News NALSA

Spring, 2004
A publication of the
North American Land Sailing Association •

Notice of Race

2004 America's Cup Regatta
3/21/04 through 3/26/04
Ivanpah Dry Lake, Primm, NV, USA

Firm dates are Sunday March 21 through Friday March 26 (As usual, Saturday the 27 is kept in reserve if necessary to complete the event).

Location: Ivanpah Dry Lake. We will have a Tent again this year and will be serving two meals on the Playa. We expect 6 days of sun, fun and great sailing on one of the world's premier sailing venues.

Where to Stay: The Primm Valley Casino reservation number is 800-386-7867 **Our discount number is: group code SCL0321.** Whiskey Pete's is generally the least expensive of the three casinos.

The RV park at Primm Valley is out of commission. Jean (15 mi North on I-15) does NOT have RV facilities. The closest we know about are in Las Vegas. We are working on the possibility of having the Porta Potty pump-out truck take care of RV's on

What's Inside...

From the President

The 2004 Americas Cup is upon us again. We are looking forward to another great racing event. This issue of *NALSA News* provides information on the event. The NALSA website (www.nalsa.org) will have updated information as it unfolds. There is a pre-registration form in this newsletter (and on the website). You can save a few dollars and help us plan the event if you pre-register.

We hope to see you all there.

Bob

Bob Dill
NALSA President

the Playa (once or twice during the event).

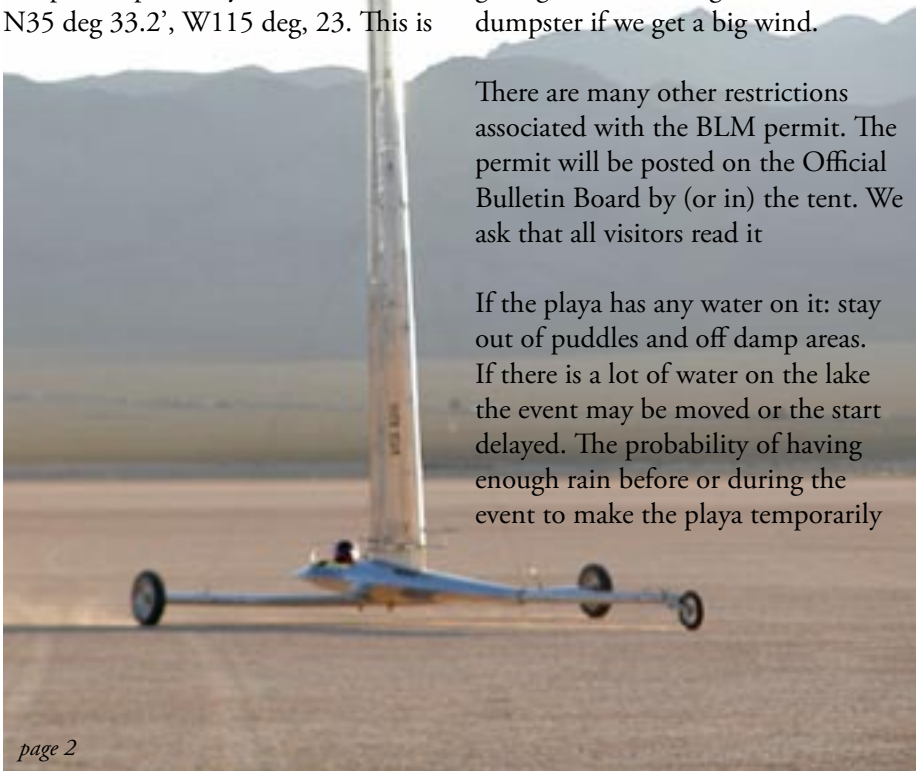
Getting to the site: Get off I-15 at Primm (about 40 miles southwest of Las Vegas, NV). Go NE toward the Primmadona, Turn right at the first light and drive along the edge of the resort (SW) past to the Lotto Store where the road turns SE. About 100 yards past the Lotto Store the road bends around to the left and there is a dirt road going through the fence on the right. The dip just past the fence can be a change for low clearance vehicles although we usually do not have trouble getting everyone on the playa.

Follow that dirt road about 2 miles along the east edge of the lake to camp. Camp is likely to be close to N35 deg 33.2', W115 deg, 23. This is a little north of our usual resting place. ***Notes:*** Do not take the dirt road that runs SE along the fence. There is often a wash just past the fence that may be difficult for some vehicles. Do not stray far from the road when on the lake. Generally we suggest driving next to, but not in the ruts that define the road to spread the erosion into a wider area that will heal more quickly.

