News NALSA

Fall, 2004
A publication of the
North American Land Sailing Association

From the President

Greetings. Landsailing is alive and well. There have been no less than eight racing events since the last newsletter in March. Much of this activity has been on the lakes around Reno. Recent events include the Pony Express on Smith Creek, the Big Boat Coalition meet on the Alvord and the White Lake Gathering near Reno. There are articles on a couple of these events on the following pages.

Upcoming events at Ivanpah Dry Lake include the Sirocco Owners Rally on November 10-14, The NALSA Fall Regatta on Thanksgiving Weekend and the 2005 Americas Cup on March 20 to 25 (the week leading up to Easter). Please see the Events page on NALSA.org for details for upcoming regattas.

Here in Vermont this year's spectacular fall color is almost gone so early ice can not be all that far away. I hope to see you all in March, if not before.

Bob

Bob Dill
NALSA President

What's Inside...

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Scirocco Owners Rally

Just a reminder that 11/11-14 will be the dates of the 3rd Annual Desert Classic at Ivanpah Dry Lake. It should be a blast. Right now it looks like about 20 boats and 25 pilots are planning to take part. If you need more information, email the factory at Daniel@windline.net If you need to get in touch with me I will be available by cell phone at 847-691-3618 starting next Wednesday night.

We plan on being on the Playa by mid-morning on Thursday. Likely we will be on the east side, but call my cell and confirm. If you can not get through I will try and change the message on the toll free with information. That number is 888-461-9463.

As an added bonus we are scheduled to be visited by 2 television crews during the rally. Come on out and use up your "15 minutes" of fame, it should be a blast.

For those of you who couldn't make this one, stay tuned. We are trying to set an East Coast rally for April and you are more than welcome to sail with NISC (the factory's home fleet) over the Thanksgiving weekend when we typically will sail every day that the weather permits.

Sprint Updates

We have been building Sprints like crazy. As a matter of fact, the demand has been so high we can't even keep a demo model around the shop. This little boat is a blast and a half to tool around in and simple to transport and set up. I know a number of folks have put this little boat on the old holiday wish list. If you hope to see one under the tree, don't wait order now!

As an added incentive we have tweaked the chock design to allow the blade pack to be fitted to the Sprint. We hope to be testing it shortly, but really expect no problems.

We are looking forward to seeing you at Ivanpah!

Cheers!

Daniel

Daniel Feldman
Wind Line International

Pipeline Update: Great News!

by Bob Dill

Last spring I spoke to Ed Day, the area manager for Kidder Morgan (the pipeline company). Ed informed me that they have plans to move Valve 190 off the playa this fall. This removes the worst hazard to navigation on the lake.

The soon to be moved valve

Marked Stakes

There are still two sets of monitoring wells in the same area and a corrosion station as well as the pipeline stakes every 1000 feet. During the 2004 AC we started setting the start-finish area around these obstacles to minimize the need to sail near them at speed. We will continue to develop this concept this year. I review these plans further in the next newsletter.

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Northern Illinois Sirocco Club
http://www.landsail.org/northern_illinois_sirocco_club.htm

The BBC 2004 at the Alvord Desert - *by Phil Rothrock*

The BBC (Big Boat Coalition) met at the Alvord Desert in the SE corner of Oregon over Columbus Day weekend in October. The BBC is a group of large boat landyacht enthusiasts who get together every year at the Alvord at this time to practice racing and share ideas to improve performance. This year was no different. The discussion ranged through topics such as tires, wheels, bearings, axle construction, yacht weight, soft sails vs. wings, wingmasts, flaps, aspect ratio, curvature of leading edges, battens, yacht balance, control, and tons on yacht construction. And the sailing was phenomenal! We were able to sail every day in winds ranging from li ght to over 20 mph.

