

# WASHINGTON AEROSPACE

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- President—Kent Newman
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## FROM THE PRESIDENT.....

BY KENT NEWMAN

September 11th, 2001, will be a memory not soon forgot. The ramifications of the events of that day could certainly alter the normal course of life in America. Let us all hope that the terrorists do not win, however. That our way of life is not changed but, instead, that our resolve to treat terrorism for what it is will be strengthened. Let us commit to living life in America as free Americans and let us be just as committed to finding, stalking and eliminating terrorism wherever it may be and whenever it threatens America. And I truly believe that we will do just that.

### Monroe

The Washington State Dept. of Corrections has vacated the prison dairy farm to the North of the Crescent Lake flying field. Preliminary informa-

tion indicates that the field is actually the property of the Dept. of Natural Resources. With the change of management, the Monroe Staff will work toward securing permission to continue to use the field for Puget Sound rocketry. As a contingency, however, if you are aware of a field that might be applicable for our needs, please let me know. Ideally, a field would be a mile square (or more), clear of trees, utility lines and, of course, the dreaded swamp. If you see such a field, the Monroe Staff would be happy to make the contacts with the owner.

### Format Change

Black and white photos are being used in this issue. A certain number of newsletter copies are printed for distribution each month and the B&W images provide a much better copied image. If you print from our website, the color images may be better. Please let me know your preference.



Flying rockets at the Monroe Spaceport during simpler times. Those times will be back again. Photo by Newman

# MONROE SPACE PORT

BY **KIMBERLY HARMS**

It was a very good day of flying at the monthly High Power launch in Monroe Washington on Sunday, September 2nd. While the humidity was high, the winds were not. The skies were clear most of the day.

The flight breakdown:

1/4A	1	F	12
1/2A	3	G	11
A	15	H	24
B	18	I	9
C	36	J	4
D	31	K	2
E	6		

Total: 172 flights

We had more certification attempts on this day than any other day this year. I was able to collect some info from some of the flyers and I've included what they sent.

Our two new Level 2 certified flyers are:

**1 Andrew MacMillen**, BSD Thor, J420  
Stretched & glassed BSD Thor, 4" x 7'11", 8.25#, Missileworks RRC electronics & dual deployment, apogee at 2144'.

**2 Nigel Malden**, BullDog+ J570

The eight new level 1 flyers are:

**1 Bill Kelly**, BSD Intrepid, H180

**2 Greg Wilson**, BSD 38 Special, H128

**3 David Woodard**, PML IO, H128

**4 Ben Bickley**, PML Small Endeavor, H123

Ben is a student at Cal Poly in San Luis Obispo and a member of the Cal Poly Space Systems club.

**5 Robert Geer**, Barbie One, H268

Robert writes: "I'd like to thank the staff and volunteers at the Monroe Spaceport for putting on the launch every month and making the launch possible, Abigail Chang for doing the certification and all the great people that advised and encouraged me to go for it. And our good friend Ursula of All Hobbies for being there every month with everything I needed to build and fly Barbie. Special thanks to "The Rocket Girls" Amber and Harmony for giving me the idea and picking the colors For "Barbie I".

**6 Eric Gunnerson**, Spot, H128

Spot is an enhanced LOC IV.

**7 Mike Anderson**, Vaughn Brothers Javelin, H97

Mike writes: "The flight was successful. The biggest lesson I learned was to include a beeper with my future flights (especially when they go up to 2500 feet or more) so I can find the rockets in the grass. Without help from other people I would not have found my bird."

**8 Rick Lundgren**, PML Callisto, H128

Rick writes: "Thank you for your inquiry. Yes, my flight was successful. I did, however, end up

*"We had more certification attempts on this day than any other day this year."*



## MONROE SPACE PORT (CONT.)

looking for my bird for close to an hour and when I found her she was resting quietly in the grass about a qtr. mile from the pad. I returned to Dave Davis for the cert paper work which he filled out and gave to me to send to NAR for my cert and membership card. I joined NAR and cert'd L1 on Sunday. I got to hit the launch button to light her up and the flight was beautiful. Dave suggested to add about 5 deg of angle, which I did and walked for later. Between the time I loaded on the rack and the time I launched the wind, doing it's little variable thing, died down leaving me with no home bound winds for a close proximity recovery. Other than the walk It was great, and really the only problem with the walk was the 6' grass, yes, 6 foot tall grass, and Blackberry brambles I had to navigate until I found her."

Good job guys!

We had a good turn out for volunteer help. Working as LCO were Mike Pearson, Eric Shankland, Mike Anderson, John Smith, and Dave Woodard. Working hard at the Pad Manager position were Abigail Chang, Matt Beland, Andrew MacMillen, and Jim Pommert. There was also some very good turnout for setup and take down. Thanks guys! It really is appreciated.

The next launch on October 7th will be a bit different. A lot of the staff will be off on their annual Black Rock trip. While the launch will go on with the very capable hands of Dave Davis and Bruce Johnson, staffers Christopher and Traci Scott, Steve Bloom, Kimberly Harms, Pat Floyd, and Kent Newman will be gone. This is going to require that a lot of folks volunteer for lots of jobs. I'll be sending

out more email on this later in the month.

