

Information for P2 and H2 pilots @ Mt. Brace

Important technical. weather and safety information for our new pilots. plus some etiquette.

All free flying pilots are welcome at Brace, and the Mt. Brace Club as well as the Flight Park are committed to opening this mountain and the sky to as many aspiring pilots as possible. This includes especially newly minted P2/H2 pilots, as well as all others with limited mountain launch experience, for which continued availability of Brace is extra important. There are few flying sites in New England, and even fewer which are open to newcomers. With apologies if this feels patronizing, but in order to keep everyone safe and the site functioning, a certain amount of learning about launching and flying at Brace is necessary.

1. Rationale

- a) The Brace launch is on state park land, and too many disturbances would certainly jeopardize it. Therefore the use of the Brace flying site needs to be organized in order to preserve it.
- b) Brace is a real mountain launch, not a forgiving training hill. Newer pilots need special guidance until their skills and experience enable them to stay out of trouble on the merit of their own, fully informed decisions.

2. That whole instructor/ mentor thing

If you are a new P2/H2 pilot, and your first 10 high mountain flights (over 1,000 feet AGL) are at Mt. Brace, you require the presence of sanctioned USHPA instructors. The first 3 high mountain flights must have one Instructor on Launch and another Instructor or USHPA Observer guiding in the Flight Park LZ. Most will charge you a fee of \$25 per supervised flight. Pre-arrange your appointments, and plan to go up early. Treat this like a lesson-by-appointment. Try to learn something from the instruction.

After your first 10 high mountain flights (whether they have been at Brace or somewhere else), and until you receive your P3/H3 rating, the presence of a Brace Club Mentor, appointed by the Mt. Brace Club, is required at launch. There are no mentor fees. Pre-arrange your appointments, plan to go up early, and aim for 2 flights/day.

When you have 10 high mountain flights, witnessed in your log book by a USHPA Instructor or USHPA Observer, you may ask for a *Brace Club Approved P2/H2 Pilot* helmet sticker. **Do not fly Brace without Instructor supervision unless you have a helmet sticker.** (P3,H3, P4 and H4 stickers are available to qualified pilots)

Why do we ask new P2/H2 pilots to fly with instructors (first 10 high mountain flights) or mentors (until P3/H3 rating)? Because the Brace launch is not a forgiving training hill, and because learning by trial and error works well for, say, fly fishing, but not so much in aviation. This is not a formal requirement for its own sake. Everyone wants you to become a sufficiently competent pilot as soon as possible.

You will need guidance to assess launch and flight conditions, and more so during your first 10 flights. Listen, learn, observe and ask questions. Be early. Make your arrangements on the day before. Your mission is to acquire technical launch skills, experience and site knowledge, while erring on the side of caution.

If you show up late at the LZ, 11.00 am or later, barely connected with your mentor, trying to figure out the day, you are probably already too late. Then you will not be ready to launch at least until 1.00 pm, probably when the cycles are already too strong for you.

If you want to continue to find willing mentors, allow them to launch when it's getting good, by launching well before them. With a P2/H2 rating, you should not be jockeying for a launch during the most demanding time anyway. If you can't launch quickly when it's getting stronger, your mentor may leave you behind and take off. Then what? How do you get down? At this stage of your flying career, it's smarter to use every chance for an uneventful launch that presents itself. Extending your flights comes later- be patient, and live to fly another day.

3. [Mt. Brace Instructor and Mentor List](#)

4. The Launch

At the right time, Brace can be safely launched by new pilots, if you pay attention to your instructors or mentors and keep honing your skills. You can learn a lot at this mountain. Make it part of your ongoing education.

But to assume that the Brace launch is totally unproblematic just because some other, easier looking sites are putting tighter limits on pilots would be a big mistake.

- a) The launch area is part of the Taconic State Park, and no changes to the land are permitted. Therefore, your "runway" is studded with tree roots, dips, holes, bushes, small trees, dead branches and sharp rocks, plus the occasional rattle snake. Tripping is common, as are cut or tangled PG lines. The launch area is also not steep or smooth enough to compensate for major shortcomings in launch technique (tailwind, wing control issues, overload, slow acceleration, etc.). If your launch attempt is mediocre, you may get a few scratches. If your launch fails entirely, you don't abort and collide with tree limbs or rocks at take off speed, you can suffer dramatic consequences.