The Big Boat guys this year consisted of Dennis Bassano, Allan Wirtenan, Lester Robertson, Ben Gooch, John Eisenlohr, Lance Hossack, and Phil Rothrock – certainly a good representation of top contenders at the America's Cup. Both Ben and John brought new yachts to try out. Ben's is a gorgeous large version OTT currently sporting a plain wing with a flap but he plans to build another wing for it prior to March. It weighs less than 200 Lbs. John's is a larger version of his all wood Wingnut to make it a full Class 5. John currently plans to build an even taller rig with a larger platform to race in Class 5 next year. Phil plans to have a wing with a removable tip that would permit racing in Class 5 as well. Lester and Dennis chased each other around all day long with their big Class 3 sails on, trying to get in a little practice being overpowered for beach sailing in Europe next year. They would sail for hours and end up virtually on top of each other at the end – very close! Allan continues to slip around the course effortlessly – he'll be tough to catch next year! But we weren't limited to big boats this year. There was quite a large group of smaller

yachts from Oregon, another large group that came down from Montana, Wally who came from Colorado with his Ice Flyer, and a couple who came all the way from Detroit by car pulling a trailer to attend this event! Incredible! They win the distance trophy!

The Alvord Desert has to be one of the world's best venues for landsailing! Seven miles across and about 12 miles long there is plenty of room for everyone. The big yachts set up a course a couple of miles out and that still left a huge expanse for the smaller yachts to sail. Cement hot tubs for washing up after a day's worth of dirt boating. Temperatures were perfect – sunny but not hot, pleasantly cool at night but not extreme. If you've never experienced it, put it on your calendar for next year.

The Return of Class 5!

by Phil Rothrock

John Eisenlohr has developed a gorgeous all wood Class 5 yacht named "Wingnut" that is a super competitor! In fact he has two of them! That has caused some of the rest of the old timers to begin to think smaller and lighter. We're getting too old to be lugging these heavy things around! Charlie O'Leary came out with a Class 5 some years ago that just cleaned up in the racing – so much so that it seemed that all of the other Class 5 pilots just gave up and we witnessed the demise of Class 5. Now it looks like we may see the return of the class with John's two yachts along with Ben Gooch, who has just completed a new smaller yacht, and Phil Rothrock is making a Class 4 wing that has a removable tip taking it down to Class 5, and Art Rothrock's old Class 5 yacht Mariah is being restored by Robert Bogaard, and I think Dennis Bassano has a Class 5 sail for his.

The smaller yachts have become much faster, easier to haul, easier to set up, and fun to sail! They're also within the reach of many more pilots in terms of construction costs, storage, etc.

So...Class 5 pilots, gear up! We'll see you on the start line!

Playaology #3

What Moves the Mysterious Stones of the Race Track Playa: Wind, Ice or Aliens?
by Bob Dill

At the end of a long, rough, road in a remote part of the Death Valley National Monument is a longstanding desert mystery. The Race Track Playa is named for the many drag tracks made by rocks ranging in size from a fraction of a pound to 700 lbs. Since 1948, scientists have been publishing studies but, since no one has ever seen the rocks move, scientists are left to speculate on the exact mechanism. Movement events are rare, occurring during the winter every couple years. Sharp and Cary's 1976 paper said it this way: "Some Immutable law of nature probably prescribes that movements occur in the darkness of stormy moonless nights, so that even a resident observer would see newly made tracks only in the dawn of the next day.

The prevailing scientific theories are: 1) propulsion by strong wind plus a very slippery wet playa or 2) ice sheets on top of a flooded playa that carry or push the rocks around. The less scientific theories include beings from very far away, rapid tectonic tipping creating a rock toboggan slide and mysterious magnetic forces.

There are similar tracks on other playas but none have as many or such large stones. Race Track is unusual as it has a cliff at its south end. The rates of tectonic fault movement around Death Valley are so rapid that the

alluvial fan that almost always forms between a cliff and a playa has not had time to develop here. The rock face is considerably more effective at delivering larger stones to the playa than an alluvial fan.

The tracks show a number of confounding characteristics that make it difficult to decide how the rocks are moved. The' wind only' supporters point out:

1. A couple relatively small rocks moved even with a corral of iron stakes pounded in around them. In one case, one moved and the other didn't.

2. Rocks often have an irregular path, especially at the end of their track. Some double back, or have lateral jogs or even have circular paths.

