Cooperative Control

Getting the Most from ATC

by Matt McDaniel

I heard a pop and the engine started to violently shake. I instinctively went to the fuel selector and power controls, but I was unable to improve the situation. It took several seconds for me to start turning to the nearest airport and to call ATC.

"Approach N12345 is declaring an emergency and requesting vectors to the nearest airport."

From the nearest airport field on my multi-function display, I knew the closest airport was on a 260 heading, but I wanted ATC to confirm that and direct me someplace closer in case I had missed something. As soon as I received ATC confirmation, my next question to them was, "What's the elevation and runway length there?" Again, this was data stored within my avionics that I could have accessed myself; I simply wanted ATC to take some of the load off me.

The quote above was taken from an aviation internet forum where pilots discuss a variety of topics, including their experiences with emergencies and what lessons might be gleaned from them. Only identifying information and syntax were changed. The pilot telling his tale made a successful emergency landing without harming himself or his aircraft.

Air Traffic Control's Mandate

Air Traffic Control (ATC) is not a business, per say. In some places, user fees are assessed to those utilizing ATC services; in other places, such services are totally free of charge. Either way, ATC is not a for-profit enterprise, but a service, generally sponsored by governmental entities, that exists as an aid to public safety. So, while you will likely never see an official ATC mission statement, there is little doubt what ATC's unofficial mandate is: To protect and serve the flying public through skilled and professional management of air traffic in normal, abnormal, and emergency situations.

As with pilots, a controller's typical day at the office is filled with routine operations and predictable outcomes. Also, just like pilots, controllers truly earn their pay when the unpredictable situation arises and the training to deal with it kicks in. Even during the busiest times at the world's most active airports, ATC stands at the ready to deal with the non-routine. They constantly assess their slice of airspace, looking for ways to improve the movement of aircraft between given points. They deal with requests, issue clearances and traffic reports, hand off aircraft to adjacent sectors, and mentally convert two-dimensional radar presentations into three-dimensional mental pictures. They are there to serve us, the pilots, but it is a two-way street. How can we pilots better interact with ATC, encouraging the most from them in return, without asking them to go beyond the confines of their mandate?

Mutually Beneficial

Below are some ideas for getting the most from your interactions with ATC. While what is best for you, as a pilot, is not always what is best for ATC, in many instances, mutually beneficial solutions exist. The way we handle ourselves when dealing with ATC is often the trigger ATC uses to adjust their motivation level to "make it happen."

Be Polite: It should go without saying, but unfortunately that is not necessarily the case. I've heard many unreasonable pilots trade barbs with ATC in a vain attempt to convince a controller to see things differently. As the old saying goes, *you attract more bees with honey than with vinegar.* A little bit of politeness and professional courtesy can go a long way in encouraging ATC to help you out with a better routing, altitude,

or speed. This should begin when checking on a frequency for the first time, even if no special requests are anticipated at that time. Use the facility's name to personalize communications a bit (i.e., "Good Morning Chicago Center, N12345 …" versus "Center, N12345"). Addressing a controller as Sir or Madam shows professional respect and a friendly greeting never hurt anyone. In doing so, you set the tone from the start. Any controller is far more likely to go out of their way to fulfill a request if prior communications have carried such a tone all along.

Use Standard Phraseology: Controllers and pilots alike are all guilty of the occasional non-standard radio chatter. Generally, when it happens, it is mutual and the "relaxed" communiqué is the result of a low workload situation and/or the recognition that often happens when pilots frequent the same routes and airports in routine operations. However, controllers expect pilots to use standard phraseology as much as we expect them to do the same. When pilots make up their own phraseology or try to be too creative in their radio communications, controllers are immediately suspicious. ATC is going to wonder if the pilot is poorly trained, unprofessional, or plays by a different set of rules. Making ATC suspicious of your attitude or capability makes the likelihood of them allowing you to operate "outside the box" very low. Clear annunciation is important, as well. Standardization is moot if ATC simply cannot understand your mumblings on the radio. Be clear, concise, professional, and standardized in your communications.

