



GAS DIVISION NEWSLETTER

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44th COUPE GORDON-BENNETT by Richard Abruzzo

The 44th edition of the oldest aviation contest in the world was held at St. Hubert in the beautiful and historic Ardennes region of Belgium. The least populated region of Belgium, the Ardennes' heavily forested hills and ridges are very popular with hikers, hunters, and other outdoor enthusiasts. The Battle of the Bulge was fought in the area and the nearby town of Bastogne was the epicenter of this tremendous World War II battle.

Launch weather was absolutely perfect with a large high-pressure system centered over the region. The first balloons in the launch order departed just after sunrise in calm and clear conditions. Carol Rymer Davis and I were scheduled to launch in the eighth position and took advantage of the additional time to watch the slow and graceful departure of the first several balloons. Our good friend Bruce Hale had generously allowed us to use his new Worner hydrogen balloon, and he and his family and friends even prepared and inflated it for us. This support allowed Carol and I to concentrate on our flight preparation and race strategy.

It was slow going initially as we drifted southeast across Luxembourg, Germany, and into France. The entire pack of seventeen balloons was generally curving back to the west driven by the clockwise rotation of the high-pressure overhead. The next day we came to a complete stop north of Strasbourg, the GPS indicating 0.0 knots. We ascended a couple thousand feet and began moving again but very slowly and to the south. We crossed the Rhine back into Germany, thankful that we were putting miles between St. Hubert and us.

(photos by Richard Abruzzo)



Richard Abruzzo & Carol Rymer Davis, photo from the recent America's Challenge Race

It took most of the second night to cross southern Germany and we entered Switzerland prior to dawn. At sunrise we found ourselves skirting just east of Zurich's airspace. We had maintained nearly 12,000 feet through the night in order to keep the balloon moving at all. The controller in Zurich requested we descend to flight level 90 or roughly 9,000 feet which was distressing because we knew there was no wind at that level. I explained to him that we could honor his request but that if we did so he would be stuck with us all day. I further explained that if he let us stay at our current altitude that we could continue south at 10 knots and be clear of his airspace fairly quickly. He responded without delay that we should maintain our current flight level. The next hour was quite exciting as he routed passenger airliners above and below us, close enough that I was concerned the noise from the jet engines would wake Carol.

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EDITORS' COLUMN
By Peter Cuneo & Barbara Fricke

The year 2000 has been an interesting one for gas ballooning in the US. Hydrogen has been reintroduced into US gas ballooning amidst some safety concerns. The National Gas Championship, scheduled for Danville, Illinois in June, did not occur after the organizers looked at questionable weather conditions and chose the conservative course of action by canceling the race. The organizers of the fifth annual America's Challenge Race, scheduled for Albuquerque, New Mexico in October were faced with similar adverse weather. The race was delayed for several days but did occur with a fraction of the registered competitors choosing to fly. Those who did fly were rewarded with some excellent flights.

On the literary front, interesting books were published describing both successful and unsuccessful round-the-world attempts. Your editors have made a determined effort to produce a Gas Division Newsletter that is both interesting and informative. We especially appreciate the fine efforts by Richard Abruzzo and David Levin in this, our third issue. These members as well as others, have answered our call for contributions. They have all helped this newsletter fulfill its stated purpose of being an effective tool for communication among gas balloonists. We are sure that, with only moderate harassment by the editors, more members will step forward and contribute in 2001.

This issue is also the first to be E-mailed in Adobe (.pdf) format to those subscribers who have requested this service. Let us know if you would like to try the electronic version!

Gordon-Bennett

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As the morning sun climbed into the sky we approached the Alps slowly. When they first appeared on the southern horizon they did not look like much but as we got closer their magnificent peaks came into focus. We requested and received permission from Zurich to climb to flight level 140 in order to clear the mountains ahead. Several of the peaks ahead topped out over 14,000 feet. At the moment there was not a cloud in the sky but the forecast was for isolated rain showers over the Alps. Fortunately we would be crossing the mountains during the first half of the day and would most likely be clear of them prior to any afternoon thundershower activity. Incredibly we lined up on the Splügen pass which crosses over to Lake Como in Italy. We did not have to ballast at all and squeezed right through the gap with the highest peaks to either side of us. This conserved ballast and more importantly we avoided the cumulus clouds already building on the high peaks. We crossed directly over Bellagio where Lake Como splits into its two lower arms and continued on towards Milan.

With Milan behind us it was decision time. Our current track seemed to allow the possibility of flying down the "boot" of Italy. We had sufficient ballast to make it through the night but not much more. In the late afternoon we decided to press on.

