Case Study Comment 1
by Richard (Sid) Lawrence

Where to start with this one? There are clearly a 'multitude of sins' to consider – over eager/inappropriate management, poor supervision, an absent OJTI, high workload, endemic call sign allocation issues, inadequate hearback, distraction…the list goes on.

However, with my EUROCONTROL Call Sign Similarity Project Manager's hat on, I'll stick with the call sign related issues as these are at the heart of the problem. Clearly nobody in the military set up realised that by re-using the same call sign, albeit with a different crew/pilot, this might induce human factor-related misunderstandings. Comparison with civil ops is, in some respects, inappropriate. Civil flight schedules and associated commercial flight numbers and ATC call signs are generally allocated before the start of each IATA summer and winter season. In the military, whilst some air transport type operations may involve an element of scheduling, the planning of operational training sorties is a much more dynamic affair. A typical flying programme is probably published the day before at the earliest. In some air forces, 'training' (instructor and student) pilots are allocated an individual call sign which they use on every training flight – this lets ATC and aircraft operating authorities know who exactly is flying which aircraft. But whilst on 'training' squadrons this makes life a bit easier, operational training sorties tend to use different call signs every day.

Short call signs such as A65 are easy to pronounce but they are easy to mix up too. As an aside, in the civil world ICAO Doc 8585 recommends that call signs ending in 5 or 0 should be avoided to lessen the possibility that they may be mistaken for headings and flight levels. It would be fair to say that adherence to this practice is, shall we say, at best 'patchy' and at worst ignored. So if civil operators don't do it, we can hardly expect the military to consider doing this either.

We also can't expect the military operators to conform to the EUROCONTROL Call Sign Similarity "Rules" that we use as the basis for detecting and de-conflicting similarities embedded within civil aircraft operators' flight schedules using the EUROCONTROL Call Sign Similarity Tool (CSST). These "Rules" – although it's best to consider then as conventions rather than "rules" per se – describe the main types of 'similarity' that can lead to call sign confusion; they also describe the various recommended call sign suffix formats – numbers and letter – that can be adopted, e.g. nn, na, nnn, nna, naa, nnnn, nnna, nnaa.

The question you might ask is why did the squadron have to use the same call sign numbers again for a different flight a few hours later? After all there are plenty of other combinations available that could have removed any potential confusion in the pilot's mind at a stroke. Now I'm not a human factors specialist and I won't pretend to know the inner most workings of the human brain (least of all my own so I'm sometimes told!!) but, intuitively, it just doesn't seem sensible to re-use a call sign when there are plenty of other number combinations to choose from!

As in the civil world where an aircraft operator has a specific R/T designators, e.g. British Airways' use of 'SPEEDBIRD', the addition of a call sign designator prefix for military flights, e.g. "SAXON" might help to better differentiate call signs. So instead of A65 and A32, we could have SAXON 65 or SABRE 32. Of course the same principle of not re-using the same call sign within a matter of hours can still apply but the addition of a call sign prefix might just help to break previous mental connections.

A RECOMMENDATION

Just as in civil operations, it is important that military authorities try to avoid/reduce the risk of call sign similarity/confusion not only in their own operating environment but also within the mixed civil/military environment that is commonplace. Accordingly, I would recommend that the military aviation authority reviews its call sign allocation policy, perhaps coming up with a version of its own call sign similarity "rules" that could be applied service-wide.

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