

WASHINGTON AEROSPACE

INSIDE THIS ISSUE:

<i>Monroe Flight Report</i>	2
<i>Binder Design Avionics Bay</i>	2
<i>Aerotech Fire</i>	3
<i>Giant Leap Slimline Tail Cones</i>	3
<i>EMRR 2002 Calendar</i>	3
<i>"Rockets of the World"</i>	3
<i>Aeropac 13—Black Rock, Nevada</i>	4
<i>Launch Schedule</i>	8

Washington Aerospace Officers

- President—Kent Newman
- Treasurer—Christopher Scott
- Secretary—Traci Scott
- Operations Manager—
Andy Casillas

For Club Information:

Kent Newman - ohiochase@aol.com or 360 893-1148

Christopher Scott—
ChristopherJ@centurytel.net or
253 858-7256

FROM THE PRESIDENT.....

BY KENT NEWMAN

The wind is picking up, the air is cooler, the drizzle is starting to appear and the 2001 flying season is winding down. Most Northwest flying sites have seen the last of scheduled launches with only a few areas sponsoring events through the end of the year.

After this very active past year, there will be a few changes in launch activities for the coming year.

Sheridan, OR

The Sheridan, OR, site hosted by the Oregon Rocketry Association (OREO) in April and September will not be able to continue its 5,000' waiver. The field is still available but is now restricted to F.A.R. 101 flying (i.e., rockets weighing less than 3.3 lbs and using propellant weighing 125 grams or less). One heckuva lot of fun can be had flying rockets under the constraints of F.A.R. 101 but it will not be the high power site with a 5,000' waiver that it was in recent years.

Monroe, WA

The Crescent Lake launch site originally discovered by Bill Manness and Steve Thatcher in the early 90's is located on land owned by the Washington State Department of Corrections (DOC) Reformatory Farm. During the course of budget reviews in 2001, the DOC decided to transfer the dairy cow operation to other farms around the state. The future use of the Monroe farmland has not yet been entirely decided. From a town hall meeting held in Monroe in early September and from suggested proposals submitted by the DOC Program Administration Office in Olympia, it appears that the land will have two uses. One use will be to cultivate native Washington plant life for study and possible transplantation. The other use will be to continue to use part of the field to grow feed grasses for cattle and dairy animals. Neighboring farmers will be allowed to

grow and harvest the grasses periodically. In both cases, the land would remain under the management of the Department of Corrections.

After talking with the Program Administrator in Olympia, the Monroe Staff has been assured that we can continue to use the land for our monthly rocket launches. That's extremely good news!

However, the fragility of launch site availability does raise some issues. What do we do as contingency if we lose access to our only high power site in the Puget Sound area? Should we be on a constant look-out for new or better sites?

It would certainly seem prudent to always be looking for a new site. Keep your eyes open as you travel through the Puget Sound area (and Central Washington) for any potential launch area. Keep your ears open during conversations for any information about landowners, farmers, and ranchers that might have land suitable for hobby rocketry use. The Monroe Staff can always follow up on the least likely opportunity. One never knows!

Washington High Power (WHIP— NAR #633)

The newly chartered NAR Section #633 in Touchet, WA, will be hosting a series of two-day launch events in 2002. Be sure to include Touchet in your summer rocket launch travel plans and participate in these launches in Southeastern Washington. The site currently has a 5000' waiver but Scott is working on increasing that waiver for the year 2002.

Club Elections

December is election month for Washington Aerospace. Please be thinking of candidates for President, Secretary and Operations Manager. We will also discuss the direction of the club for 2002.

MONROE SPACE PORT

BY DAVE DAVIS

Even with the inclement weather, a launch was held at Monroe on the first Sunday of October. We had close to 100 flights and the low cloud ceiling kept the monthly swamp feeding to a minimum. This was especially important since hunting season was on!

I would like to thank Steve Bloom and Bruce Johnson for pulling multiple shifts as LCO. Pat Floyd had his hands full mentoring people's electronic deployment systems. We did not have a single electrical dual deployment failure all day. Abby Chang and Mike Pearson ran Registration and kept order as people checked in. Well done.

There were a bunch of folks who helped set up and take down the range and without them, Monroe would be a lot more difficult. Thanks to you all.

