The notice posted on the airport bulletin board said,

"I fly the blue Pitts, and I can't see very well, plus I'm fast, so please try to stay out of my way. Thank you."

This is not a joke; it was an actual notice that we saw posted . . .

TAMING TRAFFIC PATTERNS

Special airplanes have special needs

Budd Davisson

. . . It's hard to know how most pilots reacted to it, but the reason we saw the notice at all was because two pilots were reading it and laughing. The absurdity of a pilot announcing to the world "Here I come, watch out" was indeed laughable, although the problems faced by that pilot and the flying community around him are very real. The reason it is absurd is because it's like a motorcycle rider expecting the world to step aside and let him through, which every bike rider knows isn't going to happen. If anything, just the opposite happens.

FLYING BLIND AND FAST

Not all aerobatic airplanes are as blind as a Pitts (few airplanes of any kind are as blind as a Pitts), but many aerobatic airplanes are indeed visually challenged. Plus, many are small and faster than most of the other airplanes in the pattern. All of these factors combine to make the simplest non-aerobatic maneuver of all, flying the pattern, both challenging and potentially lethal. Plus, we have the not-so-minor problem of keeping peace within the local flying community because of our special operational needs.

We'll get to ways of handling the safety aspect of the pattern in a moment, but this last point, keeping peace within the local community, aviation and otherwise, is a bigger problem than we sometimes realize it is. We all know the problems aerobatic practice areas have, but to a lesser degree, some of the same problems apply to flying the pattern as well.

Robert Bismuth

Steep turns in the pattern help with visibility and make aerobatic airplanes "different" from other nearby aircraft .

DON'T TRY TO RATIONALIZE

First, those of us who fly the more visually identifiable aerobatic airplanes, the biplanes and the mission-specific monoplanes, have to face one basic fact: We can't begin to rationalize what we do, and everyone knows it. For instance, when someone sees a Pitts flying overhead, much less slipping around the corner for a landing or rocketing up off the ground at an impossible angle, they all know we are just up there having a good time. And that irritates the daylights out of some people, especially when we light the wick on our engine, at which time our straight-pipes do nothing to make the sound socially acceptable. This provides a viable reason to call the airport and complain about the little airplane that's making so much noise.

The truth is there is no way to satisfy airport complainers. It's in their genes, and they are probably complaining to other parts of city government about other irritations ("Those damn kids have playing cards clipped to their bicycle spokes and are driving up and down in front of my house."). Still, when we're flying the pattern, it helps a lot if we identify where the complainers live and fly wide around them and use reduced power settings while we do it. We have to remember that we exist only because the airport lets us exist, and if it gets enough complaints, it'll have to ask us to leave.

And don't think that other pilots automatically accept us either. We have our share of enemies within the flying community too. A long-time pilot once pointed out that he saw what we do as "unnecessary aviation"; to some pilots we serve no purpose and do nothing more than clutter up the sky. So when we fly the pattern, or even when we taxi out, we're under scrutiny: If we do anything even slightly out of the ordinary, people are there to take mental notes and put another mark in the negative column of their scorecard.

Unfortunately, in many of our airplanes, we do something out of the ordinary on every takeoff and landing: we make it short and we make it steep. This is the safe way to fly our machines, but "they" don't know that. They think we are hot-dogging, when all we're trying to do is keep the runway in sight and avoid running someone else down.

When talking about keeping the troops around us happy, it all comes down to consideration. We want to do our best not to further irritate those whom we know are easily irritated by holding them up on the taxiway, cutting in front of their ridiculously long finals, flying over a known complainer's house at full power on takeoff (go around them), and a myriad of other irritating factors they freely let us know about. Right or wrong, there are more of them than there are of us, so it behooves us to stay away from them.

SAFETY FACTORS

And then there are the safety concerns of flying quick, tiny airplanes that are blind in the pattern. First, the motorcycle metaphor works beautifully. Any of us who ride bikes know the two most important aspects of our riding is "paranoia" and "defense." Even so, we are constantly amazed at the ability of the driving public do incredibly stupid and dangerous things. It is as if we and our motorcycles are invisible. The same holds true for airplanes such as ours.

We have to take a number of things into consideration: The fact that people continually get in our way isn't entirely their fault. It's usu-

ally the result of a couple of factors conspiring, beginning with the fact that we are tiny and, even if they see us—which they usually don't—they'll misjudge how far away we are and how quickly we get around the pattern. Most aerobatic airplanes aren't necessarily much faster than Piper products, although we'll eat Cessna products alive. However, speed is only part of the closure rate equation. A bigger part is that we're flying much tighter patterns so we are flying much shorter distances, sometimes less than a third to a half that of a 172 (or a B-52, which flies the same distance). Combine the shorter distance with the speed and we can rip around a pattern in a fraction of the time they expect.

A CASE IN POINT

A pilot in a 172 is sitting at the threshold having done his run-up. He looks up and sees us on downwind abeam the threshold and can't imagine that, if he taxies out to takeoff, there will be a traffic conflict. Here's a fact: If something like a Pitts is abeam the numbers and chops the power to land, that 172 will have barely taxied out onto the centerline, much less taken off, before we're chewing on its tail feathers. We have to take that into consideration and extend or go around. We can't assume the other aircraft will get off the ground. The tragedy is that the 172 driver doesn't even know he created a problem because he doesn't understand how our airplanes perform. There's nothing we can do about this kind of thing other than making a blanket assumption that "they just don't know" and work around it. It does no good to chastise them. It's our problem, not theirs, and ultimately we are in a position to make things safer for everyone.

