

DirtBoating

MAGAZINE

The Fastest X 2 | The Weather | The Trivia | The Book | The Gale



dirtboating.com

November 2013

From the Editors



We thought the second issue of Dirtboating magazine might not actually happen, despite Duncan's unbridled enthusiasm. It was supposed to be the "September Issue," but barely made it for November and the advertisers were screaming for their money back (that is the first outright lie in this issue*).



First, it seemed like no one was going to write an article, which is pretty much the death knell for any magazine, whether print or pixel. Just when things looked darkest, Bob Dill stepped up with his article on the fastest sailors on the planet coming to Ivanpah and the beginnings of a "Playaology Redux" article, which will probably appear in a future issue. Then Duncan and Bob somehow found "The Weather Guy," Bill Clune, and Duncan's weather at Smith Creek article got more than just the requested technical support. Every time I opened my email Duncan had written a couple more things. Don Rypinski offered to let us publish the first chapters of his book *A Personal History of Landsailing in America* (and ultimately maybe the whole book) and we had our lead article and were off and running...

...At least until our layout and typesetting guy (me) had several portions of his life go south simultaneously and was suddenly and uncharacteristically surrounded by the sound of balls dropping. Various unfinished and a couple of unstarted projects, totally stalled, left this editor really envious of his retired or semi-retired, non-school-teaching friends.

So, the disasters are passed or dealt with and one-by-one the balls are going back in the air, helped considerably by pre-Thanksgiving rain at Ivanpah. I don't even want to hear that it dried out and the wind was great!

Thanks for your patience! I hope you enjoy the almost-December issue of *Dirtboating!*

Duncan Harrison
Blake Learmonth

Nov 30, 2013



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Dirtboating magazine is published online from an undisclosed location or locations in the western United States, probably nowhere near Area 51 and not too close to Roswell
Publishers and editors: Duncan Harrison
Blake Learmonth

Please assume that everything you see is copyrighted by someone.
On the other hand, over the years I have been given literally thousands of landsailing images, almost never with any clear indication as to who the photographers were. If you



Blake; Playas; Photo Jordan Learmonth

see a photo that is wrongly credited or not credited and you know who the photographer or featured landsailor is, please let us know. editor@dirboating.com

One of the fortunate aspects of digital publishing is that we can make corrections relatively easily when compared to an on-paper magazine. So if you see something that is amiss we would like to hear about it.

At this point this is not a money-making business; we will depend on volunteer writers and photographers. If you are interested in writing an article or having your action photos published, send them our way. Although this is primarily a web magazine, we would like to have images that **could** be printed.
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A Personal History of Landsailing in America

Dirtboating Magazine is happy to present a sneak preview of Don Rypinski's book, which goes well beyond just *Landsailing in America*, including racing in Europe and the exploits of landsailors crossing the Sahara Desert.

In the late 1950's, I was attending Orange Coast College and hanging around with a number of boat builders who frequently attended Blackie's Bar on the Newport Peninsula to exchange stories and lies while drinking beer. One evening Jack Reynolds, a local motorcycle mechanic and racer, was animatedly telling about his experiences in the Mojave Desert earlier that day. He had attached himself to a parachute that contained a helium filled weather balloon. He filled the balloon enough to make himself weigh only 5 pounds and found he could jump 50 feet in the air. In the afternoon breeze he could travel quite a distance before touching the ground again. He carried a grappling hook on a long line in case he was heading for anything dangerous like a power line.

I was so taken with his story and creativity I became infatuated with the idea of one upping Jack's high flying experience. But what would outdo him? After a lot of thought, I decided to build a landsailing vehicle, which might not top Jack's feat, but was the best I could think of at the time. I borrowed a Lido 14 boat sail and rig from a girlfriend and built a three-wheeled vehicle from some trailer parts and a wagon and seriously thought I might be inventing a new sport.

Don Rypinski
US 1

As luck would have it, the day I finished my landsailer, a Santa Ana Wind came up so I took it to the State Park between Huntington and Newport Beach for a trial run. As I was sailing down the beach amazed at how fast it would go, a siren and red flashing lights came up behind me. After stopping me, a park ranger got out of his jeep and extended his right hand in a friendly gesture and said "Hello, my name is Crisp, as in bacon and I am an old ice yachter from back East. As long as you make prior arrangements with me you may sail here during my shifts, although it is technically illegal."

During the 1960's my father was stationed in Europe while working as an engineer with the Jet Propulsion Laboratory. He knew about my landyacht project and wrote me there were large numbers of people sailing on beaches in England. I asked him to send me information about who to contact and so began a long distance correspondence with the British Landsailing Club at Lytham, St Annes.

In 1963, I designed a folding landyacht made of water pipe



In case BloKarters think they invented landsailer trailers...

and cables in the form of a triangular tension and compression frame from which a folding canvas cockpit was suspended. I called it a Windbuggy and it is now 45 years old. Just for fun, I sailed it at Ivanpah Dry Lake near Las Vegas during NALSA's annual regatta in 2012. It is no longer competitive but comfortably seats two people and still sails well, especially in light air.

In 1964 I was invited to compete in the 66th International Landyacht Championships in Belgium on the beach at De Panne near the French border. I was in school and did not feel the landyacht I had would be competitive so I passed on that opportunity. However I kept on corresponding with the Europeans and finally in 1967 built a yacht I thought would be competitive. It weighed 130 lbs and had a dragster-like frame made of exhaust tubing with a canvas hammock laced inside. I took it on a plane to Paris and was headed for the Championships in Cherrieux, France on the beach near the famous castle Mount San Michael.

I well remember arriving at Orley Airport and trying to get my landyacht through customs. I lost the whole first day of racing explaining that it was not a

car, not a motorcycle, nor a sailboat, but a landsailer. They asked me the value of my "Char-a-Voile" (sail-car) which I told them was \$1,000. French Customs then required that I give them \$1,000 in order to bring it into the country. I asked why and they said they did not want me to sell it in France and they would give me back my money when I returned to the USA along with my yacht. I did not have \$1,000 to spare so I gave them a bad check and talked my way out of the airport.

Finally, I arrived at 11:00 PM by Taxi at the waterfront resort town of Cherrieux which was closed up completely except for one bar that was just letting out. A few of the patrons were German landyachters and when they saw my yacht strapped to the taxi, they said "you must be the American. Come with us". They put my yacht on one of their vehicles and took me to spend the night at their hotel with them. The next day it rained and I thought the race would be cancelled. I found out the Europeans never cancelled Championship racing in bad weather if the wind was blowing.

After buying some foul weather gear I was ready for the second day of racing in the rain even though



Windbuggy landsailer at El Mirage in the 1960s*

my yacht and I were drenched. Several German Pilots came by and lifted it by the roll bar with their little fingers and told me “this yacht will never last—it is too light and fragile.” I was quite confident they were wrong since I had tested it with Nord Embroden at El Mirage Dry Lake before leaving home and found it could withstand hard-over spin outs at high speeds with no problem in very high winds. I was able to place 3rd in Class II out of a large field of yachts due to my yacht’s light weight while many of the heavier yachts got bogged down in wet sand. In those days, the Class I yachts weighed up to 1,000 lbs. and the beach felt like a small earthquake every time one sailed by.