Be Reasonable: There will always be that pilot who seems to think the whole airspace revolves around his flying machine. If every aircraft on approach to your airport is being asked to maintain 160 knots to the five-mile final, it's a good bet you will be asked to do the same. Requesting a different speed is going to throw a monkey wrench into the controller's traffic flow. If you need
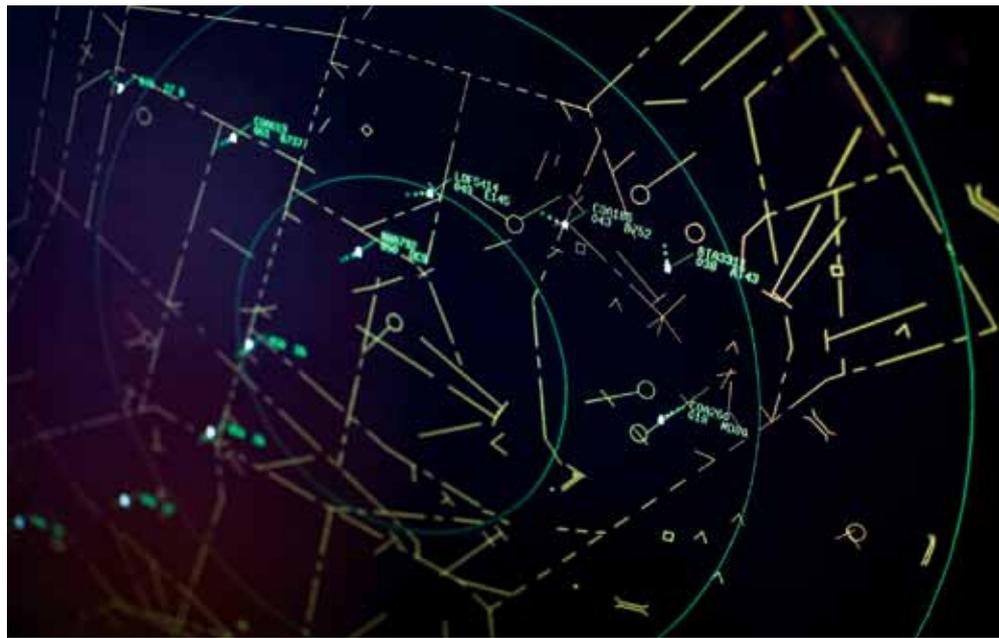
a different speed for operational reasons, be understanding when ATC has to issue you an additional vector to fit you into their flow. This concept applies to a wide variety of situations within congested airspaces. If you need something that differs from the current norm, be reasonable with your requests. ATC will generally go out of their way to accommodate you, but it may require some compromise on your part too.

Listen Up: Nothing will irritate a controller faster than a non-responsive pilot. When ATC has to call you three times to get a response, that is time he's taken away from other tasks on his plate. Of course, this is a two-way street and applies to controllers, as well. On the same note, listen to the overall situation on the frequency. Hearing what other pilots are requesting and being asked to do can provide you with all the situational awareness you need to see the overall traffic picture. Having this picture can provide the information necessary to better filter your expectations and requests of ATC. This can eliminate unnecessary radio calls and lower frequency congestion.

Know You Performance Envelope: A thorough understanding of your aircraft's performance capabilities can be a great asset in dealing

with ATC. It can allow you to take advantage of situations by volunteering information to ATC about what you can or can't do. This can often get you sequenced in or out ahead of the pack. In terms of navigation, ATC only knows your capabilities based upon a generic equipment suffix on your flightplan. Volunteering that you are capable of some specific parameter is often all that is necessary to get a clearance you were hoping for.

Be Specific: If you want something from ATC, be specific with your requests. For example, asking for "a shortcut" is non-specific and might get you a new clearance which is minimally helpful. Requesting "direct ABC" is very specific and gives ATC a more concrete scenario to evaluate and pass judgment. The same can be said of other requests such as altitude and speed changes; let ATC know exactly what you want. Ask for your best-case scenario when it seems like a feasible/reasonable request. You just might be surprised and get a better clearance that you had even hoped.

ATC and CRM

Crew Resource Management (CRM) has been an accepted concept in professional aviation for several decades now. The notion of incorporating all available resources

into cockpit decision making has proven its value beyond measure. As with the example that opened this article, ATC can be an important addition to CRM. While most of our dealings with ATC will be routine in nature, when things start to go wrong, ATC can be a vital resource at your immediate disposal. Don't hesitate to transfer some of your workload to the controller. ATC is generally well equipped to provide critical facility information, emergency services coordination, and vectors for a variety of situations. The key to using ATC as a CRM tool is to be clear and, if necessary, assertive. Let them know exactly what you need and use their skills and training to make your situation better. This can apply to typical flying, like weather avoidance, but is most significant during a true emergency and/or when you have become fuel-critical. Effective communication and utilization of ATC's capabilities when you are facing trouble quickly becomes the equivalent of having an additional crew member in your cockpit. And, when the chips are down, who wouldn't want an extra player on their team? KA

About the Author: Matthew McDaniel is a 22-year professional pilot with a background in airline, corporate, and charter operations. He's owned and operated Progressive Aviation Services, LLC *(www. progaviation.com)* since 2002, specializing in Technically Advanced Aircraft and Glass Cockpit training. He's been actively instructing for 20 years, has logged over 12,000 hours total, 4,500 hours of instruction-given and over 2,500 hours in the King Air and BE-1900. He holds six turbine aircraft type-ratings, and is one of only 26 instructors in the world to have earned the "Master Certified Flight Instructor" recognition five consecutive times. Mr. McDaniel can be contacted at (414) 339-4990 or *matt@ progaviation.com.*