



Welcome to the Birmingham Rocket Boys FAQ!

The BRB FAQ is an effort to post references and answers to questions that are asked by members and first time flyers on a regular basis. It covers most, but not all issues, rules, regulations and general information. The FAQ is intended to be a living document that will grow, expand and be reorganized and modified over time. All BRB members are expected to have a working knowledge of the FAQ and it's information. To that end every effort to keep the FAQ as brief and concise as possible will be made. Members, please check back at least monthly for updates. Send questions, comments and suggestions about the FAQ to Randy DeArman at: randyolb@hotmail.com

By flying with BRB, you are saying that you have read and accept the Bylaws, guidelines, rules and regulations of the National Association of Rocketry and the Birmingham Rocket Boys found in this FAQ and on the BRB and the NAR websites.

The information in this FAQ applies to all current and future flying fields at BRB disposal. BRB members and guests are only able to fly by special and limited permission of the landowners, i.e. The City of Birmingham and Mr. & Mrs. Rasberry and we must always remember that we are their guests.

Please check other areas of the BRB website for current information about launch schedule, images, member roster, newsletter, etc.

What follows is a list of facts, rules and guidelines that have been compiled by the NAR, BRB members and officers, and as a result of the direct requests and stipulations of those who own and control the fields we use.

Benefits of Membership and Flying With BRB

There are many benefits that come with membership and flying with BRB including quarterly meetings, monthly launches, many members with decades of building and flying experience, club equipment, 2 fields to fly from, club website, educational outreach program that includes demo and sport launches, low/mid/high powered rocketry, contests, insurance, family based environment available to assist all types of youth and adult groups such as area schools, 4-H, Boy & Girl Scouts, Team America Rocketry Challenge and USLI teams just to name a few.

Meetings: January, April, July, & October, 2nd Sunday of the month. 2:00 pm at Alacom Finance, Birmingham.

Launches: Every month on 3rd Saturday from 10:00 AM - 4:00 PM using alternating launch sites.

High Power Rocketry: Current waivers 3,000 to 5,000 ft AGL. Level 1 & 2 Certifications

Safety

First and foremost with every NAR Section is safety. Safety is not automatic. All those who fly with BRB are expected to know and follow the Model Rocket and High Power Rocket safety codes. Please click the links below to read the safety codes posted on the NAR website.

NAR Model Rocket Safety Code





<http://www.nar.org/NARmrsc.html>

NAR HPR Safety Code

<http://www.nar.org/NARhpsc.html>

BRB By-Laws

<http://birminghamrocketboys.org/ClubInfo/BRBBylaws.htm>

General Information

BRB is a family oriented club. All flyers are expected to be friendly, courteous and respectful of all attendees, at all times. Profanity, drugs, alcohol and abusive behavior are not allowed and will not be tolerated.

Meetings: Second Sunday of January, April, July and October. Check BRB website for time and location.

Launches: Third Saturday of each month. Check BRB website for time and location.

Quick Facts You Need To Know

1. A rocket that hangs on a power line will be considered lost, no efforts will be made to retrieve it.
2. Per NAR regulations launch operations will cease when wind speeds reach 20 mph.
3. No alcohol is ever allowed at BRB launches.
4. No drugs that could affect your judgment or reflexes are allowed.
5. Camping is not allowed at either field at this time.
6. If you bring a personal launch pad please bring some form of fire suppression. Fire extinguisher, fire blanket, garden type spray can with water, etc.
7. All types of rockets must have some form of safe recovery.
8. No trees will be cut down to recover rockets.
9. All tents must be fully staked.
10. To prevent property damage and injuries it is strongly suggested that all tents be taken down when wind speed reaches 15 mph.
11. Sunday launches are not permitted at this time.
12. Everyone flies at their own risk.
13. Each flyer is responsible for damage caused by their rockets.
14. Can I fly alone at either field, at any time? No. See **Field Use**.

Field Use

BRB does not own the fields we use and they are only available through BRB and at the posted launch date and times. The New Georgia Land Fill is an active landfill and is in daily operation by the City of Birmingham. The City restricts access to the landfill during operating hours to City employees only. The





Jemison field is an active cattle ranch and is also used daily for that purpose. Understandably, the owner restricts our access to the posted and specified times that are convenient for him.