Very quickly the conditions that we based our decision on began to change. Our track began to turn to the right. We felt that there was a wind to the left above so we began to climb. We climbed all the way up to nearly 18,000 feet and found winds that would allow us to continue down the "boot." The sun was setting, and the balloon began to cool quickly. Any extra "comfort" ballast we had was now gone, consumed by the climb and the considerable cooling we were now experiencing. Worse yet, our course began to turn to the right again. We watched the GPS dejectedly as we turned toward the right degree by degree. With our marginal ballast situation and

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our track eroding to the right towards the Mediterranean we reluctantly decided that we would have to attempt a night landing before we got too close to the coast.

We had high definition maps of most of Europe but for the southern portion of Italy we had a small-scale chart that made it difficult to get a good idea of the topography of our intended landing area. It turned out to be much more rugged than we thought it would be. We descended towards an area that appeared somewhat level and containing what appeared to be a few small villages. Unfortunately we just missed the valley and ended up on the side of a mountain equal in height and ruggedness to the Sandia Mountains back home in Albuquerque. This forced us to ballast up and over the mountain and try for a landing on the other side. Our ballast situation at this point was tenuous at best. We did not have enough ballast for another go around.

Determined to get back on the ground we began another descent towards the slightly lower terrain on the other side of the mountain. As we approached the surface we could see by the light of the moon that the terrain was difficult and mostly forested. It was now or never. Another

“Sandia” like mountain was coming up and best we could tell from the map the sea was just on the other side. We spotted an open field and made a steep approach. Our depth perception was impaired in the dim moonlight and we completely misjudged our height above the ground and arrived at the surface descending too rapidly. I yelled to Carol to release the trail rope but the quick release shackle was rigged upside down and would not release properly. We impacted the trees just beside the field we had been shooting for and held on as the gondola crashed down to the forest floor. I was dismayed that we had probably damaged Bruce’s balloon but happy that we had landed safely. We decided to leave what little gas was left in the balloon and wait for daylight to extract the balloon from the treetops. As Carol secured our equipment I walked to the nearby road and flagged down one of only two cars to pass by during the night. Despite my inability to speak Italian I was able to borrow their mobile phone and let the chase know roughly where we were.

The chase was able to find us amazingly quickly considering the remote nature of our landing site. We spent the night on the side of the road and at dawn began the process of extracting the

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Launch of 44th Gordon-Bennett from St. Hubert, Belgium, September 9, 2000



Richard Abruzzo & Carol Rymer Davis, somewhere over the Alps on the way to a landing in Italy

Gordon-Bennett

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balloon from the trees. We identified a half dozen trees that we thought would have to be removed to free the balloon and pointed them out to the landowner. He became very excited and spent the next 15 minutes explaining in Italian that removing the trees would involve much paperwork and the involvement of the Italian forest service. As we began to think there was some serious red tape to be cut through he grabbed his chainsaw and started cutting down the trees. In the back of my mind I was formulating the call I was going to have to make to Bruce to inform him that we had damaged his balloon and that he could use my helium balloon back home for the upcoming America's Challenge in Albuquerque. After only two trees were felled and a small branch cut free; the balloon fell in a pile on the forest floor completely undamaged. We were astonished at our good fortune and happy that our call to Bruce would involve much better news.

Our flight was nothing short of spectacular so when we learned that we had come up just short of winning the race we were not very disappointed. Our crossing of the Alps had been breathtaking, and we were quite fortunate to have accomplished a night landing in difficult terrain without incident. It turned out to be a fascinating race with teams choosing many strategies resulting in flight paths in every possible direction from St. Hubert. At one point it was thought that the American team of John Kugler and Red Sheese had chosen the winning strategy and would be able to ride a localized phenomenon in France called the "Mistral" wind to victory. It was then thought that we had sewed up the victory with our landing in Capoli, Italy. Ultimately the Germans surpassed our distance by a mere 30 miles with a flight in the exact opposite direction to the tip of Sweden. All in all it was an incredible race and I am sure that all who participated would agree. □

2000 AMERICA'S CHALLENGE
Hellish start to heavenly finish
by David Levin

This year's Albuquerque Balloon Fiesta started off badly. The weather looked bad for both hot air and gas ballooning and my supply of Lomotil (an antidiarrheal) was dwindling. Gas balloon competition makes me nervous enough when the weather is good. Bad forecasts put me in a sorry state where pharmaceutical relief is required. We managed a pleasant hot air flight on Saturday morning but the weather forecast for the next few days looked dismal. A huge high-pressure system in the central Midwest was bringing moisture up from the Gulf of Mexico where storms were brewing. The weather east of the mountains was looking good for a flight across the country but getting off the ground was a problem. Finally, a low-pressure system was coming from the northwest, threatening the latter part of the week.

