to win the first race of the year in Abu Dhabi, beating Paul Bonhomme of Britain, the same one-two who had won and placed in the 2008 series. Arche came to the second race, in San Diego, with a three-point lead.

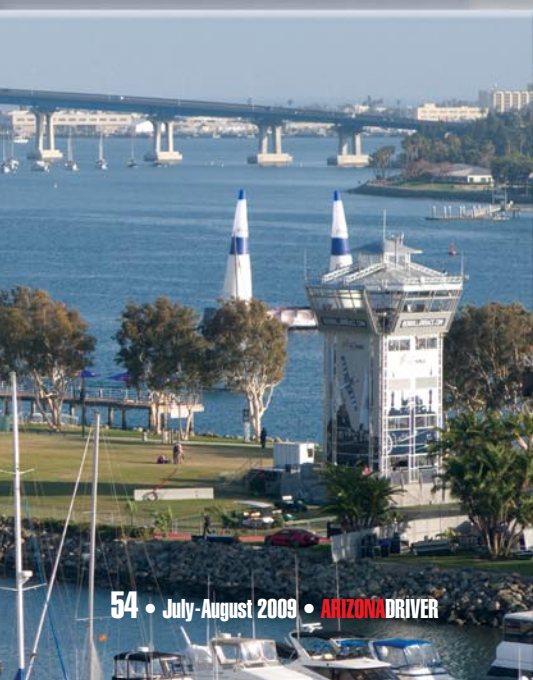
Kirby Chambliss has been training hard



# Red Bull Air Race World Championship San Diego

Arizona's ace Red Bull Air Race pilot Kirby Chambliss: ready for takeoff; conferring with his ground crew and Adrian Judd, RBAR World Championship Technical Director; showing his daughter the ropes; shown in his new G-Suit; throwing out the first pitch at a Padres-Rockies game; and rolling his craft to the hangar.





Friday's weather was nasty, forcing the early cancellation of two training runs. Saturday's started out no better, but lifted in time for an exuberant start to the Qualifying rounds, though conditions socked back in pretty quickly—but not enough to preclude completing the rounds. On Sunday, the weather finally broke, for a postcard-perfect Race Day.

and modifying his plane all winter. The Red Bull Air Race combines extreme degrees of both aerobatics and racing, though Chambliss puts the emphasis on racing. "It's not really a straight choice because they're totally different," he told RBAR interviewer Matt Youson. "You want to win, whatever the competition, but the strategies involved in aerobatics and racing are miles apart. In competition aerobatics, you are looking for very, very precise figures. Here it's about the clock: You're flying really close to the water, trying to shave fractions of seconds. It's not the same thing at all."

Chambliss will be watching the performance of the MXS-R this season. He was one of the original testers for the Edge 540 and has a close bond with the plane. But he plays to win, so he's willing to consider the change. Americans Mike Mangold and Chambliss, who have won three of the last four World Championships between them, had a tough start this season. Both were flying without the horsepower they are accustomed to, after working hard to trim weight and to handle tight regulations on starting speed and G-force this year. Mangold finished seventh in Abu Dhabi, Chambliss ninth. Both were seeking a change of fortune in front of their own fans.

### Saturday: Qualifying

Chambliss probably did not mind that Friday's training sessions were cancelled, as he knows the San Diego track well. Nonetheless, Arch rallied from behind to post the fastest Qualifying time on Saturday and collected one point to widen his lead over Bonhomme. The British ace had been fastest

in the first Qualifying session, but Arch—only in fourth after Q1—opened the throttle in Q2 to best Bonhomme with a time of 1:18.42.

The technical edge to the series has become a big factor, and personal frictions have grown. Several technicians thought it was "odd" that Arch had not only closed off access with a rope in front of his hangar but had also assembled the plane at clandestine locations. Arch enjoys putting psychological pressure on rivals and having them unsettled by his secrecy fits his strategy. "I'm glad if the others get stressed about it," Arch said.

Chambliss, the 2006 World Champion who took third place in San Diego a year ago, gave the home crowd something to hang their hopes on by taking sixth in Qualifying. "It was expected that until we get our technical thing worked out we're just kind of sitting there," noted Chambliss, who is not one for excuses. "But who knows—anything can happen."

### Sunday: Races

Sunday's races include Top 12, Super 8 and Final 4 runs, as well as three Wild Card slots, due to the expanded roster this year.