We see a lot of launch attempts ending up in the trees and bushes, most of them harmless, and all of them avoidable. The first thing for new pilots to appreciate is that the Brace launch is shaped like a ski trail carved into a tree covered mountain top. What that means is that any prevailing wind direction other than straight West will cause turbulences at the tree lined edges and in the launch slot. Even if the streamers inside of the slot show West, the airflow 30ft higher can be 30 degrees different, which will make the transition area a little bouncy. Once your wing is out in the air stream, it may get impulses the streamers did not indicate. Before you launch, observe both the windsock and the streamers for a while and compare. When thermal cycles develop, they tend to straighten out the wind direction in the launch area, but those cycles also contain more energy and will try to bully you around in their own way.

- b) Your launch technique. You need to be comfortable with reverse launches (PG only;-)). A forward launch will only rarely be the better choice. If your launch preparation gets you out of balance, or pushes you to one side, or your wing is coming up crooked, start over. Like with most PG issues, kiting and ground handling practice helps a lot.

The critical point to understand is that you need good airspeed in order to be able to steer your glider away from obstacles (the bushes left and right). And you will only achieve good airspeed if your paraglider is allowed to accelerate unhindered when you start running AND for 1 or 2 seconds AFTER your feet have left the ground. Fight your instinct to try gaining altitude by braking while you are still launching. Depending on the day and your glider, a little (!) bit of brake may be the right amount, but if you find yourself trying to run with your hands very deep in the brakes you are doing something seriously wrong.

But before you are about to fly into the trees on either side, by all means, steer away from them. This will work a lot better if your glider has been allowed to gain some speed beforehand.

5. Weather

Brace is mainly launch able with wind directions between W/ and SW. If the prevailing wind is light, thermal cycles in the middle of the day will often change the perceived airflow in the launch slot to West. It is perfectly possible to launch into a west wind and then to encounter a strong south wind in the valley. Be aware of what you are getting into. The signs are very obvious. If you are very new to this, avoid launches where you have to deal with multiple wind directions.

Observe. It's always a good idea to arrive early at launch and to observe for a while what is going on. Parawaiting does not have to be lost time. Every day on the mountain provides more data points for your personal memory, no matter if you are walking or flying down. How often do the cycles come in? What is their strongest speed? How much are the thermals being pushed to leeward? Do the streamers switch direction? Do the birds indicate the same wind direction as the windsock? Are the clouds moving into the direction you expected? Hopefully you did check the forecast for Winds Aloft, i.e. here: [WindsAloft](#)

In general, clouds and other weather formations will travel with the winds at altitude (i.e. 3,000- 6,000 ft). For flyable days at Brace, that is most often 9N - NN (but check that). Look into that direction and see how the clouds are building to windward. Are they already higher than wide? Getting dark underneath? Stay on the ground. If you have a smart phone, look at the radar picture. Does it already rain upwind from you? Don't even think about flying. Once you are in the air, upwind is the direction to pay the most attention to.

Weather is a much bigger topic, of course. Buy a good book and keep learning.

6. Timing

Every day is different. Having said that, the easiest time to launch on a thermally active day (March through November) is late morning, when the first westerly cycles start to come in, and late afternoon, after a steady westerly airflow has been established.

If you have fewer than 50- 100 mountain flights, early morning and late afternoon flying is what you should be aiming for. Expect to do many sled rides, and be pleasantly surprised when more and more are turning into extended soaring experiences. Focus on mastering your launches, and try to do many. You will benefit much more from two short flights early and late in the day than from a single accidental thermal adventure. Push the envelope, but only a little bit at any one time. If the afternoon gusts push your launch attempt into the bushes more than once, you have been too ambitious. Review your attitude. Stay safe. At this stage, you need launch practice much more than airtime.

7. Risk profile of the day.

Different days present different challenges. You need to understand what they are before you fly.

- a) Days with very light prevailing winds but good lapse rates will allow pilots to thermal over and behind the mountain top, but will be less forgiving if you start scratching low over the trees in front. When there is thermal lift, there is also sink, which can dump you 20ft very unceremoniously.