Please use the portapotties or other appropriate facilities. Please pick up all trash (yours and others). Try to collect drill shavings (on a tarp?), bits of tape, wood, and other small debris as they are difficult to pick up once they are loose on the playa. We will have a dumpster and plenty of garbage bags on site. Please bag all garbage and Please tie the bags closed to prevent garbage from blowing out of the dumpster if we get a big wind.

There are many other restrictions associated with the BLM permit. The permit will be posted on the Official Bulletin Board by (or in) the tent. We ask that all visitors read it

If the playa has any water on it: stay out of puddles and off damp areas. If there is a lot of water on the lake the event may be moved or the start delayed. The probability of having enough rain before or during the event to make the playa temporarily



impassible is about 20%. The probability of being fully rained out is less than 10%. If rain threatens while we are on the playa, be prepared to leave the playa before it arrives. Once it starts raining the playa can become impassible very quickly (a few minutes in a hard rain). It is generally passable in a few hours but a heavy rain can flood the playa making it impassable for days or even weeks.

Fees: There is a link on the main page of the website to a printable Pre-Registration Form (also enclosed with this newsletter) that has fee and other information.

Schedule (tentative):

Saturday afternoon (2:00-4:00) and Sunday Morning: Registration (10:00-11:00)
Sunday at Noon: Opening Pilots Meeting
Sunday Afternoon: Racing
Sunday Evening: Opening Cookout
Monday-Friday: Pilot's Meeting: 9:00
Wednesday Evening: Dinner on the Playa.
Awards: Friday Afternoon (or possibly Saturday)

Racing will commence after the pilot's meeting and will continue until the sun hits the mountains.

Racing Information (Racing will be run in a similar format to the past couple years):

Tentative starts (same as last year)

- Fed 5, 5 square, Classic
- Class III
- Class IV, Class V,
- Manta Twin, Single, Mini

Racing Rules: Same as last year.

All this information can be found on the events page of www.nalsa.org. It will be updated periodically.

Playaology #2

Salt and Dirt Playas

by Bob Dill

We logically think of dry lakes as especially dry places but their existence and nature has a great deal to do with water. In the Playaology #1 we discussed the Ice Age (Pleistocene) origin of the lakes and their dependence on periodic flooding to keep them flat and smooth. In this article we will talk about why some playas are good for sailing and some are soft, rough salty surfaces.

While there is not much water in the desert, a fair part of the 5 to 15 inches/year of water that does fall soaks into the ground as ground water. In addition, a few thousand years ago it was pretty wet out here. The dry lakes were often hundreds of feet deep 12,000 years ago with water table levels much higher than we find today. There is a large reservoir of this ancient and recent ground water under what we see as a desert. Las Vegas has been pumping water out of the ground for 50 years and, in spite of dramatic land subsistence, they have not run out yet.

Most of the valley soils are porous alluvial fills that have washed out of the mountains in periodic flash floods. The mountains themselves have faults that allow ground water to move through otherwise impervious rock, often showing up as springs, hot or otherwise. Ground water flow through alluvial sediments is the main water transport system in the Mohave Desert. In effect, there are underground rivers in the valleys, one of which flows under Jean to Roach to Ivanpah and off to the southwest.

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Club Roster

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http://www.trophyexpress.com/wwizards/index.htm

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

Ground water in desert areas contains soluble salts (sodium chloride, carbonate, and sulfate to name a couple of many compounds). These salts have a wide range of solubility's ranging from 30% for sodium chloride to 0.2% for gypsum (calcium sulfate) and considerably less for calcium carbonate. These salts are called "evaporites." The sodium carbonate (along with other salts) generally give them a bitter taste rather than what we think of as salty. Evaporite deposits are sometimes mined for commercially valuable compounds (gypsum for sheetrock, table salt, borax, soda ash, etc). The mining process ranges from open pit mines (large gypsum mines can be seen west of I-15 near Las Vegas and on the way to Red Rock) to brine extraction wells seen on some salt playas.

An interesting variation on evaporites is the tuffa towers and related formations that are found around many dry or drying terminal lakes. Pyramid, Winnemucca and Walker lakes are surrounded by Tuffa formations draped over the alluvial sediments. The Tuffa is calcium carbonate that precipitated out of the lakes as their water levels fell (in many cycles). They form towers that can be seen beside the road on the way to the Black Rock or in the north end of Pyramid Lake (one of which is responsible for it's name).

Underground rock ridges form ground water obstructions that, along with soil properties and flow volumes, dictate the ground water level in a valley. Playas are the lowest surface features of a valley. If the ground water is at or above the playa level the net water flow will be up through the playa surface (often more at the edges through the alluvium).