If I missed anyone who helped make this launch happen, thump me accordingly.

Rich Harnon wins the "Flight of the Day" award with his awesome I310 Hypertech Hybrid, dual deployment Level 1 certification flight. Well done, Rich! This one was the best hybrid flight Monroe's seen in a long time.

Jon Warren provided this month's entertainment with his flying "Lamp Post" scratch built. It is designed to fly low and slow, which it did on its first flight attempt on an I154. It moved so low and so slow, it never reached the altimeter minimum altitude. It landed nose first into the soft Monroe soil. From a distance, it looking like someone had left a floor lamp out in the field. It was extracted from the field, cleaned up and was returned to flight using an I284 which reached a screaming altitude of 354 feet. Next flight up, a K185!

Here are the flight totals:

1/2A	1
A	7
B	12
C	24
D	14
E	9
F	9
G	9
H	3
I	4
J	1
Total	93

We had several Level 1 certification attempts:

Jon Warren's "Lamp Post" First flight I195 unsuccessful. Second flight I284 successful.

Rich Harnon "Tuzy" I310 Hypertech Hybrid. Extremely Successful.

John Hawkins "BSD Horizon" H123. Successful.

Paul Gablehouse "BSD Horizon" H128. Nosecone separation. Failed certification and was assimilated by the swamp.

Jim Nietmann "PML Sudden Rush" H123. Successful.

Well done to our new Level 1'ers. The weather conditions were not exactly perfect. However, you all stuck to it. Welcome to High Power!

There is long standing policy at the Monroe site where all vehicles of "G" impulse or larger require Range Safety Officer (RSO) inspection prior to flight. We have roving RSO's at Monroe and at Check-in/Registration. Please be sure that your rocket is inspected to keep Monroe a safe place to fly rockets.

See everyone in November!

Dave Davis
For the Monroe Staff

"We had close to 100 flights and the low cloud ceiling kept the monthly swamp feeding to a minimum."

Binder Design Avionics Bay Kit

(ROL Newswire) Binder Design is proud to release a new Avionics Bay Kit for their 3.9" airframe! Features include 12" of interior space for mounting of altimeters, timers, transmitters. Stepped plywood end caps to minimize the chance of ejection charge gas reaching your electronics. Includes a 4" long section of 3.9" airframe tubing that provides a perfect place to mount a key-switch and drill vent holes. Perfect for dual deployment! Comes with complete

hardware and instruction package and includes decals for VENT as well as ON, OFF decals for key-switch positions. Even comes with the key-switch! Visit Binder Design's site at binderdesign.com for full details. Be sure to check out their new "REMOVE BEFORE FLIGHT" ribbons. The perfect accessory for your key-switch that ensures that your altimeter is armed before flight.

AEROTECH FIRE

(ROL Newswire) -- AeroTech is pleased to announce that they will be in attendance at next week's ROCstock launch. They will be sponsoring a limited number of Level 1 certification at with the H128 White Lightning™ motor (medium delay). Those interested can register for their motor at the AeroTech booth.

With regards to resumption of motor production, AeroTech is anticipating release of more specific information at the upcoming Turkey Shoot rocket launch near Las Vegas, NV, which is scheduled for November 23 -25.

AeroTech would like to notify all of it's customers that all the old phone numbers are inoperative and the following contact information can be used at this time:

Address:
AeroTech, Inc.
3100 E. Charleston Ave.
Las Vegas, NV 89104

Phone: 702-641-5988

Rockets of the World, Third Edition by Peter Alway

During the course of prepping for a flight at Monroe, I was chatting with a neighboring flier parked next to me. As we assembled motors and talked about the flights going over our heads, the subject of finding scale data came up. My neighbor was a bit frustrated in trying to find a discontinued Estes Pro Series kit to be used to help scale a high power version of the rocket. His dilemma was real. Not only are discontinued Estes kits sometimes difficult to find, they can be pretty pricey if purchased at auctions or from collectors.

The rocket was a Terrier-Sandhawk, i.e. a real rocket. I asked him if he had looked at Rockets of the World to find the dimensions. He wasn't aware of the book.