*Please do not contact the field managers / owners, to ask for special permission to fly outside of BRB Board scheduled launches. All permissions are negotiated by, and granted exclusively to, The Birmingham Rocket Boys. For that reason, all launches require the approval of the BRB Board of Officers. If for any reason you need a special launch time / date for TARC, USLI, School events, Scouts, etc. please contact the BRB Board of Officers to make a formal request. No one is allowed to fly at any time without the acknowledgement and permission of the full

Board of BRB Officers. All launches require the presence of at least 1 BRB officer.

Cancellation / Last Minute Notices Before A Launch

All launch dates and times are posted to the BRB website in advance but weather is always a factor when we fly. When the local forecasts are borderline, it may be necessary to make a final **GO / NO GO** decision the evening just prior to a launch. Because BRB launches are always on a Saturday there will be times that a final determination to fly may not be made until the Friday evening before a launch. Therefore, please check the BRB website after 7 pm for last minute changes.

Landfill

BRB began flying at the New Georgia Land Fill in 2004. Because a strong and positive relationship exists between BRB and the City of Birmingham, BRB members have enjoyed some additional freedoms, conveniences and flexibility not possible at other fields or for other clubs. The field is available monthly for club launches and at other times for TARC, USLI and special events like the Birmingham Blast Off and night launches. Normal Land Fill flight time: 10 AM until 4 PM The Landfill officially closes at 4 PM.

Jemison

The Jemison field is a new field and its use will bring a different set of flying opportunities, responsibilities and pitfalls for all BRB flyers. Several phases of flight operations will be slightly different there, than what we have been used to at the Landfill and Winterboro. We will be taking things slowly as the club establishes a relationship with the landowner. All parties need to get to know each other and learn the boundaries of the relationship.

The Jemison field is an active cattle / hay farm and for obvious reasons there will be a few additional restrictions. The field we will be using is for hay production for the owner's cattle. We absolutely must be vigilant about fire protection and suppression.

The one thing everyone must remember is that no matter where BRB fly's, we are the land owner's guests. We must be on our best behavior, courteous and respectful of other members and particularly the land owners. Even though we will be in a large open field, it is their home. No matter who owns the fields we fly from, we must always remember they are doing us a favor, we need them, they do not need us. A great deal of effort and time has already been invested in acquiring the Landfill and Jemison launch fields. They can be lost in a split second if we are careless, rude or poor guests.

We already know that in the past other people and groups have been allowed to use the Jemison field for other types of recreation and they are no longer allowed to do so, due to being poor guests. They created





too many paths through the hay and damaged the crop. Cattle can be like goats; they will eat just about anything they find including rocket parts. We must remove all trash and debris from the field. Please take your trash home with you after each launch.

Jemison Field - Site Specific Rules

*At the landowners request these rules apply in addition to NAR Safety Codes and BRB guidelines.

1. No bicycles, motorcycles, ATV's, etc. are permitted at Jemison, at anytime.
2. Never drive on the grass! All vehicles **MUST** stay on the pathways at all times. If there is a mud puddle go through it, not around it.
3. Drive and park in designated areas only and where the ground is hard to avoid making paths in the hay.
4. Do not approach the farm animals, try to feed or pet them. Please keep your distance.
5. We will not ask the landowners for any type of assistance. Do not ask to use their bathroom, phone, etc.
6. All recoveries will be made by walking to your rocket.
7. No trees will be cut down to retrieve a rocket.
8. All trash must be removed, including all igniters, engines plugs, casings, paper, packages and debris of all kinds.
9. We want ZERO rockets landing off the field and aggravating the neighbors or the landowner.
10. Please do not bring your pets to Jemison.
11. Lawn darts can start fires. Therefore, all complex rockets regardless of size, multi-engine, staged or clustered, will be RSO'd by a BRB officer to make sure they will ignite reliably, have sufficient speed not to weathercock off the rod until the rocket has been proven in flight.
12. All new flyers and first timers will be RSO'd, all flights, regardless of motor size.
13. In dry grass conditions ALL high power pads will be placed on fire blankets or bare dirt, road, etc.
14. Flying into clouds is not permitted - we will use the lowest of a variable cloud ceiling as a base line assessment.
15. Fire extinguishers will be placed at all pad banks, and approximately 100' yards upwind of the low power pads, which is where a typical low power rocket will most likely lawn dart.
16. All pads will be clustered together in one place. We can not spread out the launch pads at Jemison like we do at the landfill.
17. Is camping allowed? No. At some point when we have established a very positive relationship with the landowner we may ask about a possible club camp out.

