CALLBACK

From NASA's Aviation Safety Reporting System

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ASRS Communication Incidents

Effective communications are an integral part of safe operation in today's National Airspace System. This month's *CALLBACK* focuses on communications-related incidents reported by a controller and several pilots. These include:

- **Misuse of Guard frequency (121.5 MHz)**
- **ATC emergency handling**
- **TFR avoidance**
- **Compliance with charted procedures, and**
- **Clearance clarity.**

Misuse of Guard Frequency (121.5 MHz)

In the U.S., the emergency frequency 121.5 MHz is guarded (monitored) by military towers, most civil towers, FSS's, radar facilities, and many airliners. This frequency is reserved solely for emergency communications for aircraft in distress. A radar controller reported an incident to ASRS in which two air carrier flight crews misused the Guard frequency.

■ *While working the radar position…I heard aircraft X call aircraft Y over the 121.5 emergency frequency. This is not uncommon, but annoying because it comes out the same loudspeaker as the landline calls and, thus, must be fairly loud. There was no response to aircraft X's call. A few minutes later aircraft X again called aircraft Y. I assumed at this point that aircraft Y must have gone no-radio and aircraft X was trying to help locate him. Again, no response…After aircraft X had called aircraft Y for the third or fourth time on the emergency frequency…aircraft Y replied, 'This is aircraft Y.' At this point, aircraft X said, 'We're going to be arriving just a few minutes behind you, so would you hold the van for us so we can get to the hotel?' I keyed up and said, 'This doesn't sound like an emergency.' Both pilots then responded with comments about, 'Where's the Guard Police when you need them?' and 'Must not be a very busy night.'*

Apparently these pilots who were at FL350 and FL390 don't realize that, at those altitudes, their radio range is several hundred miles. Since this emergency frequency is monitored at [most] *ATC facilities, I suspect that their conversation came over the loudspeakers in at least 3 Centers, probably a dozen Approach Controls, dozens of Towers, multiple RCO* [Remote Communications] *outlets at AFSS* [Automated Flight Service Station], *plus hundreds of commercial aircraft cockpits. I suspect someone at one of these locations was busy and was probably distracted, at least momentarily, from their primary safety function. I also suspect that the airline has some other method for inter-aircraft communications. It is events like this that make controllers, and probably pilots, instinctively turn down a speaker that is making noise in the background. A subsequent actual emergency call could go unheard because these* [pilots] *chose the inappropriate means to communicate.*

ATC Emergency Handling

The Air Traffic Control Handbook (FAA Order JO7110.65S, section 10-1-3) instructs controllers to "provide maximum assistance to aircraft in distress." Because of the infinite variety of possible emergency situations, the Handbook does not prescribe specific procedures. Controllers are told to "select and pursue a course of action which appears to be most appropriate" (Section 10-1-1-d).

A B737-700 First Officer's report questioned whether ATC handling of a flight emergency was the most appropriate for the circumstances.

■ *We had a flight control problem and declared an emergency. ATC seemed concerned with our actions as we requested vectors until we ran the checklists and prepared the aircraft for landing. One controller even mentioned that they had another carrier's big arrival rush they were concerned about. We had been vectored to the south of the airport heading north when TCAS announced a traffic alert. We were at 5,000 feet and so was traffic according to our TCAS as we received a RA for a 1,500 fpm descent. We deviated from our assigned 5,000 feet to comply as the other aircraft came within 300 feet vertically. After the RA, we climbed back to 5,000 feet. We crossed over the airport to the north and requested a downwind for Runway XX…We were told to follow another carrier to Runway XX. Our approach speed was faster than normal as was required by the QRH* [Quick Reference Handbook]. *On short final, the other carrier was still on the runway and finally cleared* [the runway] *prior to touchdown. Once we landed and it was safe to clear the runway, there were not many options to clear because there were aircraft lined up on the parallel taxiway south of Runway XX. I was somewhat concerned about the emergency fire crews maneuvering around these aircraft if we did need assistance on the ground. We finally did clear….*

ATC could better assist emergency aircraft and protect airspace and runway environment [if] *priority is given to emergency aircraft. I would have preferred that all traffic was kept clear of us while we worked out our checklists to avoid having to deviate in an emergency. I also would have preferred that all traffic was held or vectored from both landing runways from the time we announced we were ready to land until the time we cleared the runway. Keeping the parallel taxiway clear for us except for the emergency vehicles would have been appropriate, also.*

TFR Avoidance

A Temporary Flight Restriction (TFR), issued by NOTAM, defines an area restricted to air travel due to a hazardous condition, a special event, or other special circumstance.

A Cirrus SR22 pilot doing touch-and-goes at a local airport learned why it's a good idea to contact FSS or receive a DUATS briefing prior to every flight.