If the ground water flow is up through the playa surface, it evaporates and the salts are left behind forming a salty playa. Since the ground water is near the surface and since the salts are hydroscopic these surfaces tend to be wet and soft below a thin crust. The dry surface crust expands over time, resulting in a hummocky (rough) surface that collapses easily with soft, salty mud underneath. This expansion probably results from a similar phenomenon on ice in which the salt expands when hot and cracks when it cools. The cracks fill with more salt during the next wet-dry cycle so the salt buckles when it expands during

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the next heating cycle. The playas in the bottom of Death Valley are salty and illustrate a typical irregular evaporite crust surface.

The salt flats at Bonneville are an unusual playa that is really just a small piece of a much larger salty playa. It is most likely a recent salt lake that dried up. Halite (table salt) is the most soluble of the common dissolved salts so it will be concentrated in the last water of a lake. It was probably transported there during floods over the huge Great Salt Desert. Bonneville has a particularly thick halite (sodium chloride) crust making it hard enough to drive on. The rest of the Great Salt Desert is, for the most part, brown, muddy, soft and rough.

If the water table is well below the playa surface any soluble salts in the ground water will stay below the surface and any salts above the water table will be dissolved and carried away from the surface by rain water percolating down from the surface. The water table at Ivanpah is over 100 feet below the playa surface. When it floods, the only reason it holds water is that the clay content of the playa soil is relatively impervious when wet so the water takes it time to percolate down or evaporate.

Dirt playas may be very near salty ones. A good example is Silver Lake north of Baker California and Soda Lake just to the south. Silver Lake is an good sailing lake while Soda Lake is a big mud pit with a reputation for eating cars and bulldozers. Silver Lake is 'up stream' (in a ground water sense) from Soda Lake but more importantly, the groundwater level at Silver Lake is below its surface.

The edges of the Black Rock near the hot springs at Black Rock Point is muddy from the water brought up by the hot springs. White evaporate (salty crust) can be seen along the edges of many sailable playas is from salts washed in by ground or surface waters.

The origin of stones in the middle of the playa will the subject of the next Playaology article.

Future Scientists Landyacht Event

by Jon Haverstick

On a recent drizzly Saturday morning in February, my son and I had an opportunity to participate in the Future Scientists and Engineers of America's (FSEA) annual landyacht speed competition. This year's even drew about 80 kids -- from second graders through high schoolers (and even a few adults…who claimed they were only "helping" the kids). The objective of the competition is to build the fastest model, powered by a box fan over a 15 foot course. Each team is given kits with parts to construct the landyacht body, wheels, and mast, and aluminum foil is provided for the sails. The kids are encouraged to let their imagination be their guide with regard to design.

While the chassis is pretty much limited to a single configuration, sail size and design ranged from multimasted rigs reminiscent of the pirate ships of old, to futuristic conical "sails." The record speed over the 15-foot course was 4.96 seconds. Not bad for having no steering, and only the draft of a household fan blowing it from behind.

For the second year, the good folks at FSEA contacted me to see if I would be willing to bring my full-size Manta, my models, and anything else that would show the kids what landsailing is all about. Of course, I jumped at the chance! As with last year's event, the presence of the full-size boat, and the models (which are markedly different from the kits the kids have to work with), and video generated a lot of questions and interest. Hopefully, we'll be seeing some of these kids on the drylakes and at IRCSSA events in the future!

NALSA 2004 Americas Cup

Pre-Registration Form

_____ _____
Name email

_____
Street

_____ _____
City State, Country, Zip

_____ _____
Club Affiliation National Federation

_____ _____ _____ _____
Age Phone Shirt Size (s, m, l, xl, xxl)
(note we have not figured out what we will have for swag (give-aways) this year so it may not be a shirt (T or otherwise)

Yacht Entries

.
Pre-registration Fee: $60 + $20 for each additional class. ($80 + $20 for each additional class onsite registration)

Class	$	Sail Number	Type or Manufacturer
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Make checks payable to NALSA. Send them to the NALSA Treasurer:
Mark Harris, 2027 Valencia Way, Sparks NV, 89434
All pre-registrations should be received by Mark Harris on or before March 13, 2004.

Note: Your registration fee breaks down roughly into: Tent $15, Meals $15, Swag: $10, Sanitation: $11, BLM Fees: $12 Insurance: $8, Assorted Other: $14. NALSA is picking up about $10 of the cost from funds on hand.

Release and Certification

In consideration for my participation in the Americas Land Sailing Cup Regatta, I hereby release and hold harmless the North American Land Sailing Association (NALSA), its officers and agents from any and all liability for any damage or injury to my person or property sustained in such regatta, whether such damage or injury be due to negligence of said association, its officers or any other cause. It is the sole and exclusive responsibility of each skipper to decide whether or not to start or continue a race.

Pilots Signature _____ Date _____

Parent or Guardian Signature_____ Date_____
(required if Pilot under 19)

2050 W. Martha Lane • Santa Ana, CA 92706

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PRE-REGISTRATION FORM ENCLOSED!