My co-pilot for this flight was my brother Alan. He is a fixed wing pilot with over thirty years of flying experience and has made many long distance gas flights with me including last year's epic flight from Denver to Quebec. Fifteen hundred miles in sixty-two hours and my longest flight by far. We had so much fun on that flight that we really didn't mind coming in eighth. Now we were ready for another long one but this time we were determined to finish in the top three to qualify for the Gordon Bennett.

Our meteorologist for the flight was Lou Billones. I have used his services for many years, and I think he is one of the best. His reports were basically the same as those coming from the event staff except that he was much clearer about the low probability of a flight for a few days. He was right of course and we had to wait through three days of lousy weather and false alarms until Tuesday when there was a slight chance of getting off the ground. Lou's forecast only made my stomach problems worse when he predicted high winds for inflation and launch (like in Denver last year for the REMAX flight) and moisture in the area until we got east of the mountains. Fortunately the winds were not as forecast. After the rain finally quit, we had an easy inflation in calm winds.

We finally launched around 10:30 Tuesday night with thirty-four bags of ballast and flew low for about two and half hours, heading straight south. Lou had told us to climb to at least 12,000 feet to get a heading of 040 but this would have taken us over the highest mountains northeast of Santa Fe, over 13,000 feet, and we wanted to stay as low as possible over the mountains to conserve ballast. By flying south of Albuquerque before climbing, we managed to stay south of the taller peaks and didn't have to climb above 12,000 feet the first night. It also gave us an excuse to stay low over Albuquerque for a while which was lots of fun. Crossing the Sandia Crest was a visual treat as we rode the wave in and out of the moonlit clouds.

Lou's team had instructed us to stay at about 12,000 feet for the next twenty-four hours to take us to Omaha and then to Wisconsin where he thought we could catch a right turn to take us across the Great Lakes heading east. In fact, he told us that if we could make northeastern New Mexico by sunrise, he thought we could eventually make it to New England. We followed his instructions and found ourselves over Omaha by 9:00 p.m. Wednesday and crossed into Wisconsin just after sunrise on Thursday. Fortunately, we could let the balloon settle to 6,500 feet during the night and maintain the same direction of 045, and we maintained that altitude and direction until sunrise. As the sun warmed us on a beautiful clear fall day, we slowly climbed to 11,000 feet and did in fact turn right, heading east. This really got us excited as we had been planning for a Thursday afternoon landing in the Upper Peninsula of Michigan. By now we knew we could go for another night and thirty more hours of heading east. Around noon we headed across Green Bay which looks like a great lake, and then we flew over Lake Michigan, my first flight over water. Lots of water. Even though the balloon had been flying well with no problems for forty hours, facing an expanse of water with no land in sight was a little unnerving. Fortunately I had just purchased an emergency life raft and its presence in the basket was comforting.

At sunset on Thursday we still had plenty of ballast, 12 bags, and the weather was perfect. We were starting to track a little south of due east so we let the balloon descend to see whether we could

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improve our speed and direction. The speed stayed the same, about 35 kts, but we did manage to turn to the northeast a little. This was really great because the more north we went the further east we would be able to go. We also wanted to avoid the Toronto airport area. We flew low over Lake Huron and Georgian Bay during the night heading ENE. When we reached land in Ontario, we turned east again and kept that heading through sunrise. I was asleep at this time and woke up about an hour after sunrise over upstate New York. WOW!! This was really getting interesting. We were over the Adirondack Mountains in broken clouds, heading for Burlington, Vermont. New England in the fall. Peak color below us and the beautiful mountains of Vermont and New Hampshire in front of us. The clouds dissipated and we soared to 10,000 feet. Another beautiful fall day with perfect flying conditions. We headed ESE at about 35 kts and enjoyed the view as we flew over Lake Champlain, Burlington, the mountains of New England and finally the southern end of Maine and the Atlantic coast.

My brother and I grew up in New Jersey. We learned to ski in Vermont and went to summer camp in New Hampshire. During my college years in Boston I traveled to New Hampshire often. Now we were flying over the same beautiful landscape in a gas balloon on a perfect fall day AND we were winning the America's Challenge by travelling nearly two thousand miles. We even flew right over our old camp. What more could we ask for? How about a stand up landing with local balloonists, local press, a friendly landowner and a police officer to verify our landing? Oh yes, the crew was there too. We came down from altitude over Sebago Lake around 2:00pm local time and roamed around in light thermals for a few hours until the crew had us in sight and we stirred up some local balloonists. There was even a plane carrying a photographer from the Portland Press Herald circling us for an hour before we landed. The coast was in sight, and we were about ten miles northwest of Portland. We finally floated over an open pasture (there weren't many) and dropped in for a perfect landing. The first to arrive was the wife and son of a local balloonist who was in Albuquerque. Next was a reporter from the

Portland paper and finally a friendly police officer who had been alerted to our arrival.