3. The rocks occasionally tumble or rotate, which would seem impossible if locked into an ice sheet.

4. All the tracks are not parallel, as one would expect if the rocks moved in a large ice sheet.

5. Rocks with keels seem to go straighter

6. There is one report of movement during the summer.

7. Cahill and Tomrello (1996) report that on Owens Dry Lake they found that the wind gradient above the ground is much more abrupt than is normally assumed. They found that the peak wind speed 2" above the playa surface was 90% of the 30-foot speed. (So much for the notion of needing tall sails to reach up into the good wind!)

8. They also reported that extreme wind speeds on the order of 150 mph regularly occur on playas.

9. There is a layer of very fine clay under the rocks. When wet, it is quite slippery and could be the lubricant that allows the rocks to move. Typically this layer blows away relatively quickly after the playa dries.

There are fewer papers suggesting ice is a necessary ingredient. The ice arguments are based on observations that:

1. There are many examples of rocks that are widely separated but follow very similar paths, often with long, gentle curves. It is very hard to imagine that gusty winds would push different rocks so uniformly.

2. The coefficient of friction of the sharp edged stones on wet playa is more like 0.6 to 0.8 than as low as 0.26 measured by 'wind only' proponent W E Sharp.

3. The ground level winds required to move the rocks at these higher friction coefficients are 175 mph for a 44 lb cube shaped rock and 440 mph for the 700 pounder. (I did some crude experiments in 50-60 mph winds on Edwards Creek in 1992. The 15 lb rocks I was using did not come close to moving on either a wet or dry playa). *(continued next page)*

4. The wind needed to move an ice sheet with embedded 40 lb rocks is 10 mph for a kilometer scale ice sheet and 60 mph for a 30 ft scale sheet.

5. The rock face is 800 ft high and blocks the wind for some of the paths making very high winds even more unlikely.

6. The rocks moved in the corral experiment could have been moved by broken ice (or by a thin ice sheet that sheared out at the steel corral posts but still poked fingers of ice into the corral to move the smaller of the two rocks.) In my view ice offers the best explanation for most of the track configurations and does not stand in the way of any of them.

Ice has many complex and not widely understood behaviors that do not appear to have been given full consideration by any of the investigators. The following are some additional points:

1.Reid pointed out that the odd motions observed in some rocks could be from broken ice sheets. Ice sheets can melt locally; push up on the lee shore or over-thrust (run over itself). This creates open water in what had been a 'locked in' sheet giving space for pieces of the sheet to break off the leeward ice edge and blow across the open water. Plates will accumulate on the lee side and jostle each other around as the wind pushes the loose plates and new plates collide with those that are already there. This could easily create the irregular patterns observed at the end of many tracks.

2. Tumbling and turning rocks and sitz marks (from rocks being parked for a while in one place) are all explainable by rocks coming loose in the sheet. Rocks strongly absorb sunlight, which can cause them to melt free but still be dragged along by the sheet.

3. Thin ice sheets may move some rocks and shear around or climb over others.

4. As for 140+ mph wind speeds claimed be common for Owens lake and other playas, I have looked at a lot of wind records for various playas and 70+ mph speeds are extremely rare and tend to be associated with thunderstorms, not winter rainstorms.

5. The single observation of summer movement mentioned in one report was not made by one of the scientists. Also, the likelihood of crop circle makers being on the playa is highest in summer.

6. It is hard to see how the fine clay layer (the 'wind only' proponent's lubricant) would settle out of the water riled by winds strong enough to move rocks. It is better explained with an ice sheet on the surface of the water. The fine clay will settle happily no matter how windy it is.

I expect this will only be properly settled when good observational evidence shows if there is an ice sheet

involved in a large movement event. Given Sharp and Carey's immutable law it may be a while before we have a definitive answer.

Note 1) The pictures are from http://www.billandcori.com/deathvalley/dv_moving_rocks.htm (with permission) See their site for other excellent pictures. A google search on 'sliding stones death valley' will yield many sites. The USGS site has the references for the papers used to prepare this article. Contact me if you would like more information.

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