What a feeling it was to be around so many people who were even more devoted to the sport of Landsailing than I was. There were about 60 yachts competing from all over Europe including Germany, France, England, Holland, Belgium, Ireland, and Denmark. I discovered that the first international landyacht competition had been held in 1898 between Bleriot, the French Aviator and the Dumond Brothers, who built automobiles in Belgium. I found out the Championships were governed by FISLY (the Federation of International Sand and Landyachts) based in Belgium and that each Annual event rotated from one host country to another. I asked to join FISLY on behalf of America and agreed to introduce their Class Rules for racing to the USA.

I was amazed at how much effort went into the Championships at Cherrieux and how much publicity it got. The town was full of gourmet restaurants, which closed during the races and re-located to the beach in temporary tents. Bleachers were set up on the beach just for the public to view the event. The government commemorated a stamp as a tribute to French Landyachting. Bagpipers provided music during a parade each day. After the Cherrieux event was over, my goal was to come back and race each year in a different country until I had sailed in all of them which I managed to do by 1970. My next goal was to host the first Landyacht Championship in America with NALSA (the North American Landsailing Association), an acronym my father suggested we adopt.

Finally, in 1972, with the help of my wife Beverly and many friends, NALSA was organized and had a good enough relationship with the Bureau of Land Management to make arrangements to hold our first International Championship at Roach Dry Lake in Nevada just off Highway 15 at the California/Nevada border. We got Cutty Sark to help sponsor the event and held a banquet one evening at Caesar’s Palace in Las Vegas. Several Ice Boaters showed up from back east and a French team attended that first event. We borrowed a ship’s canon from a friend to use as a starting gun and set up a Public Address system manned by Tom Beaton, an old extravert friend who loved to announce events.

Our first NALSA regatta had a broad range of landyachts in attendance. Bill Eisenlohr built a nice looking landyacht body from two canoes bonded together with the top one up-side-down. Dan and Bink Palmer made a wooden DN Ice Yacht from plans originally published by the Detroit News Newspaper. A fellow from back east made a very aerodynamic fuselage over which there was an arch shaped wing from axel to axel. Nord Embroden, if memory serves me correctly, was sailing his first Friendship. Grant Follis built a lovely wooden yacht he called The Flying Fiddle. There was a fairly large class of Chubasco Landsailers that were commercially produced. George Olsen, a boat designer/builder from Santa Cruz came with his very cool Terradactyl Yacht. Someone from back east showed up with a Nite Iceyacht and half a dozen sails that stole the show with its performance. We wouldn’t let him leave with it and I like to think we caught up with many years of Ice Boat expertise by keeping that Nite around to sail against.

At various times I have run across historical information about early landsailing in America. There is a story about a man named “Windwagon Smith” who is reputed in several history books as having rigged a Conestoga Covered Wagon with a sail and sailing across the prairie in the days of early settlers. My good friend Grant Follis, who designed the NALSA symbol found a photo taken in the late 1800’s of a group of very formally dressed people sailing on El Mirage Dry Lake in a stern steering gaff rigged landsailer with farm implement iron wheels. There also was a

businessman who rented a fleet of landsailers he had designed in the Mojave Desert in the late 1940’s and early 1950’s.

It is fascinating to see how far the sport has come since the first NALSA Regatta in 1972. My hat (make that helmet) is off to the Presidents and Race Committees both past and present who are committed to keeping dirtboating alive and well.

A Personal History of Landsailing in America

Chapter 2-

An invitation to sail the Sahara in 1966

On October 3rd, 1966, I received an official-looking letter from the “Comite D’organization Du Premier Raid Transsaharien De Chars A Voile” from Paris, France.

It read “Sir, Having heard that you are a keen Sandyachter, I am sending you an Information Note about a very exciting project of Sahara’s crossing in sandyachts.

It would be a great pleasure for French, British, Belgian and German pilots to have the company of an American team.

Those who come will no doubt have some difficult moments but their journey will be unforgettable. They will come under the Sahara’s spell, see the splendour of desert nights, be impressed by its silence, become dizzy with the vastness of its horizons and, from time to time, they will see what appears to be a vision, those great nomads, the “Hommes Bleus” who still live as they did in biblical times.

As you have a very hard problem for bringing on site your own sandyachts, we could take 2 engines made in France at your disposal, providing that you give me notice of your participation in a short time.”

The letter closed with “Those who wish to take part in this great sporting event must be scrupulously respectful of the rules and regulations of the crossing and feel themselves capable of navigating from 8 to 10 hours per day, of pushing or pulling their yachts over the difficult parts, of living like spartans, of sleeping under the stars for a whole



Don and the Windraider

“Those who come will no doubt have some difficult moments but their journey will be unforgettable.”

month, and finally of supporting sand storms or windless calm with the stoicism of a dromadery.”

Signed, Colonel J du Boucher, General Organizer.

I was excited and wanted to go on this trip. I went to my boss at The Irvine Company where I was working in the Planning Department to ask for a leave of absence. He said “You can go, but you’ll be looking for a job when you return”.

I decided I needed to check it out further. I wrote to my Dad who was stationed in Europe with TRW Systems Space and Rocket division and asked if he would be able to speak with Colonel du Boucher in order to see whether or not this sounds like a real venture or a wild-goose chase. After checking with the Colonel, he wrote back that his personal feeling was that this is a real venture and not a wild-goose chase. But, he said, like many matters of this type, the organization of the enterprise could turn out to be pretty loused-up. Dad said “that is only a personal feeling, with no basis other than my own judgment.” Based on Dad’s judgment and the fact that I really liked my job at The Irvine Company, I decided to pass on making the trip.

However, I took my twelve page invitation from the Colonel to a weekly gathering of friends at a boat building shop in Costa Mesa where Larry Pardey and his girlfriend Lin were building a 24

Sahara Camping with Don and the Windraider



foot sailboat they planned to sail around the world. Each Wednesday six or eight of us would meet for a pot-luck dinner, play guitars, tell stories and check out Larry's boat building skills.

After I read the Colonel's invitation letter to the group, Larry asked me if I was going. When I said I decided not to, he said he would be willing to shut his shop for six weeks in order to experience sailing on the Sahara.

Since each country was required to provide a team of three "pilots", Larry invited Richard Arthur, who had a boat building business in Costa Mesa, to join the American Team. Richard was willing to close his shop as well in order to participate. Larry and Richard then invited a friend Warren Ziebarth to join them as the third American "Pilot".

Before departing, Larry asked me to give him a lesson in how to sail a land yacht. I got permission to demonstrate my land sailer at the Newport Dunes parking lot in Newport Beach. Our very brief lesson lasted about an hour after which Larry and

his team boarded a plane for Europe.

