

If it's in the Newsletter, it must be true...

# Maine Powerchute Association

## Newsletter

August 2018

[www.maine-powerchutes.com](http://www.maine-powerchutes.com)

## Maximum fun - minimal cost

### Our new slogan?

Yep, that's powered parachuting - "Maximum fun, minimal cost." It's our new slogan. What was the old one? Oh, we didn't have one, although we had a lot of suggestions - none suitable for a family publication. OK, so this is not exactly a family publication...

### Event wrap-up

Ft. Kent - wow - what a great event. George (and his way-too-good-for-him) sidekick Kelly are super hosts. And what a great facility. It is at the end of the world, but the 14 hours trip from anywhere is definitely worth it. Nice turnout too. This year, this sufficed as our adventure trip, since nobody could come up with a more adventuresome adventure trip. It was over the 4th of July holiday, so most of us made a week out of it. After Ft. Kent, most of the group went to Presque Isle for the second leg of the trip. We had plenty of good flying. George invited us all to his cabin on the lake for some superb smoked ribs, and a boat ride. Great time.



continued a happy chatter for the entire trip!

Bowdoinham - another one of our favorite venues - nice turnout again. Good flying for most of the weekend, great weather, and some nice scenery along the coast. No GA traffic and friendly neighbors, so this is always a relaxing family weekend. Took my 5 year old for her first flight - she

Deblois - lots of flat fields to practice your low-level flying skills, no traffic, real Mexican food, fly in any direction, and blueberries to pick. No wonder this has become one of our favorite venues - we had nine chutes in the air at one time. And of course, Kevin's light show when it got dark enough (but still legal!). This year, we had the most spectacular fireworks display ever at a fly-in when Mike and his brother Roger fired off all the rockets they had accumulated over the years.



*Thanks to Gary L. - just beautiful!*

### Improve your radio?

I think we all agree that the weakest link in our flying repertoire is the radio communications. Everybody has some problems, since we have weird set-ups with tubes, grounding issues, connection issues, static, power issues, and sticky mikes.

Steve G. had come across a technique that seems to improve some of these problems - creating a ground plane for your antenna. GA aircraft always has a ground plane, which is basically a flat sheet of metal to which the antenna is attached. See the last page for the instructions on how to set this up on your aircraft.

### Unsolicited bits of wisdom



- If I agreed with you, we'd both be wrong.
- I didn't say it was your fault, I said I was blaming you.
- 25% of the women in this country are on medication for mental illness. That's scary. It means 75% are running around untreated.
- 99% of lawyers give the rest a bad name.
- The early bird may get the worm, but the second mouse gets the cheese.

- 82.7% of all statistics are made up on the spot.
- You know that tingly little feeling you get when you really like someone you've just met? That's common sense leaving your body.

### Next events

With summer rapidly moving on, we have only 4 events left on our calendar, so plan your weekends accordingly - you don't want to miss the scintillating company of your fellow MPA members! Hmm - that's not a very strong argument - how about this - you want to see if your long-neglected PPC can still remember how to fly?

#### Weekends of:

August 17th - choice of either Plymouth, NH or Twitchells for the balloon festival. We have not been to Plymouth as a group before, but it's a fun place with good flying opportunities and a change of pace - need new sights!

August 31st - Bar Harbor with Mike - Labor day weekend, so no rush to get home Sunday morning. Lots of water and islands - definitely different flying. Make sure you get briefed before you fly - too close to a big airport.

September 22nd - Patten - beautiful field, friendly folks, no traffic, and peaceful. We've been there a few times before, but not recently - another event for a change of scenery for us. A bit of a hike, but worth it.

October 6th - Fryeburg - a shorter trip for the central/southern Maine folks. Nice field, and the locals come out to watch. Friendly FBO - usually holds a picnic for us.

The only other scheduled event after that is our famous MPA Christmas Party and Annual Meeting

in Augusta on Saturday, December 8th at 3 PM. Mark your calendar for that one - no excuses!

Even though our scheduled flying events stop after Fryeburg, it does not mean we stop flying - there will be impromptu events - call some of your friends when the weather looks good, and have some small events!



### Airport protocol

As you know, it is VERY important to know the rules of any airport where general aviation (GA) aircraft fly as well. To violate those rules not only pisses off the other pilots and aircraft and gives us all a bad name, but it is also dangerous!