**Here is the report from the Washington Aerospace contest director, Jim Pommert:**

The Labor Day weekend launch included the third NAR sanctioned contest of the year hosted by Washington Aerospace. Participation was light with only a few contest flights logged during the day. With a light breeze in the morning toward the swamp and in the afternoon toward the flower fields conditions were less than ideal for C-engine eggloft duration. A few fliers put up birds with mixed success. Two younger fliers, Kate Lehman and Daniel Scott, each suffered recovery failures that scrambled their little 'eggstronauts'. In the adult division, Abigail Chang and Mike Pearson, met with better success. Abigail put up the first successful flight of the day with a good time of 47 seconds that took first place. Mike Pearson could have used a shorter delay but still turned in a 16 second flight for second. In Open Spot Landing only one flier managed to land within the 50 meter maximum distance, junior member Christie Schmidt. Christie, who also won the August Drag Race contest with the same rocket, showed she knows how to compete with a nice 27 meter winning flight. No adult member managed to land within the 50 meter circle. With no entries in the Oddroc competition those few flights were the extent of the contest for September. During the competition it was announced that the NAR sanctioned contest that had been scheduled for October 7th was postponed until November 4th. Events will be A-engine Steamer Duration, C-engine Rocket Glider Duration and an unsanctioned Fantasy/Future Rocket event.

Kimberly Harms  
for the Monroe Staff

*"The Labor Day weekend launch included the third NAR sanctioned contest of the year hosted by Washington Aerospace".*

## Shear Pins Again

In last month's newsletter, it was suggested that brass sheeting be used to provide a more durable surface and cutting edge for styrene or nylon shear pins. The brass is used to avoid the inevitable point where the shear pin holes in plain plastic nosecones and paper couplers begin to deform after repeated use. Metal stands up very well to shear pin use and provides a nice clean cut on the shear pin itself.

Since then, I've received a number of questions as to what is used and where can it be

found. I've been using K&S Quality Sheet Metal, #250 Brass, in .005"X4"X10" sheets. All Hobbies carries it and the price is about \$1.50 or so, if I recall correctly.

I have used thicker brass but the thicker material only creates a greater challenge in cutting and forming the piece to be epoxied to a nosecone shoulder or coupler. And, obviously, the thicker material presents a greater difficulty in sliding easily into the body tube.

Use the thinner stuff. It works great and lasts forever!

## LEGAL STORAGE—PART 2

BY KENT NEWMAN

In last month's newsletter, instructions for obtaining reference materials and the appropriate application forms for a Low Explosives Users Permit, a Washington State Labor & Industries permit and residential storage were discussed. By now, those materials should either be in your hands or should be well on the way.

Be sure to spend a good deal of time becoming familiar with the ATF's "Orange Book" and the L&I's "Red Book". The more prepared you are for an eventual visit from each AHJ (authority having jurisdiction), the more comfortable you will be and the more likely the visit will be successful.

There are several other recommended reference locations to visit as well.

[www.rocketryonline.com](http://www.rocketryonline.com)

An excellent article by Darrell Mobley speaks to the history of ATF regulation within our hobby and describes the current status. Go to ROL, click on "INFOCentral" and then, click on "Regulation".

[www.tripoli.org](http://www.tripoli.org)

Sample ATF LEUP application forms with comments can be found at this site.

[www.NAR.org](http://www.NAR.org)

As above, sample ATF forms will provide examples of completed forms for you to refer to.

### Fire Marshal

It's time to contact your local Fire Marshal to gain his support for storage of high power motors in your garage (or in a friend's or whatever, if you choose not to store at your residence).

Call the County Fire Marshal and request an appointment with him or a representative to meet at your house. It's much easier to understand a situation by meeting at the actual location of APCP storage and talking face-to-face with the parties involved. Find out what regulatory statutes are followed in your county. In Washington, it's typically BOCA, NFPR or some interpretation of the Uniform fire Code or NAFFPA. And each county may vary. The Washington reference is WAC 212-20-660 but I've found a lot of interpretive

license applied there. Be flexible.

In your conversation with the Fire Marshal representative:

1. Explain that you are involved in hobby rocketry.
2. Explain what hobby rocketry is. The 'ol Estes reference is usually a good comparison.
3. Explain that the ATF requires propellant grains of 62.5 gms or greater to be stored per ATF regulations which means licensing and storage. You might comment that a 62.5 gram propellant grain is about 2.25 ounces. (It's surprising how many people can't equate to metric weights).
4. Explain that you would like his permission to store APCP residentially before moving ahead with your applications to the ATF and L&I. Offer to meet him or his representative at your house to show what hobby rocketry is and where you will be storing your motors. Ultimately, you would like to have written permission from the Fire Marshal's office.

Okay, assuming that you are ready for a visit from the Fire Marshal's office (or the L&I and ATF, if you already have the Fire Marshal's permission), prepare for the meeting.