Each team sailed in land yachts from their own country except for the American team. The yachts

The Americans were loaned some very old French landyachts that had tree limbs for axles. Occasionally, trees became available in the desert for replacement parts. This turned out to be a blessing because some of the yachts were almost impossible to repair in the desert.

from each nation were so different in design and performance that some always finished each leg of the trip way ahead while others were always lagging way behind. The Americans were loaned some very old French landyachts that had tree limbs for axles. Occasionally, trees became available in the desert for replacement parts. This turned out to be a blessing because some of the yachts were almost impossible to repair in the desert.

Both Larry and Richard were very good sailors and mechanics and tackled this adventure with great enthusiasm and creativity. Between them any problem their antique French land yachts de-

veloped was able to be quickly fixed allowing them to remain competitive. Warren Ziebarth turned out to be a great pusher in light air due to his low heart rate and good physical stamina both of which kept him competitive.

After sailing for thirty days, all pilots from each country were awarded the Mauritanian Medal of Honor after they arrived at Nouakchott where the adventure ended. Larry Pardey was even featured on the cover of the November, 1967 National Geographic Magazine in his borrowed French land yacht and a long detailed article of the trip appeared inside that issue.

Needless to say, I regretted my decision to pass on this adventure of a life time after the American land sailing team shared their adventure with me on their return.

After Larry returned to California he and Lin completed their 24 foot boat they named Serrafin. They got married and set off for what has become many famous around the world sailing adventures. They have gone on to build a bigger boat and continue sailing while establishing a successful career as lecturer, and writers of their adventures. They have published many books and articles about their travels.



Editors note:

Ultimately, Don would get two invitations to sail the Sahara. The one described here in Chapter two and another in 1972. He accepted the second invitation. That year's Raid Transsaharien produced these photos and the documentary movie, *Windriders of the Sahara*, Produced by National Geographic.

*Wind buggy on page one of this article has had a trailer retouched out of the photo.



A big jib always seems like a cool idea...Don reports that it didn't work.



Smith Creek Weather

BY: DUNCAN HARRISON AND
WILLIAM CLUNE, METEOROLOGIST**

Weather at Smith Creek Nevada, site of the 2014 Landsailing World Championship, brings to mind the Chinese curse, "May you live in interesting times." The weather in the American high desert is nothing if not interesting. Duncan Harrison and I have worked to try to make Bill Clune's excellent analysis of Smith Creek Weather accessible to mere humans. One of the advantages of a digital publication is that if we have screwed up horribly, we can fix it really quickly. Most of the anecdotal information here is Duncan's, which was run by Bill ; most of the more detailed weather stuff is really Bill's.

Smith Creek Dry Lake is located in central Nevada between Highway 50 and state route 722, approximately 45mi (72km) east of Fallon, NV, and 55mi (89km) west-southwest of Eureka Airport (west of Austin, NV). Smith Creek Dry Lake is approximately 8 miles long and 4 miles wide, and is oriented southwest to northeast general direction at an elevation of approximately. 6100 feet (1860 m) The ridge

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Dennis Bassano Photo Duncan Harris

height about 5 miles (8km) west is 2500 feet (762m) higher than the Smith creek playa. A couple miles east the ridge height is 1000-2000 feet (300-600m) (higher than the dry creek flat surface. The Smith Creek Dry Lake lat/long is 39.5N 117.8W.

CLIMATOLOGY:

Analysis and forecasting for the Smith Creek Dry Lake area is a multi-scale weather problem that defines the weather features according to horizontal distances.

Large scale - The large scale or synoptic scale weather frontal systems pass over central Nevada/ Great Basin or nearby from a general W to E (or NW

to SE or SW to NE for example) on a regular basis. Overall, typical weather systems are best described as three-dimensional with well-defined upper-level (UL) and lower-level (LL) features. For the purposes of the article and to assist weather analysis and forecasting effort, UL will be defined by the 500 mb level (~18000 ft/5500 m in elevation) while the LL will be defined as the dry lake surface (elevation 6100 feet). The analyzed and forecast UL and LL features will be used to define the general Central Nevada surface pressure gradient which determines the analyzed and forecast surface wind speeds at the Smith creek dry lake location.

Weak UL troughs usually pass over the Central Nevada region on a routine basis, even in summer. A strong surface frontal system associated with a typical summer UL trough is rare. Nevertheless, a passing UL trough may be sufficiently intense to create a stronger than normal surface pressure gradient. A stronger surface pressure gradient would generate surface winds that blow continuously day and night for several days before abating. These high surface wind speed episodes, "wind events", may be in the 30 to 40 mph range with higher gusts. Late-spring, early-summer weather events may include snow in the mountains and sometimes on the lake surface.



Photo Glenn E. Barclay

Small scale or mesoscale - Summertime local weather conditions on Smith Creek Dry Lake are governed by the high day-time surface air temperatures that spawn thermal updrafts that carry the hot air aloft. The hot air thermal updrafts can only rise so far in height before cooling with the cooler air aloft being



trapped by the mountain ranges on either side of the dry lake. At Smith Creek, This often leads to late afternoon and early evening winds blowing from the southwest including very pleasant “sundowners.” many evenings.

A JULY DAY IN THE LIFE OF SMITH CREEK PLAYA.

Morning

Clear, cool mornings, still air and beautiful sunrises - very nice! Sunrise on Smith Creek Dry Lake is usually beautiful and silent. Air temperature at daybreak may be in the low 40s, a nice respite before the daily temperature begins climbing toward the afternoon’s 80s and 90s! At daybreak you may find some dew on surfaces which will soon evaporate!

Late Morning and Mid-day Heating

Hot! With thermals/convection and the formation of small dust devils and cumulus clouds (puffy white) over the mountains surrounding the dry lake. (great time for photos!) As this mid-day heating progresses, look to see the cumulus clouds becoming heavier above the surrounding mountains.



Mid-day Heat

Things begin to warm up in late morning and early afternoon, but due to the elevation (6,000 FT/2,000 Meters) the air temp may climb to around 85 degrees Fahrenheit (29.4 C). But don’t let this fool you. If there’s no wind by mid-day, the sun burning down on the lake surface can heat things to well over 100 degrees as the playa heats and reflects the solar energy. This is a good time for keeping out of direct and reflected sunlight and drinking lots of water. Some relief from the heat can be found by soaking towels and wrapping them around your neck or head.

Some sailors get “suckered” out onto the dry lake by “sucker puffs” then left stranded as the wind dies off. You’ll be smart not to sail too far away from your shade and cold drinks!



WARNING! The direct sunlight at 6,000 feet elevation can seriously burn any exposed and unprotected skin! Apply sunblock! Better: wear light clothing to cover your skin. Be careful to protect sensitive areas such as nose, lips and ears as they may receive serious burns in just a few minutes. **AVOID DEHYDRATION!** Drink plenty of fluids.