Club Outreach

All BRB members are eligible to help with outreach activities. If you would like to join the outreach team please contact the BRB president.

Notice to All Teachers and Youth Leaders Requesting Outreach

BRB outreach resources and members are available to public and private schools, TARC teams, USLI teams, Boy & Girl Scouts, C.A.P., 4 H and many other worthwhile organizations by request. To request a lecture, launch demonstration, build and blast, etc. please contact the president of BRB through the email link on the BRB website.

Everyone should be aware that BRB outreach is performed by BRB officers and members who donate their time and expertise and at their own expense. Almost all outreach members work regular jobs and





when an outreach event takes place during regular weekday business hours Outreach Team members must ask their employers for time off from their jobs, many times using personal holidays in order to assist with outreach events. For those reasons we ask that requests for assistance be made at least 30 days in advance if at all possible.

Club Expenses / Membership Dues

April 1 is the date set by the BRB board for paying annual membership dues. Everyone please note that anyone who has joined BRB since April 1st of the current year has had his or her dues prorated through March of the current year. Full annual memberships are due April 1, each year, for all BRB members. Amount due depends on the type of membership you choose, please check the BRB website to review types of membership and their cost.

Why is there a small membership fee and what happens with the money collected for membership? It takes quite a bit of money to run any NAR club and annual dues are an important part of the club's income for the entire year. All clubs have the same general expenses each year and they handle them in various ways that work best for the local Section. Some clubs charge a launch or range fee on a per day, or per person basis, or both. Some charge a membership fee like BRB along with, per event fees. The good thing for BRB is that to this point, the club is allowed to use both of our fields, rent free. Many clubs have to pay the landowner a fee or percentage of their "event income" for the use of their land. To this point BRB has not had to do this, so we don't have to charge a launch day fee at this time. It all comes down to what a local NAR Section has to do to maintain their club.

Membership dues also go to help cover the cost of many things like BRB's NAR Section Charter, insurance, website fees, Outreach, our annual event The Birmingham Blast Off, porta potties when we need them, launch equipment construction and maintenance, storage magazines for HPR and many other fees and expenses that pop up from time to time. As a FYI, the Blast Off is not a fundraiser for BRB; it's part of our community Outreach.

As a member of BRB, the most important thing you need to know is that no one in BRB is paid to hold office, store and haul equipment, process paperwork, work on the website, etc. Every office is an elected position, manned on a volunteer basis, with each officer freely donating their time, talents and many times their personal expense, not to mention they all pay their own dues too. It actually costs the officers a good deal of money to hold the office. In the past all of them have donated money, helped pay for things that were needed like website fees, launch equipment, time off of their real jobs for Outreach activities and personal gas expenses just to name a few. Many of our regular members are presently doing the same things or have done so in the past.

Many times new members wonder just how much money does it takes to keep things going? Here are a few examples in round figures.

In 2004 the original club pads and launch system: \$600. Our second launch set of 12 pads will be \$500+ more.

Website fees: about \$130 per year.

NAR Charter: \$25 per year.

HPR Magazine: \$500

BRB promotional flyers, color on both sides approx: \$400 - Donated by corporate sponsor Alacom Finance since 2006.

This is the short list and as you can see, the needs of the club are a good bit more than what annual dues alone will cover. Depending on current membership from year to year, annual dues generate approximately \$350-\$500 per year. Obviously and that's far from covering all annual expenses.





This is where our member's talents, generosity and club sponsors come in. Alacom and PTL Auto & Tire have been with BRB almost from the start and have made large cash donations annually. Along the way other individuals, small companies and members have donated time, talents and money. Their donations have helped to bridge the gap when we have had one. Chef Clayton Sherrod has provided our Blast Off amenities every year. Others have also contributed in some way from time to time.

Everything has a life span; at some point all the equipment will need repairs or replacement, so the cycle will start all over again. Every expense BRB has to budget for over the course of the year is not listed here. There are many little things that add up too, but as you can see, there are many financial demands and our dues are a small, but important part of our resources.