Ladies and gentlemen! If you haven't already scored a copy of Peter Always's Rockets of the World, run, don't walk, to your spouse, significant other, parents, whomever, and ask them to put the book way up on their Christmas list for you. The book is an essential resource for modelers and those wishing an historical reference to the rockets of the world. Peter provides drawings of each rocket with scale data and markings. The book has 384 pages detailing over 200 versions of 138 rockets from 14 countries. Brief histories, dimensioned drawings and photographs augment each rocket. It's a keeper!

The book sells for \$35.00 and can be purchased through Saturn Press, Apogee, Discount Rockets and Amazon.com.

"an essential resource for modelers and those wishing an historical reference to the rockets of the world"

Giant Leap Slimline Tailcone

(ROL Newswire) Giant Leap is pleased to announce the Slimline Tailcone Retainer. It retains the motor in place, just like the basic Slimline retainer, but it's a tailcone! Slimline Tailcone Retainers give you a sleek, low drag design. It's precisely machined from 6061-T6 aluminum. As with all Slimline Retainers, your motor is inserted onto the motortube and then

secured with a circle ring. The inside of the tailcone is grooved to permit a secure attachment to the motortube. The backside of the tailcone is hollowed out to drastically reduce weight. The Slimline Tailcone Retainer finishes the rocket and retains the motor too!

Order yours today at www.giantleaprocketry.com

EMRR 2002 Calendar

(ROL Newswire) -- EMRR has assembled a "better-than-ever" rocketry related calendar for the 2002 flying season. Ten fellow rocketeers have helped to pick out the pictures that are going to be printed. EMRR is now taking orders (special pricing in place until 11/18/01). You can also visit EMRR's 2001 Calendar to enjoy the photos that were in last year's edition. Calendars are \$20 each (including shipping).

For Canada, add \$1 shipping. Discounts are available if purchasing multiple calendars. After 11/18/01 prices will rise to \$22.50 each (discounts for multiple purchases). All profits will go to the NAR / TRA Legal Fund.

Details regarding this promotion may be found under our ATTRACTIONS and CONTESTS tab at www.rocketreviews.com.

AEROPAC 13 – BLACK ROCK, NV

BY KENT NEWMAN

The Aeropac 13 launch was a highly anticipated event in the Northwest that almost didn't happen. The September 11th terrorist attack on New York and Washington, D.C. put all aviation recreational activities on hold immediately following the attack and for some time after. It wasn't until the Monday before the scheduled launch that the FAA resumed granting waivers for high power rocketry. And it was that same Monday that my family and I began to scramble to prepare to head for Nevada.

Leaving Puyallup on Thursday at 5:30 a.m. helped us beat most of the traffic through Portland. And, fortunately, the majority of summer road repair and construction had already come to an end. We traveled smoothly over the Oregon Cascades at a time to see the beginning of fall colors. It was a very pleasurable drive (I usually cross the mountains in the dark).

Leaving the California border behind (and not even being stopped for a produce inspection!), we traveled about 30 miles into Nevada when, lo and behold, Andy Casillas' van appeared in the side mirror of our motorhome. Andy was kind enough to follow us to the outskirts of Gerlach. As several of you already know, the road leading to Gerlach is neither one of the Nevada's more well-traveled nor well-maintained state highways.

We stopped briefly at the fork in the road where NV-447 and County Rd. 34 split, exchanged greetings, and since it was about 6:00 in the evening, decided to continue on out to the launch site to set up camp before dark.

The route off of the road onto the lakebed was well-marked. And we could see the tell-tale orange traffic cones stretching off into the distance that would lead us to the Aeropac launch site some 15 miles or so away. The lake bed was covered in a much thicker layer of dust than we had seen in the past. Getting up to a cruising speed of 65 mph or so, the motorhome hit an even thicker layer of the dust and began to fishtail like one would hitting 4 or 5 inches of freshly fallen snow. In fact, after slowing down a bit to determine what was happening, I had trouble speeding up again because the RV's tires began to spin! What an experience! A more prudent acceleration got us up to speed, however, and we eventually saw the car line in the distance.



The flightline at the October 5th—7th Aeropac 13 launch at Black Rock, NV.