Afternoon

Later in the morning (or early afternoon) the wind may come up and after some shifting will settle in and racing begins! As mentioned above the most reliable direction for the wind in summer is from the south west. On some days it’s likely the wind will be affected by a nearby weather front (large scale weather) and may blow all day long, keeping the lakebed cool and providing dirtboaters with good breezes to sail in all day!



Tom Garside shows his backside to the fleet!

Thunderstorms and Squalls

Thunderstorms sometimes occur in the afternoons. They bring cooler temps and gusty winds, both good and bad news! They may settle over the lake bed but are usually short lived, 30 minutes or so. Thundershowers and squalls over the playa will likely be accompanied by wind gusts to 50 MPH. They are sometimes accompanied by lightning and stir up huge clouds of dust, reducing visibility to dangerous levels. They may even drop a few raindrops, anywhere from a light shower to a full downpour. Any rain from a thunderstorm will usually soak into

the playa within minutes. Sailing in these conditions requires extreme caution!



Sundowners

As the sun is about to set behind the Desatoya Mountains, after the midday thermal cycle has run its course. We usually get a pleasant afternoon wind from the west called the “sundowner” which blows for an hour or two before shutting down. Sailing in the sundowner is some of the best sailing you will find! Sundowners tend to be very steady in direction and velocity and since the temps have fallen into the comfortable range, everyone goes out for an hour or so and has a wonderful sail.

Dust Devils

Dust devils are best described as “mini tornados” and occur frequently on our race courses. Dust devils are not true tornados as they are born of rising thermal air currents above a hot surface, are extremely localized, form from the ground up and are not too dangerous. True tornados form high in the atmosphere as a result of colliding hot and cold air masses, they form from the sky down. Tornados are extremely dangerous. Think of a dust devil as a “mini” wind event. They can occur alone or in clusters, sometimes associated with gusts or wind shifts.

Dust devils are good indicators of the wind strength, direction and thermal heating cycle. Late morning and early afternoon, when small dust devils appear along the margins of the lake, the thermal heating cycle is beginning to work. As the cycle strengthens the dust devils become larger and less transparent. Later, the surface winds begin to fill

and these dust devils can be seen “sailing” along in the general direction of the surface wind across the playa. Racing usually begins around this time! Look for dust devils to form a “chimney” of dust as they “sail” downwind. These “chimneys” can rise to several hundred feet above the lake bed. Small dust devils are relatively harmless and can be passed close by while sailing.

Strong Dust Devils

Stronger dust devils, associated with gusts and wind changes may appear by themselves or in clusters. They always “sail” along in the general direction of the surface wind and so it’s easy to predict the direction they are traveling and to avoid them! Larger dust devils, especially if you cannot see through them, should be avoided! Remember - they move along in the same general direction as the surface wind. Their “tracks” are easy to predict and avoid!

WARNING! Sometimes the random dust devil tracks through camp; blowing boats and gear about and damaging RV awnings or tents. Smart sailors and campers roll their awnings (closed) if the wind is strong enough for racing, a good practice that protects awnings. If a dust devil does pass through your camp, be prepared for things to blow and fly about. Afterward, you may have to chase a rolling helmet, maybe search around camp for missing gear!

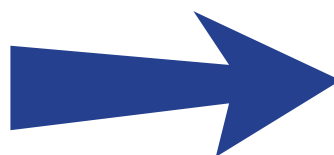
Twilight and the Stars Come Out

If you have never experienced a high desert starscape, you are in for a treat. The high altitude, low humidity and complete lack of city lights conspire to present a show lowland city dwellers never see—a spectacular display, not easily forgotten.

Lightning

Thunderstorms with lightning are not everyday occurrences at Smith Creek in the summer, but they are not unheard of either, as evidenced by Dave Moeller’s Poster remembering the 2010 Gale. There are many good and scary lightning articles on the Internet—Google at your own mental risk. The bottom line is that in a serious lightning storm you don’t want your body to be the tallest, best grounded thing around! The closest thing to a safe place on a dry (or momentarily wet) lake would be inside a car, not because of the rubber tires, but because the car forms a metal cage around you. If there is enough metal in the structure of an RV or trailer that would be the next best bet.

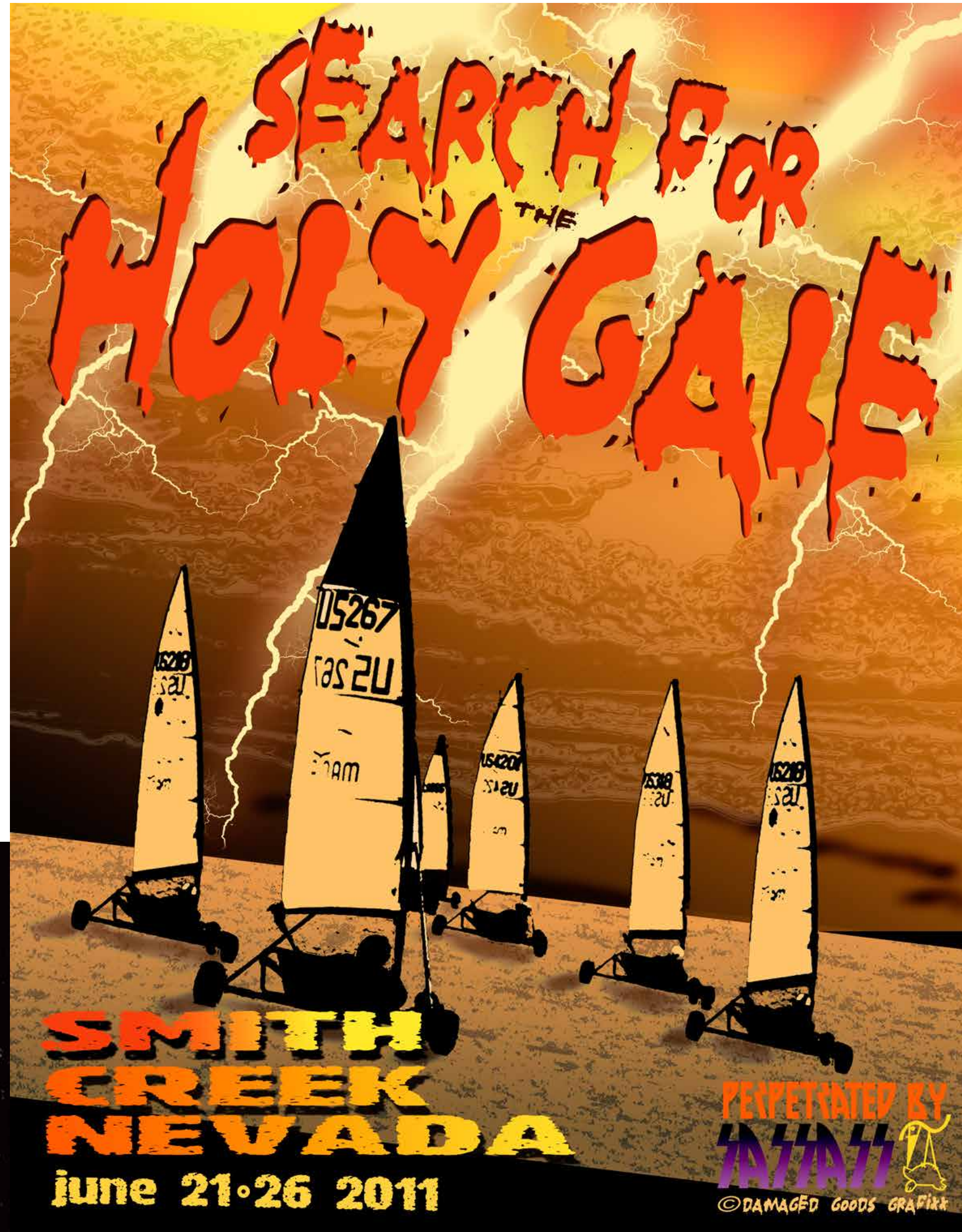
Poster Dave Moeller Damaged Goods Grafikk