(photo: Bill Parks)

David & Alan Levin at their winning landing site in Maine

We packed up in no time, got our documents witnessed and headed for home. Only 2,500 miles to go. Our spirits were high, though we were all exhausted. We had made the flight of a lifetime and won the race. Long showers at the nearest motel and a seafood dinner in Portsmouth, New Hampshire finished off the day. Normally we would have settled in for a good nights sleep but it was Friday night and the Awards Banquet was only twenty-four hours away. We wanted to show up to take our bows so we drove all night and half of the next day to get to Chicago in time to catch a flight to Albuquerque. We arrived just in time to jump into our tuxedos and make a grand entry at the Awards Banquet.

The crew finally got to sleep in a bed after they dropped us off in Chicago Saturday afternoon, and we all met back in Boulder for dinner at my house Sunday night. I want to give special thanks to Bill Parks and Paul Lehman, the chase crew, for a job well done. They drove a lot further than we flew and did it all with big smiles. They said they'd be back next year, and I sure hope so. □

Editors' Note: The 2000 America's Challenge was won by David and Alan Levin. Richard Abruzzo and Carol Rymer Davis took second. Troy Bradley and Earl Miller were third.

UPCOMING GAS EVENTS

The **2001 World Air Games** Gas Balloon Championship will be held in Seville, Spain from June 22-30, 2001. Entry fee will be 2085 Euros per team for nine nights accommodations, breakfast and dinner, ceremonies and social events, and maps. The fee for hydrogen will be not more than 1100 Euros and may be reduced pending sponsorship. Additional crew members will receive the same benefits for an additional 600 Euros. Contact Mark Sullivan for more info (address below). Deadline for entries and payment of fees is March 31, 2001. □

The **2001 Gordon-Bennett Cup** launch window opens September 1st in Warstein, Germany. The US entries are David Levin and Mark Sullivan, Richard Abruzzo and Carol Rymer Davis, and Troy Bradley. A limited number of fiesta gas balloons are being allowed to fly. Jim Hershend and Bruce Hale are planning to participate. Entry fee is 511 Euros. □

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BFA BOARD LIAISON

Robert Willbanks

CHAIRMAN'S COLUMN

By Richard Abruzzo

Gas Ballooning is Alive and Well in the United States

As I write this column a dozen or so gas balloons are being prepared for what I believe is the first ever Gas Balloon Rally held in the United States. It is exciting that this event, to be held December 15 – 17th by the Albuquerque International Balloon Fiesta, is not a competitive event but simply a gathering in which gas enthusiasts can do whatever they please. Many gas pilots will be providing training to hot air balloonists that want to experience the wonders of silent flight and others may just float around with no particular purpose or goal in mind.

What is important is that more and more gas ballooning is occurring outside the couple of competitive events that are held each year. This means more opportunity for new people to become involved in our wonderful sport. As more hot-air pilots are given the opportunity to remove the airborne heater restriction from their licenses they in turn will be able to provide the same opportunity to others. This is exciting. Not too long ago we had competitive events where only a few balloons showed up. Now twenty or more entrants are commonplace.

Gas ballooning in the United States is experiencing a growth spurt. Let's nurture that growth so that more pilots can experience the wonders of gas flight. Floating over the landscape in absolute silence, or gazing upward at the stars surrounding the surreal globe of gas that supports you, are moments that are impossible to convey and are best experienced first hand. □

UPDATE on December Gas Balloon Rally

Six gas balloons (3 hydrogen & 3 helium) did launch from AIBF field on Saturday evening, Dec 16 for a friendly flight and training exercise. All landed safely by Monday morning. Pilots were: Richard Abruzzo, Barbara Fricke, Mark Sullivan, Bruce Hale, David Levin and Tom Donnelly. We hope to have more info in a future issue. □

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PLEASE SUBMIT ARTICLES, COMMENTS,
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ADDRESS CORRECTION REQUESTED

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SOLICITATION FOR 2001 GORDON-BENNETT QUALIFIER BIDS

Balloon Federation of America Gas Division is accepting proposals for the right to host the 2001 Gordon Bennett Gas Balloon Qualifier. Proposal criteria are available from the Gas Division Chairman, Richard Abruzzo (groms@compuserve.com or 6620 Paddington NE, Albuquerque, NM 87111). The deadline for proposals will be March 1, 2001.

GAS ON THE WEB

<http://www.nasm.edu/nasm/arch/steiner.html>
1st photograph of an American aircraft 6/18/1857
<http://freepages.hobbies.rootsweb.com/~tlosborne/Articles/>
Article on Brielmann & Sturzlinger's America's Challenge 2000 flight to Minnesota
<http://www.howstuffworks.com/helium1.htm>
Popular explanation of the physics of helium balloons, airships and related concepts.

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