It was cooling off very fast as the sun began to set on the horizon. We found Tom and Ellen Gonser's camper and Win Maynard's motorhome and picked a spot near them. This would become the Washington-Oregon camping area.

Before setting up the RV, however, Tom, Andy, Win and I ran the disassembled pieces of "Jumbo" out to the "far away" cell. "Jumbo" is a custom pad that was built primarily by Andy Casillas, Tim and Jessica Larson as members of the "Community Space Program". The rest of us in the group supported the construction in any way that we could. The original need for the pad was initiated by Kimberly Harms' C-7, an 18.5' tall, 11.5" diameter 170 lb rocket. Since then, everyone in the group has found a need for it. The 20' pad takes 15 minutes to assemble and disassemble and is very simple to use.

During this trip, a number of us had a number of projects that would have a need for Jumbo early the next day. So, per our usual *motis operandi*, we set out to have the morning sequence of launches go as smoothly as possible by having the pad ready to go. We always want to control everything that we can that will ensure a series of successful launches. In that way, we would only be dependent upon the unpredictable winds of the Black Rock desert.

Friday

Friday was "experimental day". This is a day where non-certified homemade motors may be flown at what is called a "Tripoli Research Launch." The launch is insured with certain requirements that fliers and attendees must meet.

The first launch of the day was by a young man that Andy Casillas and I met last year at BALLS. James is just 19 years old and into rockets in a big way. The EX day at Aeropac was James' first opportunity to fly a big motor that he made. The

" We traveled smoothly over the Oregon Cascades at the right time to see the beginning of fall colors. "

AEROPAC 13—CONT.

54mm highly aluminized motor *"ripped"* his rocket off the pad into a clear blue sky. It was a neck-breaker but James had a successful recovery.

Next was Tom Gonser and "N-tropy" on an N3000. This 4" motor put out a flame as long as the rocket and flew to 23,000'. This rocket was unique because it was carrying a video set-up that transmits on 70 mhz. Although there were some problems with the video, the recovery was successful.

I put Composite Trauma, a 4" filament wound rocket, on "Jumbo" with my first amateur "M" motor. The motor was a 5450ns (baby "M") in a 75 mm casing. CT took off like a scalded cat into what was becoming a sky slightly obscured by increasing cirrus clouds. EX motors typically do not have tracking smoke so Composite Trauma disappeared against the wispy clouds.

After searching the skies for a bit, Andy and I decided to go help Tom and Ellen recover their rocket. One nice thing about Black Rock is that it's so darn big and flat, sooner or later, an orphaned rocket will stand out against the perfectly flat dry lake bed. We'd find CT later. And, as it turned out, as we helped Ellen and Tom gather up N-tropy, they pointed out where CT had landed not too far away. Composite Trauma came in only under the drogue but didn't suffer any damage (more black powder!). And I set a personal altitude record of 15, 940'!

Chuck Layton put a 38 mm Blue "J" into his Apache and popped it hard and fast into the Nevada sky. The blue burn was really quick with very little smoke and the recovery was successful.

I flew my "Fire in the Sky" on a 54 mm DPS 11% aluminum motor that flew very well but scorched the motor casing. That always hurts but at least it wasn't a cato. It looks like a Kosdon 54/1400 motor casing will be on my Christmas list this year!

Andy Casillas flew his "Stukertz" (my spelling!), a 4" blue devil on a 75mm 1% aluminum motor. His boost was excellent heading up against the cirrus clouds until the drogue could be seen deploying. The two-stage recovery was perfect!

The most anticipated project for the crowd was the Gates Brothers Pothos II. This 500 lb., 20' tall rocket was to fly on 7 "N" motors. Six of the "Ns" were new non-certified (as yet) 98 mm N4800 Blue Thunder motors from Aerotech. These motors were a bit different from the normal Aerotech reloadables; they had to be reloaded at the factory and are quite expensive. The seventh motor was an AT N2000 White

Lightning. Actually, the seventh motor was to be a 5" motor but there were too many problems in getting it to burn properly. The N2000 was substituted. All of these 98 mm motors were efficiently loaded into a beautifully finished rocket 18" in diameter at the base, 12 1/2" throughout the body and twenty feet tall.