AFFAD

(A FEW FUN FACTS ABOUT DIRBTOATS)

DIRBTOATS ARE NOT MADE OF DIRT AND NEVER HAVE BEEN. “DIRBTOAT” IS ANOTHER NAME FOR LANDSAILER OR LANDYACHT, BUT THESE YACHTS DO NOT SAIL ON WATER. THEY ROLL ON TIRES AND SAIL ON DRY LAKES CALLED PLAYAS, WHICH IS WHY WE CALL THEM DIRBTOATS. DIRBTOAT SAILORS ARE CALLED PILOTS, SAILORS OR DIRBTOATERS.



TEST YOUR KNOWLEDGE LANDSAILING TRIVIA: ILLUSTRATED EDITION



You know that old “line” about how if someone “claims to remember the 60s – they probably weren’t there?” Here’s a similar idea where we remind sailors of the past regattas by giving them some lines they may remember. Or maybe they won’t!

Instructions:
MATCH the TEXTS (lines?) with the YEAR and REGATTA they were used.
(Some photos may hint at correct answers but some may not!)



F

No Gusts No Glory!
Rotate the photo 114° CCW
for full impact.
Where? When? What regatta?
Who?



H



A

For extra credit: Translate! →
There is a possibility you have seen this
as a bumper sticker



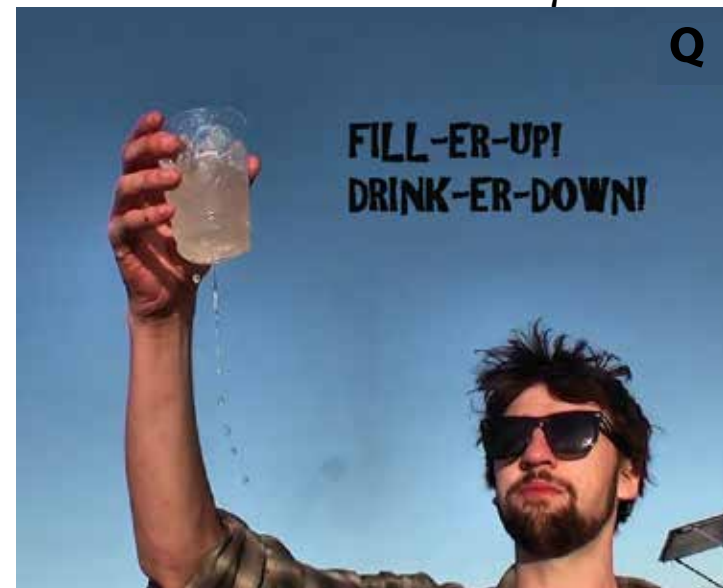
J



G



Tant De Chiens...
Si Peu De Recettes!



Q



E

... Shut UP, hold TIGHT and Start PRAYING ↑

LANDSAILING TRIVIA:



D



C

↓There is a possibility that the photo the quote and the shirt are from different regattas. ↑



C



X



B

↑So much potential extra credit! Where ↑ was the camera located for this shot?

↳ Can't You Think Outside the box?



EXTRA CREDIT: tell us the year when the Cow to Cow 500 was held on Edwards Dry Lake, Nevada!

←
←

POTENTIAL TRIVIA ANSWERS

1. 2009 Holy Gale
2. 2011 Holy Gale
3. 2000 ??? Regatta
4. 2006 Holy Gale
5. 2010 Worlds, De Panne, Belgium
6. 2012 Holy Gale
7. 20?? Holy Gale
8. 2006 Holy Gale, Black Rock Desert, Nevada
9. 2011 Holy Gale (SASSANATOR CAM)
10. American flag, Holy Gale
11. 2005 Worlds, Le Touquet, France
12. 2008 Holy Gale, Black Rock Desert, NV

for "correct" answers see page 29 .

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World's Fastest Sailers Visit Ivanpah

BY: BOB DILL

Vestas Sailrocket at Speed Photo Helena Darvelid, Pilot: Paul Larson

At this year's America's Landsailing cup we were visited by Paul Larsen, Helena Darvelid, Richard Jenkins, Adam Fisher and Andrew Mayes. Paul is the SailRocket pilot who, in November, set a new world record for the WSSRC 500 meter top speed. Paul is also the project leader, and blog writer. Helena is the reserve pilot, photographer and, along with the rest of the team, repair technician. Richard is well known to the dirtboating community with his successful campaign to capture the world record for top speed in a sailing craft. Adam writes for WIRED Magazine. Andrew is a college friend of Richard's who is a business consultant working for Moorehouse in the UK.

For anyone who is not up on what the SailRocket team did in Namibia in November, I suggest reading Adam's article in [Wired](#), or watching [CNN's Mainsail](#) show. For a more detailed picture, read [Paul's Blog](#). It is a detailed rundown of the trials and tribulations (there were

many) of eleven years of trying to break the 500 meter water sailing speed record.

The short version is Paul and his team developed sail rocket in two iterations. The SailRocket 1 project started in 2001 and was launched in 2004. At that time the record (46.52 knots) had been held for nine years by Yellow Pages; a somewhat similar design. SR1 had high speed stability problems and it crashed several times. The next to last crash was

In Paul's own words in an email to Bob:

The trip to Ivanpah was very inspirational on a number of levels. It's great to see a group of clever and open minded people all coming up with their own different solutions to the same problem. The wing technology was especially interesting particularly with respect to the control systems. I spend a lot of time thinking about all this stuff but you just can't beat having the opportunity to go and see what a bunch of other people have come up with, especially when their solutions are full-scale and fully operational.