ASRS Alerts Issued in January 2009	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	13
Airport facility or procedure	11
Chart, publication, or nav database	4
Maintenance procedures	1
Total	**29**

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January 2009 Report Intake	
Air Carrier/Air Taxi Pilots	2509
General Aviation Pilots	727
Controllers	42
Cabin/Mechanics/Military/Other	364
TOTAL	**3642**

■ *Departed unaware of a NOTAM restricting flights within a 30-miles radius of the ZZZ area, which encompasses ZZZ1 near the 25-mile mark.* [I] *did not realize nor had the forethought to check NOTAMS or TFRs that may be in effect. My intentions for the flight were touch-and-goes at ZZZ1. After departure, I was immediately contacted by FBO via radio who had been contacted via telephone by the TSA to notify the aircraft taking off to land immediately. I was squawking 1200, and not a discrete transponder code that I would have been given had I checked the TFR and contacted ZZZ TRACON as instructed by the NOTAM or TFR. This was clearly my mistake. After being notified of the TFR, I immediately landed on Runway 29. I was no more than a ½ mile radius from the center of the airport, but now realize the severity of the incident. Upon landing, I exited the runway and shut down on the taxiway to await instructions from* [the] *TSA inspector.*

The entire situation was an unintentional yet avoidable mistake made…by taking for granted my normal procedures because I was at my local airport practicing landings. I know that regardless [of] *where I am, it is a mistake to take off anywhere without reviewing all NOTAMs, TFRs and all relevant information.*

As this pilot learned, it's easy to become complacent about NOTAMs and TFRs, particularly when flying in familiar airspace or over short distances.

Compliance with Charted Procedures

Standard Instrument Departure (SID) charts are designed to expedite clearance delivery and to facilitate transition between takeoff and en route operations. A General Aviation pilot described a "weighty" reason for failing to comply with a SID. Our reporter was flying a Cessna Skymaster on an IFR flight plan.

■ *…The SID from ZZZ1 requires a climb to 1,800 feet, runway heading, then a turn to the ZZZ2 VOR, climbing to cross at or above 7,000 feet, then assigned route. When flying IFR, I typically concentrate on one segment at a time, that is, for this departure, climb to 1,800 feet, runway heading, then the turn to the VOR, etc. My problems began when I attempted to locate the next segment, or the routing segment. I couldn't locate it on my chart, and that caused a great deal of confusion. My initial clearance included a climb to 8,000 feet, yet it appeared I was held to 1,800 feet. When I asked Departure for higher, I was again cleared to 8,000 feet, and the controller asked if I had been restricted to 1,800 feet. I replied no, that I was following the SID. He advised me to climb to 8,000 feet via the ABC VOR, and if I was unable to cross at or above 7,000 feet to hold as depicted. I immediately told him I was entering the hold, and he responded to my call…As I took the published SID from my lap, I immediately saw the routing section that had been obscured under my protruding stomach and shirt. I was so embarrassed that I didn't tell the controller what the problem was…Please note that the controller involved was professional and didn't chew me out for not having the complete SID at my disposal….*

The short-term answer to my problem is to use a chart clip instead of lap to hold charts…And the long-term answer is to lose a bit of weight (my abs became slabs 20 years ago).

Clearance Clarity

A corporate pilot suggests a method of simplifying ATC clearances that is more direct than current practices, and involves less navigation complexity.

■ *I am a former airline pilot, now flying in corporate aviation…I have many times encountered an ATC clearance problem that just simply does not have to exist. We are often given a clearance that reads something like, 'You are cleared direct ABCDE intersection, direct FGHIJ intersection, XXX VOR 123 degree radial to KLMNO intersection, then flight plan route.' Now, while supervising fueling, loading the baggage, briefing the passengers and setting up the cockpit for departure, we are forced to dig out charts that we might not normally have out, then try to find the VOR in question and trace out the radial, only to find that the given radial is a direct route from FGHIJ to KLMNO. If we have the equipment to proceed direct to the first two intersections, we obviously have the equipment to proceed directly to the third. Why not just give us direct to all three? Why confuse the issue by throwing in a VOR and radial, when both are completely unnecessary and serve only to create confusion?*

I have had this happen many, time times all over the country, from Teterboro to San Francisco. Often the VOR is not even on our route, but one of its radials just happens to line up with the two intersections in question…If it is a direct route between intersections, just give us direct….

Editor's Note: This issue of *CALLBACK* is dedicated to the memory of Donna Fife, the ASRS Report Production Coordinator, who held key business and report production positions in the NASA ASRS office for 23 years. Donna's superlative service to the ASRS program came to an untimely and tragic end on January 19, 2009, when she was struck by a car and killed in her San Jose, CA neighborhood.

Donna was the primary ASRS contact for many pilots, mechanics, controllers and others in the aviation community needing expedited return of their report's identity strip, or for those who encountered a problem with filing their report online. When Aviation Safety Action Programs (ASAP) began sending their reports to ASRS, Donna became the primary ASRS operational contact for ASAP managers and staff, as well.

The ASRS staff will always treasure the exceptional service that Donna Fife rendered the program, and the gifts she left with us of friendship and caring.