The Gates Brothers were going to launch the rocket on three of the "Ns", start another three motors three seconds into the flight and then light the center N2000 twelve seconds into the flight as "tracking smoke" for the end of the boosted flight.

The igniters "spit" a bit, the motors came up to pressure fairly slowly for Blue Thunder propellant and Pothos II lifted off of the pad. The rocket took a quirky "bend" at the top of the Gates Brothers launch tower and angled off over the crowd. The airstarts for the second set of motors could have lit sooner as the rocket now angled even more toward Gerlach. Pothos II picked up speed and disappeared into the clouds. The rocket deployed its 20' Rocketman drogue at a high rate of speed partially shredding it. The rocket fell fast to main deployment altitude where the main fired. The high speed under the shredded drogue deployment and the heavy weight of the rocket caused the shock



Tom Gonser's "N-tropy", a 5" G-12 rocket streaks skyward on a Paul Robinson N3000. The 16,000 ns motor put "N-tropy" up to 23,000' in the clear Nevada skies.

"The 54mm highly aluminized motor 'ripped' his rocket off the pad into clear blue sky. It was a 'neck-breaker' but the recovery was successful."

AEROPAC 13—CONT.

heavy weight of the rocket caused the shock cord to break dropping the fin can to the lake bed. It wasn't pretty! The Gates boys pretty much took it in stride and resolved to fly again.

Saturday

One of the really nice experiences about the Black Rock lakebed is getting up early and enjoying the beautiful sunrise! I stepped out of the motorhome about 6:15 a.m. to start the morning only to see Kimberly Harms and others of our troupe already at work prepping C-8. C-8 is a 14.5' rocket, 9.25" inch diameter rocket that weighs about 117 lbs ready to fly.

With a shortened countdown, C-8 took to the skies on an M2500 and 4 K700s. The boost was beautiful and the airstarts set at 3 seconds into the flight appeared to hit right on time. But after recovering the rocket, Kimberly learned that only two of the K700s ignited.

Immediately after getting C-8 up, Win Maynard and the Community Space Program readied "Revenge of Superman" for its flight off of Jumbo. "Revenge" is an expansion of Win's L3 project from last year. It's a 4" Dynacom airframe expanded to two stages designed to fly an M1315 to an L1120. The boost was spectacular and the staging was timed perfectly to fire at booster burnout with "Revenge" hitting just under 25,000'! The rocket was recovered on a 12' streamer that we could hear long before we could see it! The main fired on time and the second stage landed safely. The booster experienced some damage when the parachute suffered from a partial deployment of its chute.

Andrew MacMillen was next into the sky with a Rattworks K240 hybrid in a BSD Thor to a personal best altitude of 6354'. Andrew is specializing on hybrids and is getting to be pretty successful with his flights.

The Gates Brothers then decided to have another try



Win Maynard hosted a get-together for the NW/Aeropac crew and demonstrated his 2-cycle gas-powered "Margarita blender". A crowd-pleaser, for sure, Win kept us in business throughout the evening.



Kent Newman with the "Doorknob" on a KBA K600 to a K185 to (2) H128s. The flight was successful to 7145' and had a nominal recovery.

at the sky with their Aramis III rocket. This rocket flew on two M2000s and two M1939s and was recovered successfully.

John Lyngdal flew a long-burning K185 through the clear blue sky. Long burning motors are pretty impressive! I launched my PML Quantum Leap on an I300/I161 combination to 4478'.

Kimberly flew C-8 one more time on an N2000 and the two K700s that didn't ignite on the first flight. The boost was perfect once again but the two K700s didn't fire as planned this time, either. Instead, the two big 54 mm motors fired right at deployment of the main parachute. There is something to be said about C-8's construction, however, as the rocket held together without any damage.

An "M" altitude flight was next attempted using an M1315/K250 combination in a small diameter two-stage rocket to reach just under 39,000' beating the old record by over 10,000'! That K250 is a pretty spectacular motor!

I ended my day flying the "Doorknob", a 5.5" two stage rocket on a K600/K185/(2)H128 combination. The boost was great in the still air of the late afternoon (something unusual at Black Rock), but the rocket angled just a bit under the K185 thrust and the trajectory pointed just a bit toward the South. The flight path wasn't bad; it just robbed the rocket of

"One of the really nice experiences about the Black Rock lakebed is getting up early and enjoying the beautiful sunrise!"