Sailing is changing fast. As we look to more open waters to see if we can apply some of the principles behind the success of the Sailrocket boats, I know that we have to optimize many of the same aspects that you see as being critical in efficient, high apparent wind-speed boats such as land yachts. The high stability concepts behind Sailrocket gave us a huge amount of power yet we still focused heavily on aerodynamic drag reduction and overall efficiency. By doing so we have shown that we can move into your territory speed-wise. The AC72 yachts are also proving to be both very fast and very efficient. They are also spending nearly all their time at high apparent wind speeds and tight angles, hence they also are focusing more and more energy on making their platforms as aerodynamically efficient as possible. So, it was great to see what the people who have been at it the longest are up to (you guys). A lot of that technology is still seen as being high tech in wet-boats and yet you guys all make it look pretty simple and accessible i.e. not so scary. I like that.

Sailing the more powered up land yachts reminded me of sailing both the Sail-rockets. The tight cockpits, the speed and proximity of land and also the simple but quick workload in the cockpit. Most of you guys would have no problem sailing my boats.

I went home more enthused with getting on with the MkIII than I thought I would be. As I write this, the house is a workshop and the third iteration of the prototype is drying in the spare room above. The hospitality was much appreciated. I'm a real fan of what you guys are up to and in to.

Cheers, Paul.



Adam, Paul, Andrew, Helena and Richard



Richard Launching Paul

the most spectacular and the last one banged up Paul pretty badly (and was close to doing worse). Vestas Wind Systems A/S had become the main sponsor by then. They are the largest wind turbine manufacturer and installer in the world. The Vestas SailRocket 2 was launched in March 2011. The record by then had increased to 55.65 knots by Rob Douglas on a kiteboard in Luderitz, Namibia. Speeds this high are in the realm where conventional (fully wetted) foils are prone to cavitation which typically involves higher drag and lower lift. The speed constraints resulting from cavitation is often described as the sailing equivalent to the sound barrier. See the accompanying article for a brief explanation of cavitation and ventilation and how the team figured out how to get the main foil on SailRocket to work properly.

What SailRocket did during the 2012 campaign was simply remarkable. The team achieved a huge increase in speed: 9.8 knots. This is four times the increase achieved in a single year by any other 500 M record holder. Prior to this, speed sailing appeared to be a pretty mature game with increases coming in small steps. Paul achieved three 500 M records in 2012 (59.23, 59.37 and 65.45 knots). He also landed the Nautical Mile record in 2012 at 55.32 knots on a course that had a bit less of an outrun than was desirable, making for an exciting ride.

To put this in the perspective of land sailing, his peak speed was 78.3 mph. This is the upper end of the speed range achieved by the fastest open class



The fence can be seen on the top of the foil just above the bend in the foil. Photo: Helena Darvelid

racing landyachts on the downwind legs on windward-leeward race courses in high winds. The fastest iceboats (Skeeters) rarely show speeds over 78 mph. Admittedly this is a bit of an apples and oranges comparison: the most evolved racing landyachts occasionally see speeds in the low-mid 90 mph range in over-powered reaching situations. On the other hand, the SailRocket design is still evolving. Speeds above 90 mph seem plausible. Going faster than Richard Jenkins' 126.2 mph seems unlikely for several reasons but I am not ready to rule the possibility out entirely at this point.

Youtube [video of the fastest run](#) .

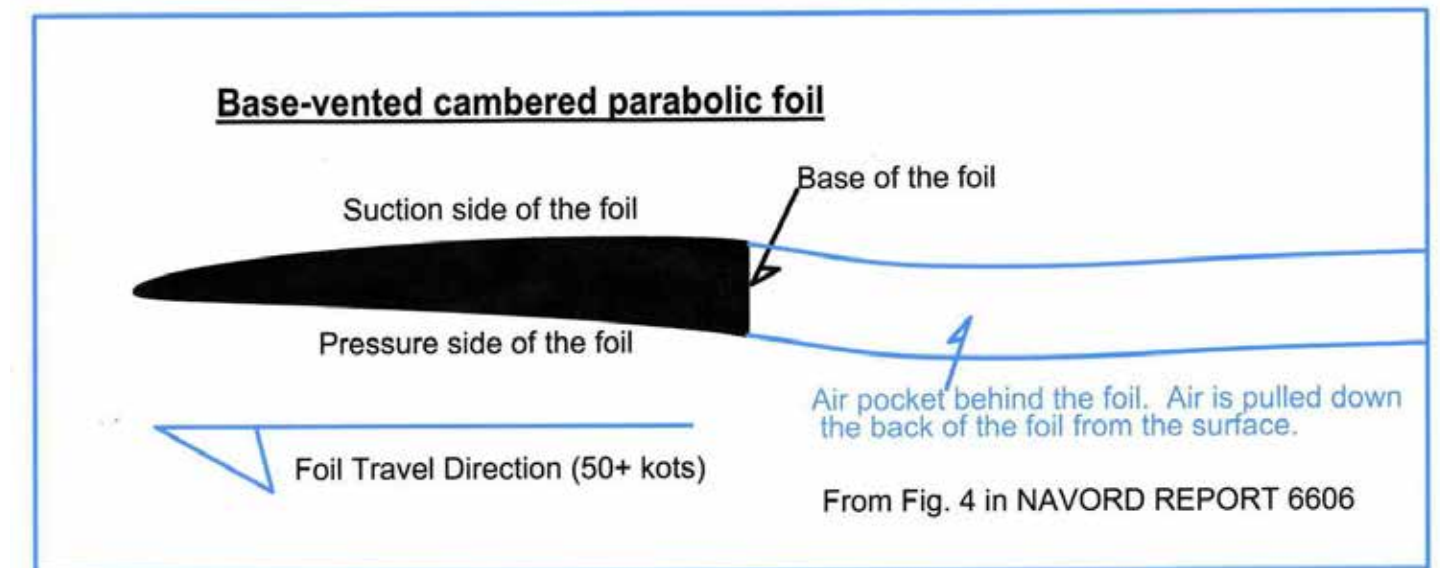


A Brief Look at Cavitation and Ventilation

Cavitation occurs when the pressure on the surface of a foil is below the vapor pressure of the water causing the water to boil. Ventilation typically occurs when air from the surface is sucked into the low pressure areas on a foil from the surface. Both cavitation and ventilation tend to abruptly decrease lift and increase drag. Ventilation can usually be minimized with fences to block surface air from finding its way down the foil. (Fences are thin plates that are perpendicular to the foil surface and parallel to the water flow over the foil.) Cavitation is generally managed by foil design.

Below 50 knots conventional, fully wetted foils are

usually the most efficient. As speeds get close to 50 knots cavitation pushes the design toward thinner shapes with less curvature. In the 55-80 knot range, base vented foils perform best. They are an intermediate design between a conventional fully wetted foil and a super-cavitating foil. A super-cavitating foil has a cavitation or ventilation bubble on the suction side and the pressure side is essentially a planing surface. They are often the best solution at speeds above 80 knots



Base venting works by allowing air to be sucked down into the space behind the base, creating an air pocket behind the foil. This significantly reduces what would be much higher suction pressure on the base if there was a cavitation bubble there. The wedge shape allows the foil to have low curvature to make it more cavitation resistant on the pressure and suction sides. It is also reasonably thick for strength and stiffness.