The officers of BRB have been good stewards with the money that comes through BRB and we will continue to do all we can to stretch every dollar. Because many wonderful sponsors and individuals have made regular generous donations since the club began, our dues have not increased since the club was started. At some point it may be necessary to raise membership dues but every effort will be made to hold the line as long as possible.

Dues are as follows:

Under age 12	free
age 12-17	\$12
age 18+	\$18
Family	\$24

If you are a dues paying member, when the dues notice comes in your mail or email, please respond by April 30, of the current year. Help us quickly wrap up this portion of the work needed to keep BRB flying high and reaching out to the community all year long.

Dues should be paid each year to the current BRB treasurer by mail or in person by Apr 30th.

Night Flying

In an effort to answer questions in advance the following is a list of guidelines, requirements, rules, items needed for building and tips for making your rockets "night time flight worthy."

While BRB always fly's by the NAR Safety Code night flying requires a few additional common sense guidelines while using the FAR 101.1 model rocket definition.

*HPR night flying is not permitted.

Please note the following:

1. Flyers and spectators do so at their own risk. All spectators and flyers assume full responsibility for their own safety and their rockets.
2. Children under the age of 14 must be closely monitored by their parents at all times.
3. For obvious reasons, no running to catch rockets.
4. All flights will be deemed as "Heads Up" flights.
5. Inexpensive glow sticks, glow necklaces and glow bracelets may be purchased at any Dollar store, Walmart or hobby store. Please plan to wear at least 1 of these items at all times.
*Light colored clothing like a white t-shirt is a good idea for after dark.
6. Night motors are limited to A-G. Max altitude 1200'.
7. All rockets to be flown must have a **BRIGHT** continuous onboard light source that stays on the entire flight. Engine exhaust and ejection do not count as part of an illumination package.





8. In order to keep the range safe, each flight will need to conclude before another launch is permitted. If you plan to use your own pad, it must be illuminated as well, i.e. glow sticks or red or green lights.
9. Night flying at the landfill must end by 9:15pm. We must be packed up and gone no later than 10pm. Rockets not recovered by 10pm will be left.
10. Most important: Always use your best judgment when flying. If it doesn't seem like a good idea, it probably isn't.
11. All rockets must be submitted to a Night Flight RSO before they may be flown. No exceptions.
12. Night launches will always follow a day launch. It will be much easier to breakdown your camp while there is still some daylight. To that end we suggest that well before dark pack up anything that is not necessary for night flying.

Tips on building "night worthy" rockets and items to use for illumination:

Please plan on recovering each rocket before you make another flight. Rockets may carry lights of any color and as bright as you care to make them. Please note that in order to protect everyone's night vision, just before and during the night launch we ask that all lighting equipment used for prepping and recovery be kept to a minimum and low wattage.

We want to have enough light to function but not enough to disrupt the over all theme of the launch and if at all possible, lights should be shielded to project light downward and turned off when not needed. Tips on ways to light your pads, rockets and prepping area are also listed in the FAQ.

Where and if possible, please use a green, yellow or red lens flashlight. Red, yellow and green lens material can be found at most hobby stores, Walmart, etc. or colored packing tape can be used over a regular flashlight lens to get the same effect.

If anyone has to use a regular white light of any kind, please use one of low intensity and only when necessary. A standard nite light works well.

*No high intensity lighting, please! Mag Lights or similar flashlights are not recommended during launch. This will not be a good time to show off your "Tim The Tool Man Taylor" 50k generator or 60 gigawatt Christmas lights.

Please keep in mind our proximity to the airport and the nearby neighborhood. We would also ask that everyone (especially the kids) please refrain from "spot lighting" other flyers, spectators, rockets in flight, passing planes - and the neighboring houses, which is actually against the law.

After the night launch is over, regular flashlights or car headlights as bright as you want may be used for packing up.

It is strongly suggested that you have your night flight rockets RSO'ed as soon as possible, just in case you need to make adjustments while there is daylight and time to make them. If your rocket is new or has never been modified for night flights please plan to make at least 1 daylight flight with it to make sure things will go well that evening.

SEARS 572 President Greg Lane has a good deal of experience with night launches. Below are Greg's tips.