AEROPAC 13—CONT.

some altitude. The airstarts fired as planned; the booster and sustainer were recovered without damage and the “Doorknob” registered 7145’ in altitude.

A great way to end the day!

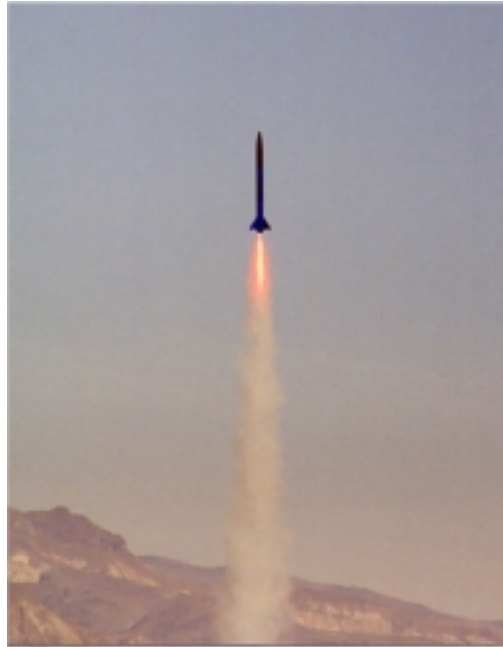
Saturday Evening

As the waiver ended, fliers retreated to their camps to clean motor casings, stow rockets and supplies and prepare for a feast to be held outside of Win Maynard’s motorhome. The original intent had been to host a celebration party for the Northwest and Aeropac fliers involved in a velocity contest at Aeropac 13. However, September 11th put a crimp on many people’s plans to finish projects that might grab the title of “fastest flight at Black Rock”. Although there were some attempts at the velocity record, very few had actual recorded or recovered rockets to prove flight speeds. In fact, Win had the only flight with good data and won the event as it was. In the spirit of rocket fellowship, the party was held for all!

But flying activities weren’t over yet! Aeropac had night flights planned for Saturday night and a number of fliers took advantage of the opportunity. The sky was clear and full of stars and probably 25 or 30 flights were made with cyalume sticks, high power strobes and neon lights attached to various and sundry rockets. The evening was nothing if not entertaining.



Kimberly Harms’ C-8 has a spectacular lift-off on an N2000 and 2 K700s. The K700s fired late at the time of main parachute deployment but C-8 was recovered safely.



John Lyngdal flies over 6000’ on an Aerotech K695 Redline.

Sunday

Another clear and still day greeted early fliers on Sunday. Christopher Scott put up his 6-inch “Gamma-75” on an L1120 for a perfect flight and recovery. Andy Casillas flew “Stukertz” again but this time on a J415 for a really nice flight. John Lyngdal flew his “House of Kolor” blue rocket on a K695R to 6000+’. The Redlines are eye-catchers!

About 11:30, flying conditions changed dramatically as the wind began to pick up. Flags were whipping, canopies were buffeted and the remaining tents were starting to move on their own. People began to scramble to tear down campsites while still getting in that “very last flight”.

Kimberly Harms put up a rocket on a cluster of 3 J570s. Now, let me tell you, this is truly a “kick in the rocket!” In a blink of an eye, the rocket was out of site and people were searching for a smoke trail. The smoke trail was found, but, unfortunately, the very rigorous boost likely separated batteries from their holders and, without connected electronics, Kimberly’s rocket came in ballistically. The best that one could do was to pick up the resulting shrapnel and to start planning the next project.

The event was a success! I flew to a personal best altitude; I launched a lot of rockets; I was able to see even more; and I was able to renew old friendships and make some new ones.

Put Aeropac 14 down on your calendar for next year! You won’t regret it!

“Flags were whipping, canopies were buffeted and the remaining tents were starting to move on their own.”

Club Meetings

The first Saturday of every month!

Where: Peace Lutheran Church
214 East Pioneer
Puyallup, WA 98372

Time: 7:00 p.m.