All airports have a landing pattern published - the standard is left-hand traffic. Which means making left turns. The pattern is a rectangular shape, consisting of a downwind leg, a base leg, and a final leg. You enter about mid-way on the downwind leg. The standard pattern altitude is 1,000 feet AGL for GA aircraft.

For us, since we're so slow, we want to stay out of the way of GA aircraft flying their pattern, so we fly it at 300 feet, and generally do the opposite of the published pattern, i.e. if it's a left pattern, we fly a right pattern. This way, we stay out of their way.

However, the most important part is this. Clear the pattern! Make sure there is nobody on the downwind leg, or base leg. But be ABSOLUTELY sure there is nobody on the final leg, as that is where GA aircraft and our PPCs converge. If you don't clear the final before you turn onto it, and you cut

in front of somebody who is on final, really bad things can happen, like mid-air collisions. And we will definitely lose those confrontations!!!

### Stay ahead of the aircraft

If you had military flight training, or civilian fixed wing training, or a good CFI training in a PPC, you will be sick of hearing "Stay ahead of your aircraft!" It is drilled into you, because it is so important. In



*I'm not good with measurements, but is this about 8 inches?*

other words, don't be surprised. Look and think ahead. What does that mean?

It simply means plan ahead. If you're coming home, plan which way you're going to land, and start making the adjustments now instead of waiting to the last second. If you're going to do a low pass over some field, look at the trees at your entry point and your exit point. When you see you'll have to make a turn when you get near an obstacle, plan where you're going to start your turn.

Most accidents in our aircraft, and in aircraft in general, occur because of this lack of staying ahead of the aircraft. If you have to react instead of executing your plan, you'll end up in trouble most of the time. Don't be surprised! Oh, I thought I had plenty of time to climb out - what a surprise - I don't!

### **Makes sense**

Husband and wife had a tiff. Wife called up her mom and said, "He fought with me again, I am coming to live with you."

Mom said, "No darling, he must pay for his mistake. I am coming to live with you."

### **Staying current reminder**

Just a couple of reminders. Your biennial flight review is good for two years (coincidentally, that's what "biennial" means), so check your log book to make sure you're up to date. As we've said many times before, it's like renewing your driver's license - doesn't affect your driving ability, but if you get stopped for a burned out taillight or heaven forbid, speeding, you're in a heap of trouble if your license is expired. Same with flying - better to stay legal, just in case anything bad ever happens to you.

Your flight review can be done by any CFI rated in PPCs, but you need to take the on-line refresher course which suffices for the oral portion of the review. Or, attending a safety meeting in the last two years also takes care of that requirement.

Your annual condition inspection is good for one year (coincidentally, that's what "annual" means), so check your logbook for that date too. If you have the Repairman rating, you can do your own (make sure you log it), or if you don't, contact Scott so he can do that.

Our record keeping is a little shaky, so some of you have not paid your annual MPA dues of \$20, but are still getting this priceless Newsletter along with all the notices about our MPA events. So pay up -

definitely do it before our Christmas party, by which time we will have caught up with our record keeping and will spot any delinquents!

### **Some laws you may not know about**

Law of Mechanical Repair: After your hands become coated with grease, your nose will begin to itch or you'll have to pee.

Law of Probability: The probability of being watched is directly proportional to the stupidity of your act.

Law of Close Encounters: The probability of meeting someone you know increases when you are with someone you don't want to be seen with.

Law of the Result: When you try to prove to someone that a machine won't work, it will.

Law of Logical Argument: Anything is possible if you don't know what you are talking about.

### **Nostalgia** (must be over 50 to get this one)

The reason Mayberry was so peaceful and quiet was because nobody was married. Andy, Aunt Bea, Barney, Floyd, Howard, Goober, Gomer, Sam, Ernest T. Bass, Helen, Thelma Lou, Clara and, of course, Opie were all single. The only married person was Otis, and he stayed drunk.



### **The End**





A powered parachute challenge is often where to install an antenna so that you can get maximum performance out of it. We can usually receive signals from far greater distances than we can transmit to. The bad news is that radios and antennas are a bit of technology that is difficult for many to understand. The good news is that you don't have to understand the theory behind how a good radio/antenna system works in order to put together a system that can work a lot better than what you currently have.