- b) Days with strong cross winds present the biggest launch challenges, and may also cause turbulences behind or along ridges. Scratching low is not a good idea due to the heightened chance for collapses in rotors. For advanced pilots who get up, distances may be easier to achieve.
- c) Days with strong westerly winds make it easy to soar along the ridge in dynamic lift, often for hours. But you need to stay well in front of the mountain until you have a feeling for wind strength and gradient. The risk to get blown back is what you need to be most respectful of on such days. Approach these situations very defensively. Somewhere behind the ridge lies a very deceptive point-of-no-return, since the lifting component disappears
- d) suddenly once you are too far back. Landings half a mile down wind, in trees and turbulence, don't have happy endings.
- e) Quickly changing conditions. Especially during the summer months, the weather in the area can go from nice
- f) clouds to full on downpour back to blue sky within two hours. Be respectful. Not all weather is moving upon you, much is actually developing above you. Sometimes you are where it happens first.
- g) Moving fronts. Check the entire weather situation, and not just the forecast. Predictions can be off by a few hours. If you get surprised by a fast moving front, you have been careless with your life.

There are more patterns. Share your observations.

8. Launch accessibility

Well, it's not. It's a 90 minute hike up the front, or a 45 min drive plus a 45 min hike over the back, for most people. Parts of the trails are steep and tough. What that means also, is that there is no easy way of getting you out if you get hurt during launch. If you suffer a time critical injury, a helicopter rescue will still take 90 minutes, and will cost you thousands of \$\$\$. It's smart to minimize your risks.

9. Equipment and Clothing

Covering any exposed skin during launch is highly recommended. The last helicopter rescue could have very likely been avoided if the pilot would have been wearing long pants. If you end up on the rough ground or in the trees, you will be thankful for any difference a pair of jeans or a nylon jacket can make. They are also a good protection when you help your fellow pilots out of the trees, which will happen. Plus, it's cold at cloud base.

10. Attitude and Objectives

As a relatively new pilot, your state of mind should be one where you are seeking flying experience in an enjoyable way, while progressing carefully to become a better pilot. Your objective should be to become as fast as possible self sufficient, able to make your own decisions where and when to fly, and while living to tell the tale. Notice that flying longer or farther has nothing to do with this. Logging 1,000 flights without a tree landing is just as important an accomplishment as holding your local XC record. Notice too that flying with a 99% safety probability is not good enough. Notice that many of your senior pilots have logged several thousands of flights. They wouldn't be around if they screwed up 1 out of every 100 flights.

Are you flying with a video camera? A vario? A cockpit? Does your flight suit look like an oyster bank at low tide? Please consider focusing entirely on your flight, and on feeling what wing and wind are trying to tell you. During your first 100+ flights, it is better not to distract yourself with technology at the expense of developing feel and judgment.

The most difficult task in free flight is to control your own ego. Thanks to science and technology, the flying itself has been made easy. But picking the right wing, tasks and flying circumstances can be hard. Being able to judge you and your aircraft's limitations accurately is a major skill. Be aware of the tricks your own mind is playing you.

11. Etiquette

The Brace launch allows only one glider at a time. You should not work on your launch skills during the time window when the best flights can be had, if any other pilots are waiting. During the busiest time you need to be able to perform, or everyone else will suffer because of you.

It is generally considered bad form to push other people into launching. The right moment can only be the pilot's decision. Be mindful of that when you have been occupying the launch slot for more than 15 minutes. Just because everybody seems polite doesn't mean you are still in the right place.

If you are not skilled enough yet to launch successfully with a single try, please don't attempt to launch when many more experienced pilots are trying to go. When it's both busy and good, it is totally unacceptable to use up two thermal cycles for opening and checking your wing, building a wall, and finally launching. It is ok to wait for the right moment, but you better be able to recognize and utilize it when that moment comes.

If your launch attempt fails, consider going back to the end of the line. People may be too considerate to tell you, but it is not ok to block the launch during prime time for 30 minutes with three launch mishaps.

It should go without saying that you should look out for your fellow pilots. Retrieve people who have landed off site. Offer rides back up. Participate in work parties. Contribute. Join in the après-flying fun. Bring some beer.

12. Summary for P2/H2 Pilots at Mt. Brace

- **You need a Mt. Brace Club sanctioned, USHPA rated instructor or mentor to launch**
- **Connect with your Instructors/mentors on the day before**
- **Aim for 2 flights/day, launching early and late. Avoid the noon-4 pm window.**
- **Master your launch skills, accelerate well. Stay out of the trees.**
- **Be sensitive to etiquette**
- **Wear protective clothing**
- **Become a student of the local weather**