The foil the SailRocket team used for the 2012 campaign, like some of their previous foils worked well at speeds into the low 50 knot range.

No matter what they did they could not go faster. They decided to try putting a fence on the foil a little above the right angle bend in the foil (see photo top of page). This inhibited surface ventilation of the suction side of the foil, allowing the foil to perform the way they had designed it and opening the door to higher speeds.

[Link to very technical PDF focusing on vented and supercavitating foils.](#)



GreenBird slowly building toward 126 in the mirage photos: Bob Dill

Ivanpah: The Fastest Sailing Surface on the Planet.

BY: DUNCAN HARRISON

Landsailers, dirtboats, are fast, particularly by water sailing standards. The typical, small, car-topable, home built or production landsailer, which an ordinary human can purchase for less than \$2500, is faster than a multi-million dollar America's Cup-winning yacht!

Ivanpah Dry Lake, California

Imagine sailing at 90 mph (that's nearly 80 kts!) in 30 mph of TRUE WIND.

Now imagine it's your first time landsailing and you catch a puff - the landsailer instantly accelerates to over 40 mph (approximately 35 kts!). You continue sheeting in as the yacht accelerates rapidly to 50 mph . . . this is landsailing! Helmets are required!

WARNING!
Your first time landsailing may be a HOLD TIGHT, SHUT UP and START PRAYING experience!

These speeds are regularly attained by sailors who also call themselves DIRTBOATERS. They can be found several weekends out of the year sailing on dry lakes called PLAYAS. The Western U.S. is dotted with numerous playas having names like El Mirage; Superior Dry Lake; Smith Creek Dry Lake; Misfits Flat; Alvord Dry Lake and least known (to ocean sailors) but most notorious to dirtboaters for it's combined large flat surface and windy conditions is Ivanpah Dry Lake. Just possibly the fastest sailing surface on the planet!

A Short History of Landsailing Speed Records:

2009	Richard Jenkins	Greenbird	126.2 mph	203.1 kph	109.7 kts	Ivanpah Dry Lake, CA
1999	Bob Schumacher/ Bob Dill	Iron Duck	116.7 mph	187.8 kph	101.4 kts	Ivanpah Dry Lake, CA
1999	Bob Schumacher/ Bob Dill	Iron Duck	108.8 mph	175.1 kph	94.5 kts	Ivanpah Dry Lake, CA
1993	Bertrand Lambert		94.2 mph	151.5 kph	81.8 kts	Berck-sur-Mer (Beach, France)
1976	Nord Embroden	Friendship	88.4 mph	142.3 kph	76.8 kts	Superior Dry Lake, CA



Far left: Greenbird
Center: IronDuck
Both at Ivanpah

Nite landsailer rips upwind on Ivanpah Dry Lake (Sequence: Bob Dill)



Ivanpah: The Fastest Sailing Surface on the Planet. (continued)

How Do Dirtboaters SAIL So FAST?

To understand how these "landyachts" can reach such high speeds is to understand sailing at it's most basic level. The rolling resistance of tires on dirt, or skates on ice, (iceboating) is much less than the friction of a conventional sailboat hull sailing on water. The extreme width of a landyacht's rear axle resists tipping over as a keel on a sailboat does but without carrying the extra weight in lead.

Since the landyacht is free of the conventional friction and mass of a water boat, the next step is to convert true wind to apparent wind. It's all about getting the yacht "hooked up" to the apparent wind and holding tight! As the landsailer accelerates, so increases the effective "apparent wind". The sailor sheets the sail in tighter to match each new moment of acceleration until maximum speed is reached. Nowhere in sailing is the phenomenon of hook-up more apparent than in land-sailing where from a complete stop it's possible to accelerate to 35 mph in say 50 yards and to 45 mph in the next 50 yards and onward to top speeds of . . .

Racing on Ivanpah Dry Lake

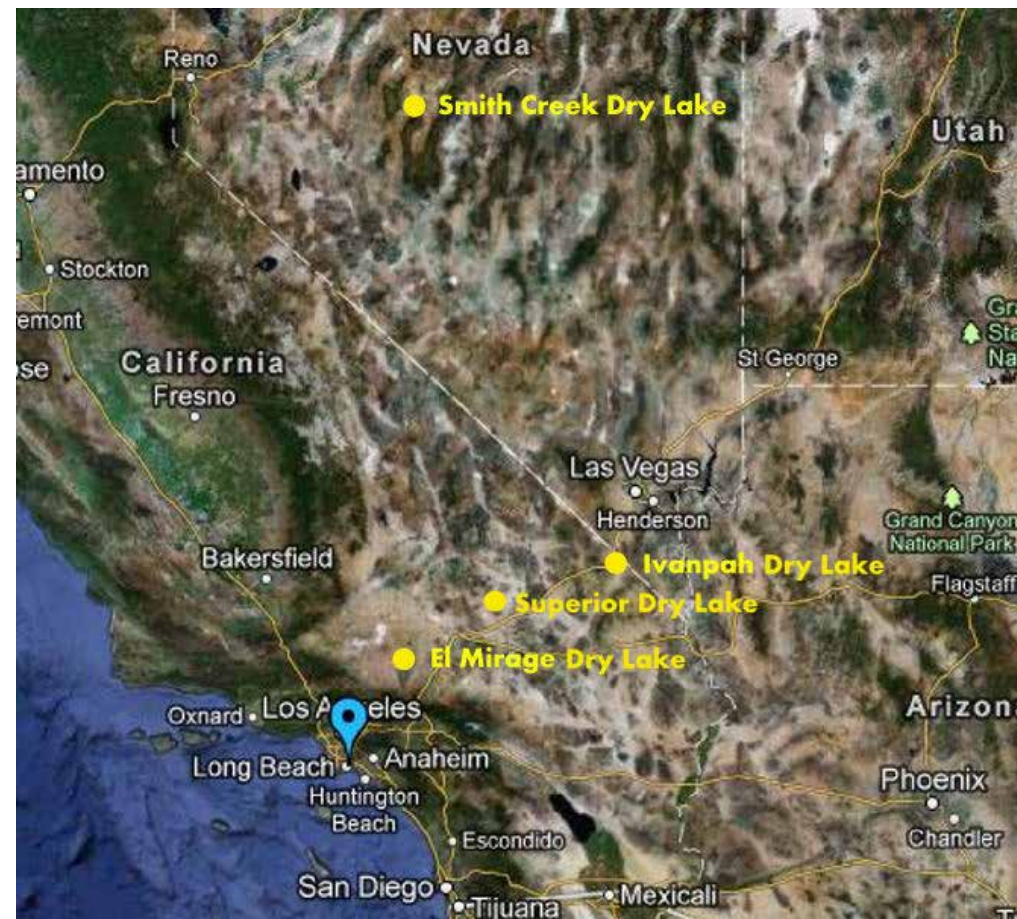
Dirtboaters from all over the U.S. gather during the last week in March and during the Thanksgiving Holiday on Ivanpah Dry Lake.