## Purchasing the Antenna

Most of the antenna systems you can buy for aviation band radios are built for the middle of the frequency spectrum assigned to aviation. Those are the frequencies that are used by most small airports and which we know as Unicom and Multi-com frequencies. If you are adapting an antenna from another type of radio, you will need to measure the radiator (the wire whip portion of the antenna) because size does matter. You want to make sure that the whip measures 22 3/4" because that is the optimum length for the 122-124 MHz range. That is referred to as a quarter wave antenna. When purchasing the antenna, one of the most important things to watch for is the mounting hardware that comes with it. You either want the antenna to have the hardware to mount it to tubing, or you want to be able to put your hands on whatever you need to get what comes out of the box mounted on your powered parachute!

## Antenna Placement

The best placement of your antenna is as close to the center of the aircraft as possible. If you mount the antenna too far forward, you will risk blocking much of your radio signal that would be transmitted to the rear of your powered parachute. As it turns out, radio signals have a difficult time punching through metal. If you have noticed that people are able to hear your transmissions better if your powered parachute is facing them, now you know what is causing the effect.

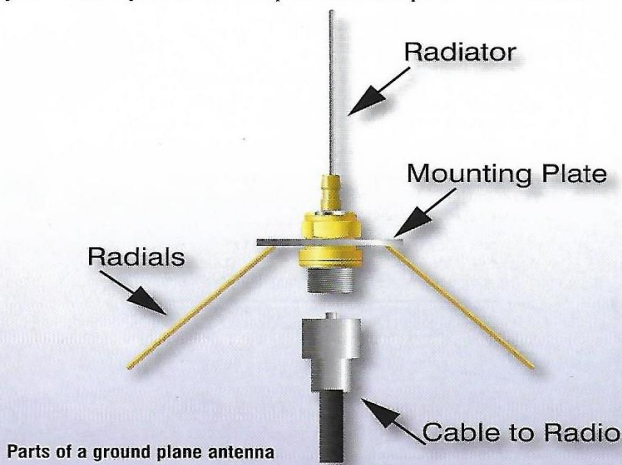
Many modern powered parachutes have some kind of center crossbrace in the front of the powered parachute and above the pilot's head. That is the preferred place for mounting. Not only does it make sure that only part of your signal is being blocked to the rear, it is also going to help when you put together a ground plane system for your aircraft.

## Ground Plane

The next issue for antenna installation is called ground plane. Ground plane is usually a large expanse of metal that the antenna is mounted to. For metal airplanes that is obviously not a big problem. Even for composite or fabric airplanes, manufacturers often build in a flat piece of metal (it can be the thickness of foil) to mount the antenna to. For aircraft that are almost completely built of tubing, finding a suitable flat plate of metal becomes more of a problem. Some people believe that the powered parachute airframe will do as a ground plane, but it really isn't the best solution.

So if you don't have a flat plate of metal four foot by four foot to use as a ground plane, the next best thing is to use ground radials. Base stations will often use four or more of these radials, but unfortunately we normally are restricted to two. However, using two radials is far better than using none!

So how do you build your ground plane antenna? Fortunately, this does not take a lot of money, and not all that much time. The radials can be made out of solid copper wire with a plastic coating like you would use to wire a house. That means your first step could be a trip to Home Depot or Lowe's. There



you can find #12 solid copper wire on a spool where you can buy it by the foot. If you have some leftover house wiring, that works, too. Take the insulated wires out of the white outer casing so you have three individual conductors. You will use only two of the insulated ones.

If your whip (or radiator) is 22 3/4" like it should be, you want your radials to each be 5% longer or 23 3/8" long. You don't have to have the dimensions down to the last 1/16", but try to get it close. Then you want to strip the insulation for one end of each wire just enough to crimp a ring terminal to the end of the radial. This is what you will use to attach it to the mounting plate of your antenna with a stainless steel screw. You should keep the rest of the insulation on the wire.

After the radial wire is attached to the mounting plate, you want to stretch it out so that you can measure from the center of the antenna to the end of the wire. That is the length you want to finally trim to 23 3/8".

Your last step is to secure the radials to either side of the antenna using plastic zip ties. When you reach the end of the cross brace, then follow up the tubes on each side until the wire is completely secured.

The illustration to the right shows the proper location for your antenna as well as the location of the radials (in green).

This should improve the range and the quality of your transmissions a lot.