**Excessive Gs:** For the Arizona fan base, the most noteworthy moment came during the Top 12, when Kirby Chambliss saw his chances evaporate as he was disqualified for exceeding the G limit—a risk of hammering into the course at max speed. For Chambliss in San Diego this year, it was all over.

**Bird strike:** Another of the race's major incidents happened directly in front of the media dock in the Final 4, when Hannes Arch suffered a birdstrike halfway through the course. The defending World Champion carried on through the course, unaware that a hole had been ripped in one of the rear surfaces. Arch, who managed to fly his damaged plane without problem and salvaged third place, later said he would have pulled out if he had known the extent of the damage. He

was in the lead before the bird strike and said bad luck cost him the victory (he finished third). He realizes the bird strike could have been much more serious. "It's like you crash your car into a wall. It's really loud. Immediately you know something is going on. You think about the engine, but the engine is still running fine and the next pylon shows up. The plane is flying, so you just continue. It's hard to finish the race with all those questions in your mind. The one side says 'Stop, because there's something serious going on,' but the other side says, 'Well, the plane is still flying, so why shouldn't I continue to fly?'"

Frenchman Nicolas Ivanoff had a penalty-free run in the Final 4 and two record-shattering times close to the 1:17 mark, putting him in the first place spot on the podium.

Paul Bonhomme was second, despite suffering a back injury in Saturday's Qualifying, with a personal best of 1:18:32 in the Final 4 and 10 points. Bonhomme, who suffered a bird strike in training in London last year and aborted his run, said he thought Arch should have stopped after the bird strike but said, "I must admit he did well considering he had just collected a pelican weighing 5 kg."

### Followup: Windsor, Ontario

The next leg of the Red Bull Air Race World Championship was just being run as we went to press. Formerly held in Detroit, this year it was officially held in Windsor, Ontario—same diff, a Detroit River course straddling the US-Canada border—adding to the international flavor of the season overall. Kirby Chambliss squeezed every bit of horsepower out of a hot new engine during training runs here, topping the time sheets in both morning and afternoon sessions. Chambliss, who won last year on this course, was a full 1.44 seconds ahead of Bonhomme in the fourth and final session. France's Ivanoff was third in the final training, 2.30 seconds behind Chambliss's

Austria's Hannes Arch lost his lead but saved his hide when he unexpectedly collided with a 12-pound pelican during an already-challenging maneuver.

Kirby Chambliss on the podium at Windsor, Ontario.

pace-setting time of 1:09.91, while Austria's Arch was fourth, 3.02 seconds behind.

"I'm not flying any differently than in Abu Dhabi or San Diego," said Chambliss. "The engine makes all the difference. It'd be great to make the podium here, but I'd really love to have the number one spot again."

Chambliss won one World Championship point by placing first during Qualifying on Saturday. Bonhomme took second and Ivanoff was third. Defending champion Arch shrugged off a disappointing fifth in Qualifying—his worst result of the season—after getting hit with a 2-second penalty.

Chambliss now had four Championship points and could add 12 more with a victory on Sunday. "I cut every corner I could. I was right there on the edge. I think I went about as fast as I could go. We're looking good. I'm excited about the engine. We've got an extra 40 to 50 horsepower now. We've been definitely lacking in the engine department."

On race day in Windsor, however, Britain's Bonhomme was the only pilot to avoid any penalties throughout the day despite unpredictable winds on the course that caused considerable trouble for several of the pilots.

Arch (who placed 2nd) was not at all pleased with the stewards' decision to impose a penalty for flying too high through the course in the Final 4, leaving him with a 1:09:31 time. "I don't know where I got the penalty but I'm not very happy," said the Austrian. He would have posted the fastest time in the track if he'd managed a clean run.

Kirby Chambliss didn't win, but with a third place finish added nine points to the extra one gained in Qualifying on Saturday. Even with complications from his long-awaited new engine earlier in the week (his technician had to overhaul the cylinders overnight), Chambliss appeared to be on fine form at every stage of the game. "It's a good sign, and we're moving in the right direction," said the Arizonan, who was pleased to be in play ahead of the European leg of the series.

### The rest of the season

Remaining races are in Budapest (Aug 19-20), Porto, Portugal (Sept 12-13) and Barcelona (Oct 3-4). To follow the action and results, visit [www.redbullairrace.com](http://www.redbullairrace.com).

Fans of the Red Bull Air Race can enjoy the thrills on iPhone and iPod touch. For a virtual seat in the cockpit of one of the 15 high-speed airplanes entered this season, the interactive flying race game by Artificial Life, Inc. is \$4.99 from the Apple App Store. ■