The March regatta is the premier American landsailing regatta known as AMERICA'S LANDSAILING CUP. 80+ competitors race in fleets ranging from Miniclass yachts upward to International Class 2 yachts. Races are held daily (wind permitting), spectators are welcome. Watching (or participating) in races where yachts regularly round leeward marks at 60 to 80 mph is amazing! You might even see a world speed record broken! If you get to sail, you'll surely sail faster than you have ever imagined possible!

Visit a landsailing event, check out the land-sailors, meet the sailors and watch a few races. It's quite an experience. There's always some time to catch a ride or try out one of the yachts. Later, walk around the campsites and visit some

friendly sailors, parties and campfires. If camping is not your thing, hotel accommodations are available In Primm Nevada only a few yards off the lake.

left: Gerry Lampert, smiles at a personal best—over 60 mph two-up in a Manta Twin!



Getting There:

There are several Landsailing venues within relatively easy driving range from California water sailing locations.

Ivanpah dry lake, for example, is right off Interstate 15 on the way to Las Vegas from Southern California.

Onboard camera catches Dennis Bassano hiking a tire at speed. Photo: Duncan Harrison



NOTES FROM HOLY GALE 2013

DUNCAN HARRISON



Smith Creek June/July 2013

June 23 - I arrived on Sunday afternoon and set up camp. The sailors already there told of great winds and great sailing for the past 2 days. We've all heard this "You should have been here YESTERDAY!"

June 24 - (Monday) Great sailing! Wind from the SW to maybe 20 MPH. Pick up races involved sailing around the island (no marks were out, yet) clockwise then counterclockwise. We ran several such practice races then raced (a few times) to the Cow and return.

June 25 - (Tuesday) Still more great sailing! Pretty much a replay of yesterday.

June 26 - (Wednesday) Winds were lighter and the day became a real scorcher as temps soared and the playa reflected the heat. Not much sailing until the sundowner "kicked in."

June 27 - (Thursday) Registration and I think we got off one full round of racing after another SCORCHER of a morning. Plus a 2nd race in Manta Twins. Racing was in light shifty winds with huge holes on the race course. Instead of lead changes during racing, we saw entire turnovers where the 1st became last and the last became 1st! Where you finished had a lot to do with luck - except for Carl Eberly who always finished at or near the top of the fleet, every race!

June 28 - Friday turned into still another SCORCHER

around midday. Later in the afternoon we ran some more light air races. Sailors struggled to stay on the same lap as leaders! Lots of lead changes - Loren sailed his Manta Twin into a huge lead of almost 3/4 mile and held it to the last turn where he sailed into a hole and saw his lead evaporate faster than a spilled rum drink on the playa! OUCH!

July 2 - (Saturday) Most everyone hung in there after being cooked like fish sticks in the OPPRESSIVE HEAT. This was our 3rd day under a region wide "high heat alert" and while temps on Smith Creek Dry Lake were not deadly hot (high 90s to low 100s) in places like Death Valley; reports were that temperatures soared to 128 degrees and hotter!

There were some changes in our weather though as several cumulus clouds formed over the Shoshone Mountains and turned into thunderstorms. Giving us a "fireworks show" as the lightning strikes rained down to the SE of the playa!

Then, the thunderstorms drifted north over camp bringing cooler temps, huge gusting dust storms (whiteouts) and the chance of getting hit by lightning! Oh What FUN! Still, the dirtboaters managed to run the enduro race. This years enduro was run "in reverse" of last years with starters sailing NE and leaving the island to port; the Cow to port and then finishing upwind at the island.

Enduro Race (Manta Twins/small yachts)

I can tell you this was the best enduro in my short landsailing career! The fleet launched off the start-

ing line on port tack and was soon tacking to starboard to round the north end of the island. I remember rounding in maybe 6th or 7th position at that time (passing Curtis Obi at the mark!) and we all turned downwind together and began our 5 mile stampede to the cow. YEE Hah! Let's GO!

Carl Eberly (leading the race) sailed a slightly hotter angle and was last seen way over to the right as I passed him and several landsailors on my left to leeward. The last Manta in my way was Brett Gripenstraw (Santa Cruz) whom I rolled about 5 minutes later! We all ripped along, hot and fast toward the bottom of the lake except for Carl who had to jibe and come back to the fleet. Near the south shore the leaders of the flight (Dave and Blake in the Fislys along with Jack and Sam in the PROMOs) finally spotted the Cow and jibed to port. We (Mantas) had also been sailing too high, and now also jibed to fetch the Cow.

As I had been a bit overstood this gave the followers a chance to jibe early (cutting the corner) and catch the me. On my yacht, what had been a comfortable lead turned into a blasting mark rounding with the herd stampeding on my heels! Whoa Nelly! Let's GO!

The best was yet to come though:

We all were forced to beat our way 5 miles to the finish. There were tacks to cover followed by more tacks to cover as Carl and Warren favored the right side with Brett and John Buchanan favoring the left side of the lake! I tried to cover from the middle but was forced to go one way or the other and so covered Carl and Warren.

The last 2 miles to the finish:

Left side came together with right side and I (Hey,

Diddle Diddle! - sailing right up the middle!) got passed . . . about 6 times! It's hard to say for sure but Carl led the race for a moment; Warren led for a time; John led for a moment; Carl got in front again; Warren and Brett were tire to tire and every tack seemed like a duck! My eyes spinning in my head reminded me of last nights dance with the SAS-SANATOR! OUCH!

Then things really got messy as the wind suddenly lightened!

All I know is that somehow I finished the race in 2nd place behind Brett Gripenstraw and in front of John, Warren, Carl and the herd! WHEW! Guys! That was some of the best racing I've been lucky to participate in.

Thanks!

Duncan
US 453

TRIVIA ANSWERS:

(not upsidedown, since I don't want to be responsible for broken monitors)

F- 2012 Holy Gale; Dave Farmer's crash

H- 2006 Holy Gale, Black Rock

J- Holy Gale American Flag

A- 2009 Holy Gale, 1st time on Smith Creek

(I would have sworn it was the endless road to Superior for the Nord Nationals)

G- 2005 Worlds, Le Touquet, France

So many dogs, so few recipes.

B- 2011 Holy Gale

E- 2010 Worlds, De Panne, Belgium

D- 2006 Holy Gale

C- The line ALC 2000, Shirt Gale 2000, the gratuitous girls: ALC most any year.

X- There's and Alien in my Soup! Holy Gale

I- Gale 2011 Camera in the Sassaator

L- 2008 Holy Gale, Black Rock

Extra credit: 1998 Cow to Cow 500

Double X Credit: Where IS Edwards Lake?