SEEING THE BIG PICTURE

A good way to look at other aircraft is to picture them as having a small heads-up display (HUD) in the windshield while every other piece of Plexiglas is painted black. We make the assumption that they don't even know we're in the state, so we take on the entire burden of traffic separation ourselves. We expect no help from other traffic and trust the tower only to give approximate directions that we will evaluate before complying. In short, we trust no one.

Because of the above, if we're flying a *really* blind airplane, we're going to modify our patterns to make up for our lack of visibility and for the probable lack of awareness on the part of other traffic. It's the motorcycle thing in play: paranoia and defensiveness rule!

A caveat is needed here: You can insult a pilot any way you want to, and often he'll laugh it

Robert Bismuth

The unique character of aerobatic airplanes attracts attention even when flying straight and level.

When we're flying the pattern, it helps a lot if we identify where the complainers live and fly wide around them and use reduced power settings while we do it.

off. However, question his ability, or the way in which he flies, and you'll have your hands full. So, the following discourse should be viewed only as a general guide to flying the pattern that some of us use to solve both the traffic and the lack of visibility problems. There are lots of differing opinions about all of this. Truth is, I started flying these kinds of patterns when instructing out of a narrow, 1,900-foot strip, where losing reference to the runway behind the nose for even a second was unacceptable and dangerous. Plus we had very unpredictable traffic, so another eye was needed on final. Everyone has a favorite way to land, and this is just one that I know works.

GEOMETRY AND VISIBILITY

Our first defense against traffic is that our downwind will be in much closer, which it should be anyway. This will keep us away from the other traffic and keep them out where we can see them. Then, we'll adhere to two basic types of patterns from that point on: a short one, which assumes no traffic on final or threats on the runway, and a long one that uses geometry to maintain visibility of both the runway and the traffic ahead on final.

The long approach involves a dogleg downwind that turns about 15 degrees away from centerline immediately opposite the threshold (clear behind you before turning). The reason for the turn is that it gives us more room to turn back onto "final," which will be a line that goes from the center of the numbers at about a 15-degree angle to the left of the centerline. This way, we see the runway on the left side of the nose and final on the right side all the time that we are headed toward the numbers.

Incidentally, I have a personal thing about depending on an engine to get me to the runway. I always assume it's going to quit (I've been proven right five times, four of them in Pitts), so altitude is our

. . . we're flying much tighter patterns so we are flying much shorter distances, sometimes less than a third to a half that of a 172.

Robert Bismuth

Aerobatic pilots have never been known to shy away from attention – and that means people are watching.

friend. The beauty of all aerobatic airplanes is that they slip really well, so maintaining altitude until the last second, when we know we have the runway made before chopping the power, is insurance.

Here's another caveat: aircraft equipped with the Hartzell composite three-blade "claw" propeller don't need the slip, or at least need it very little and only occasionally. That prop is like having a drag chute, so you can point the nose down with no fear of gaining speed and get excellent visibility at the same time. MT three-blades have a little of the same effect, but it's not nearly as pronounced.

It's important to understand that the visibility is controlled by the geometry of the approach—the 15 degrees or so by which we displace final—and the slip is only there to control the glide slope independent of the engine. We're assuming there is no power available. The slip does increase visibility, but that is just a fortunate byproduct.

As we close on the runway and see we're high (the runway numbers are visually moving toward us), we slip (there's an entire book to be written about the nuances right here, but that's for another rant) and then slowly come out of the slip at the end and make one of our usual greasers (yeah, right!). That's the extended approach.

The short approach can be flown power-off from downwind (which we do), or if you trust in the engine gods, use a small amount of power most of the way in (this, in my view, is substituting horsepower for the judgment required to handle an engine failure).

Although many of you probably fly carrier-style, 180-degree turning approaches, we no longer promote those, although for years we did. Having the continual turn from downwind to the numbers works well when you're on a carrier because you know there's no one else on final. In our world, however, if you miss seeing an airplane on final before committing to the turn, you have no chance to clear final again. Your belly is a sweeping blind spot. I personally know two pilots who landed on other airplanes flying that approach and watched another who landed a Pitts a couple hundred feet behind a 152. By some miracle he saw the Cessna's wingtips at the last second and careened off the runway, missing him entirely. For these reasons, add a short base leg to your approach. Roll out on base, clear right, clear left, and only then turn in.

Here again, we're flying a line 15 degrees (or so) off center so we can both watch for traffic on final *and* see the end of the runway so nothing surprises us. Then we slip around the corner (or however you feel like getting there) and commit another grease job.

If you're flying off a towered field, it helps if you go talk to the controllers and explain the how's and why's of your pattern. It's important they know you can't see other traffic as well as others can and that you avoid centerline not only because of traffic, but also because the runway disappears (in a Pitts, it's the airport that disappears).

The bottom line is that safety in the pattern is 100 percent in our hands. We can't expect other pilots to either understand or even begin to compensate for what is a shortcoming in our aircraft, not theirs. Also, forget about the concept of "right-of-way." When it comes to flying, only safety counts, and since we're more capable of solving traffic problems than the other aircraft, let's be the good guy and solve them.

Editor's Note: On this subject, Budd knows of what he speaks: He makes approximately 2,500 Pitts landings a year at what is reputed to be the busiest single-runway airport in the nation. Visit him at www.AirBum.com.

Robert Bismuth

The art of taxiing blind airplanes has aerobatic pilots maneuvering differently on the ground as well as in the air.