We're on the Web!
www.hawkfeather.com/wa-aero/

**NAR Section 578
Super
Discounts**

All club members get the following discounts at the All Hobbies store

20%

Special Discount on single item purchases of over \$300.

15%

Estes
Dr. Rocket Motors
& Parts

10%

On all of the following:

- LOC(except as noted)
- AEROTECH KITS
- IMPULSE AEROSPACE
- DR. ROCKET
- AEROTECH MOTORS
- AEROTECH RMS
- CUSTOM
- QUEST
- TOP FLIGHT
- PARACHUTES
- PUBLIC MISSILES, LTD.
- THE LAUNCH PAD

NO DISCOUNT

All Red Sticker Items

ALL HOBBIES STORE
1430 E. Main
Puyallup, WA 98372
253-841-0089

<http://allhobbies.net/>

Regional Launch Schedule

Notes:

1. Monroe winter launches are weather permitting (as if the rest of the year isn't!)
2. BEMRC launches (Boeing) are model rocket only. C impulse maximum.
3. No EX motors or allowed at certified launches; Kosdon motors not allowed at Monroe.
4. No certified motors allowed on EX Only launches except when flown with an EX motor.

August 4th (Saturday) Puyallup, WA (WA Aerospace Meeting)
 August 5th (Sunday) Monroe, WA (TRAPS-WAC)
 August 11th (Saturday) Dayton, WA BMR
 August 11th (Saturday) Kent, WA (BEMRC)
 August 12th (Sunday) Spokane, WA (S.P.A.R.C.)
 August 18th (Saturday) Offutt Lake, WA (Washington Aero)
 August 24-26th (Fri_Sun) Brothers, OR (OREO—EX Launch)
 August 24-26th (Fri_Sun) Black Rock NV (Aeronaut 2001)
 August 25th (Saturday) Redmond, WA (SEANAR) 60 Acres Park

September 1st (Saturday) Puyallup, WA (WA Aerospace Meeting)
 September 2nd (Sunday) Monroe, WA (TRAPS-WAC)
 September 8th (Saturday) Dayton, WA BMR (Rolling Thunder)
 September 9th (Sunday) Spokane, WA (SPARC)
 September 14th-16th Bonneville, UT UROC Hellfire 7
 September 15th, (Saturday) Offutt Lake, WA (Washington Aero)
 September 15-16th (Sat-Sun) Sheridan, OR (OREO) Mon EX Day
 September 22nd (Saturday) Redmond, WA (SEANAR)60 Acres Park
 September 29th-30th (Sat-Sun) Black Rock NV BALLS 11

October 6th (Saturday) Puyallup, WA (WA Aerospace Meeting)
 October 5th-7th (Fri-Sun) Black Rock, NV Aeropac XIII
 October 7th (Sunday) Monroe, WA (TRAPS-WAC)
 October 13th (Saturday) Dayton, WA BMR (Rocktoberfest)
 October 14th (Sunday) Spokane, WA (SPARC)
 October 20th (Saturday) Offutt Lake, WA (Washington Aero)
 October 20th-22nd (Sat—Mon) Brothers, OR (OREO)

November 3rd (Saturday) Puyallup, WA (WA Aerospace Meeting)
 November 4th (Sunday) Monroe, WA (TRAPS-WAC)
 November 16th-17th (Sat-Sun) Touchet, WA (WHIP)

December 1st (Saturday) Puyallup, WA (WA Aerospace Meeting)
 December 2nd (Sunday) Monroe, WA (TRAPS-WAC)

Launch Contacts:

Washington Aerospace	Kent Newman	360-893-1148
Tripoli Puget Sound	Bruce Johnson	425-228-7292
Monroe Launches	Christopher Scott	253-858-7256
Wahington High Power (WHIP)	Scott Binder	
Blue Mountain Rocketeers	Tim Quigg	509-382-4176
B.E.M.R.C.	Lauren Anstead	206-655-3238
Seattle NAR (SEANAR)	Don Qualls	206-784-1667
Spokane Area Rocket Club (SPARC)	Bret Conant	509-299-7122
Tripoli – Oregon	Gary Fillible	503-843-3137
Tripoli – Portland	Dennis Winningstad	503-297-3685