Dave Davis conducts Tripoli and Rocket Labs business at his "office" at Monroe. Photo by Newman

*"Be sure to spend a good deal of time becoming familiar with the ATF's "Orange Book" and the L&I's "Red Book". "*

## LEGAL STORAGE—PART 2 (CONT.)



**Ed Mirabella prepares his TOW missile for launch at Monroe. This launch was on a K550 and was a real crowd-pleaser. Ed always presents projects that capture the Monroe audience's attention. Photo by Newman**

Have a "G" reloadable motor available to show your visitor. Explain how it works. Show him a rocket. Indicate what a 62.5 gram propellant grain looks like if you have one.

Keep a copy of the ATF briefing paper on hand to show the ATF's current position on APCP. This can be downloaded from the ROL site.

Have copies of the MSDS sheets for your rocket motors available. They can be downloaded from the Aerotech website.

Be prepared to show the representative your storage area (including the magazine if it's completed).

Show the physical relationship of your house to your neighbors on a drawing (it does not have to be fancy and you will have to submit one to the ATF and L&I, anyway). Indicate that you have spoken to your neighbors about your hobby and the storage of motors (a good thing to do, if you haven't already done it).

Have examples of other area rocketeers that have permission to store in their residences.

Keep a letter handy with a suggested content that might be used to grant you permission to store.

Now, for the meeting:

1. Introduce your visitor to hobby rocketry.
2. Show models, the motor, pictures.
3. Show a typical 62.5 gram propellant grain.
4. Present the ATF paper briefing local offices on hobby rocket motors. Show the ATF and L&I requirements for storage and permitting.
5. Show the drawing of your home and offer to walk the area with the AHJ.
6. Specifically show the AHJ what you need from him or her regarding a letter of permission to store large rocket motors in a Type 4 magazine that will be located in your attached garage per the ATF briefing letter.
7. Show the example letter.
8. Ask what questions he or she may have.

Respond to your visitor as appropriate and certainly show your willingness to comply with whatever regulatory requirements exist.

My experience has been very favorable in securing the ability to store at my residence. With patience and preparation, your experience will be positive, too. If you have any questions, please email me. Happy flying!

*"Keep a letter handy with a suggested content that might be used to grant you permission to store."*

## 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/](http://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)

August 5th (Sunday)

August 11th (Saturday)

August 11th (Saturday)

August 12th (Sunday)

August 18th (Saturday)

August 24-26th (Fri\_Sun)

August 24-26th (Fri\_Sun)

August 25th (Saturday)

September 1st (Saturday)

September 2nd (Sunday)

September 8th (Saturday)

September 9th (Sunday)

September 14th-16th

September 15th, (Saturday)

September 15-16th (Sat-Sun)

September 22nd (Saturday)

September 29th-30th (Sat-Sun)

October 6th (Saturday)

October 5th-7th (Fri-Sun)

October 7th (Sunday)

October 13th (Saturday)

October 14th (Sunday)

October 20th (Saturday)

October 20th-22nd (Sat—Mon)

November 3rd (Saturday)

November 4th (Sunday)

December 1st (Saturday)

December 2nd (Sunday)

### Launch Contacts:

Washington Aerospace  
Tripoli Puget Sound  
Monroe Launches  
Blue Mountain Rocketeers

B.E.M.R.C.

Seattle NAR (SEANAR)

Spokane Area Rocket Club (SPARC)

Tripoli – Oregon

Tripoli – Portland

Puyallup, WA (WA Aerospace Meeting)

Monroe, WA (TRAPS-WAC)

Dayton, WA BMR

Kent, WA (BEMRC)

Spokane, WA (S.P.A.R.C.)

Offutt Lake, WA (Washington Aero)

Brothers, OR (OREO—EX Launch)

Black Rock NV (Aeronaut 2001)

Redmond, WA (SEANAR) 60 Acres Park

Puyallup, WA (WA Aerospace Meeting)

Monroe, WA (TRAPS-WAC)

Dayton, WA BMR (Rolling Thunder)

Spokane, WA (SPARC)

Bonneville, UT UROC Hellfire 7

Offutt Lake, WA (Washington Aero)

Sheridan, OR (OREO) Mon EX Day

Redmond, WA (SEANAR)60 Acres Park

Black Rock NV BALLS 11

Puyallup, WA (WA Aerospace Meeting)

Black Rock, NV Aeropac XIII

Monroe, WA (TRAPS-WAC)

Dayton, WA BMR (Rocktoberfest)

Spokane, WA (SPARC)

Offutt Lake, WA (Washington Aero)

Brothers, OR (OREO)

Puyallup, WA (WA Aerospace Meeting)

Monroe, WA (TRAPS-WAC)

Puyallup, WA (WA Aerospace Meeting)

Monroe, WA (TRAPS-WAC)

Kent Newman 360-893-1148

Bruce Johnson 425-228-7292

Christopher Scott 253-858-7256

Tim Quigg 509-382-4176

Lauren Anstead 206-655-3238

Don Qualls 206-784-1667

Bret Conant 509-299-7122

Gary Fillible 503-843-3137

Dennis Winningstad 503-297-3685