Light sticks are one way go. LEDs can be put inside a nose cone and will shine thru in some cases. If you have time for electronics it is a matter of looking around and finding items to adapt. The LED pendants are easy to tape on most rockets. It is best to have minimum equipment out because pickup is hard after dark. Note you can use light sticks on dowels to mark a path to your pad. Also, LEDs can be securely taped to a saucer.





From George Gassaway...

I've uploaded a video showing the LED Finger Light and how well it lights up an unpainted Estes long BT-60 nose cone: http://homepage.mac.com/georgegassaway/LED_Nose_Cone.mov This video is only 1.3 megs so it would be worth the wait for the download.

I only taped the light in place for the test, after making a 1/2" hole in the nose cone. This is not a permanent fix for flying, the light would need to be securely attached, perhaps inside the nose, in a way that would not let it fall out easily but would allow turning it on and off.

For more info on obtaining the Finger Lights, Google the keywords: L E D finger light. The black strap is a Velcro strap that allows strapping the light to a finger. I've found these for sale at the Wal-Mart 10 items or less (and cigarettes) check-out line, and at a dime store last fall among their Halloween items. At a price of about \$2.00 each. You might also check stores like Dollar General, etc.

Items to use and where to find them: Glow sticks, earrings, finger lights, glow wire, bracelets, necklaces, etc. of various sizes and colors can be found at Walmart, Dollar General, Dollar Store, Auto Zone, Hobby Lobby, Michaels, etc. Be sure to look in the sporting goods department and automotive sections too. There are many places online that feature even more items. Windy City Novelties has dozens of items that can be modified for rockets. <http://www.windycitynovelties.com/>

While it might be possible to attach some type of illumination to the outside of an existing rocket, it generally is not recommended, especially with smaller rockets but if you would like to try and modify an existing rocket that will be ok, but make sure you do not adversely affect the cg /cp relationship of the rocket or add too much weight. Weigh your rocket fully prepped and make sure the engine you will be using will provide enough power for a safe flight. In this case, larger is better.

If your modification is to simply tape a couple of glow sticks, l.e.d.'s, etc. to the main body tube of an existing rocket, also make sure to use clear packing tape and it is "balanced." Packing tape has a lot more "stick" and a higher tensile strength than regular clear tapes like Scotch Magic tape.

Obviously purchasing a clear payload bay kit from Estes, Quest, etc. is one option but if you'd like to build one of your own designs from scratch or make a simple clear payload bay for one of your existing rockets you can pick up some clear tubing at Lowes or Home Depot. It is most commonly used as a protective sleeve around florescent light tubes. You'll find it in at least 2 diameters and 4' - 8' lengths, so you could make quite a large bay or several.

The larger of the two sizes is a perfect fit for a bt 60. All that would be needed for a retro fit of an existing rocket would be to cut a piece of tubing long enough to carry your light source and attach between the upper end of the bt and the nose cone. If your new payload bay is too long you might need to replace the shock cord and make it a few inches longer.

Recalls and Banned Rockets

The following rockets have been recalled by Estes Industries:

1. **X-15 RTF Flying Model Rocket Model #1890**
2. **X-15 RTF Flying Model Rocket Starter Set Model #1412**
3. **Air Powered Rocket GL-X200**

The recall does not affect all X-15 type rockets, only the ones with the model numbers listed above.





X-15's manufactured by other companies or that are scratch built may be allowed to fly at BRB launches - if the RSO deems them safe. Should Estes redesign these rockets and the recall be rescinded they may be allowed to fly at BRB launches at some point in the future. Until that time these models will not be allowed to fly at BRB launches. Several BRB members have offered viable suggestions for modifying the recalled rockets so that they could be flown safely at BRB launches, and while a simple minor modification or two might provide a solution for the recalled rockets to be safe, due to the liabilities and legalities involved we can not allow any rocket that has been recalled by the U.S. Consumer Product Safety Commission to be flown at BRB launches. The bottom line is that it is not our job as NAR members, or BRB officers, to find a solution for recalled rockets, planes, engines, etc. It is our job to protect our guests, flyers and BRB from possible injury and / or litigation. For recall information and a full report for the rockets listed above, including how to obtain free replacement please go to:

<http://www.cpsc.gov/cpscpub/prerel/prhtml07/07319.html>

<http://www.cpsc.gov/cpscpub/prerel/prhtml02/02142.html>

