

Another war story

By Volker Stuhlsatz

It has been more than twenty years since IFR traffic sometimes deviated from the Berlin Corridors into the restricted airspace of the old German Democratic Republic when encountering severe line squall CB activity.

In those days, there were no direct ATC communication or coordination possibilities with our East German colleagues, but these intentional airspace infringements due to "build ups" were obviously the lesser of two evils at the time and fortunately did not have any further consequences.

More recently a younger colleague of mine flying a light aircraft learnt about the possible consequences of an infringement, in the same part of the country a couple of thousand feet lower, under VFR. He was involved in an unintentional and brief infringement of restricted airspace not far from a control zone (CTR) and in close proximity (only one nautical mile) to a compulsory VFR Reporting Point. Despite measuring only one and a half nautical miles in diameter, this rather small exclusion zone has proved to have great potential for infringements because of its problematic location. In my colleague's case, he had been distracted by receiving important traffic information, which required an attempt to identify a possible conflict whilst looking directly into sun.

This incursion of a couple of hundred feet for maybe less than one nautical mile, without any safety related outcome was thoroughly pursued by the appropriate legal authorities. Two questions came to my mind. Firstly is such a tough legal reaction a useful way of helping counter the increasing number of airspace infringements and secondly, could this happen to me too? I already knew the answer to the second question! - Yes it could - it already has on at least two occasions. The answer to

the first question is not so simple, but certainly over-use of the legal sanction could promote the undesirable habit of 'radio silence' as a means to reduce the availability of evidence for both identification and a possible prosecution.

Anyway, it seems to be rather a question of "when" rather than "if" it is also going to happen to another GA pilot. The idea of VFR freedom is not always associated with boundaries to that freedom. It can, and sometimes does, all go wrong, and can do so quite quickly.

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To me, there seems to be many contributions to the current rise in GA airspace infringements in my part of Europe. Certainly, having sophisticated GPS navigation systems on board does not automatically mean that one is using them appropriately. A great variety of GPS equipment exists and has quite a range of different interfaces and menus. There are some flight schools who manage to have a different GPS installed in each of their aircraft.... Some pilots bring their own GPS devices but neglect the basics and find that the batteries are fading on the way home. According to Mr. Murphy, this will probably happen at a time you need your

GPS most. I have even seen what I might describe as 'GPS Techies' juggling simultaneously with three GPS systems operating simultaneously - the one fitted to the aircraft, a personal hand held and a brand new PDA with GPS software. Confusion almost guaranteed!

Of course, many of us recognise that a negative side effect of GPS is that basic navigation skills may well be getting rusty - or perhaps are never really mastered properly from the start, if our





Another war story (cont'd)

license has been gained since GPS arrived on the scene. I heard recently that the effect of an unserviceable GPS system recently led to a Club plane having a prolonged lag only in the local traffic pattern. Even with in flight visibility which was almost unlimited, no one dared to leave home base without a serviceable GPS.

Imagine the possibility that we might have suffered from a long involuntary absence from flying, perhaps due to bad weather, winter time, professional or private engagements or just financial constraints. Time pressure might have led to a sort of abbreviated flight preparation and last year's VFR ICAO chart still looking new (as they haven't been used so far) and therefore considered to be somehow 'up to date' - after all they are at least from this century..... GPS start-up messages are usually quickly confirmed (what was that data base expiry date again?). The long and "user friendly" latest NOTAM list information is on board (in case of an official check it is always good to have the papers on board). Unfortunately we did not have the time to read them prior to take-off, or if we did we didn't understand them. Are we still planning or flying and prepared for it?

In the GA community there is sometimes a lack of appreciation of how to obtain an airspace crossing clearance from ATC. Perhaps not making the request early enough or maybe with poor R/T practice and particularly insufficient proficiency in standard ICAO language. Sometimes, too, GA pilots feel that their 'failures' attract a 'negative attitude' from ATC. With colourful moving map displays, some pilots are tempted to fly far too close to restricted airspace lateral boundaries, getting into interesting discussions with ATC as to where the boundaries are. And a breach of a vertical boundary defining the base of controlled airspace is eas-

ily made if an incorrect altimeter sub scale setting is selected.

A cross track wind component stronger than predicted or constant "interference" from other occupants of your aircraft, especially other pilots, has often created infringement potential. Once FIS called "descend immediately!" having noticed a near miss about to happen any moment. It turned out later that this part of the Class 'C' Controlled Airspace was delegated at that time of the weekend to exclusive glider use and, in the opinion of the controlling ANSP, it is not legally possible to have gliders and other VFR traffic operating in the same airspace at the same time.

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Differences in air law between different European countries can add more complications. A slightly premature use of the most liked and used 'DIRECT TO' GPS function after a VFR night departure provided us the other night with a free lesson on the national air law of our near neighbour which forbids VFR night flying. Luckily the aircraft engine didn't notice the sudden change in the legal situation and we were able to continue and safely exit the restricted area with only a verbal admonishment from the controller.

Late requests for a VFR crossing clearance, sometimes, but not always, the result of a busy frequency often lead to a "stand-by" from ATC. The waiting which then follows sometimes also leads to infringements. Maybe the aircraft track is simply continued in ex-

pectation of the requested clearance. Probably, technical solutions on board the aircraft like area proximity warnings are only of limited help due to the many nuisance alerts (perhaps flashing warning lights or instrument flags) which pilots routinely see a lot of and consequently tend to disregard.

Lack of situational awareness in relation to restricted airspace can occur at times of high cockpit workload, maybe due to challenging weather conditions, it may follow misinterpretation of charts, inadequate timing of clearances from ATC or just misunderstandings.

Perhaps ANSPs could help by looking at possibilities to modify airspace design and structures where repeated airspace infringements occur? In other words a 'hotspot' response similar to the approach successfully used to reduce runway incursions through the action of Local Runway Safety Teams?

Automated FIS could provide the activation status of special airspace and more resources devoted to FIS around major TMAs could provide help to VFR pilots with traffic information and airspace de-confliction advice. Maybe there would be a benefit in improved availability of updated weather information to VFR flights whilst airborne. Airspace awareness could be improved through information briefing campaigns making use of the internet. Maybe there is also an opportunity to enhance proficiency checks and periodic refresher training for PPLers so that more attention is given to navigation and radio telephony communication skills.

Possible consequences of airspace infringement range from the presence of high performance aircraft too close for comfort to one's own aircraft, a loss

of separation, a disruption of flight operations with exposure to military hazards like firing and radiation, up to a mid air collision in the worst case. Consequences may also sometimes follow on the ground. There could be environmentally sensitive areas perhaps with the risk of serious hazard to vulnerable animals.

So we can conclude that improved navigation techniques and skills, whether map reading, radio navigation or GPS, the continuous use of transponders by VFR traffic and their continuous monitoring of FIS/ATC frequencies with the application of good radio telephony skills could all be important parts of the solution.

However, to deliver this, we need to have acceptable flight training standards amongst PPL Flying Instructors. A flight preparation offered by a Chief Flying Instructor at a local school to a touring group of his customers recently suggested routing right through an active parachute dropping zone, just outside the home base AT. A similarly poor example is teaching and demonstrating the use of A7700 as the international VFR squawk instead of A7000. And the still-encountered "old school" method of flying silently and invisibly with the transponder set to 'Off' or only to Mode A does not fit into our modern ATM world. And just when I think I have heard them all, it was suggested to me other day that it was possible "to fly exactly in the division of altitude between a CTR and a TMA at 2,500 feet", as this exact altitude would belong to neither of them....Unfortunately, there are too many people who believe in this kind of "war story".

Please try to remember some of the experiences of others before you... and have a safe and infringement-free flight with happy landings. 