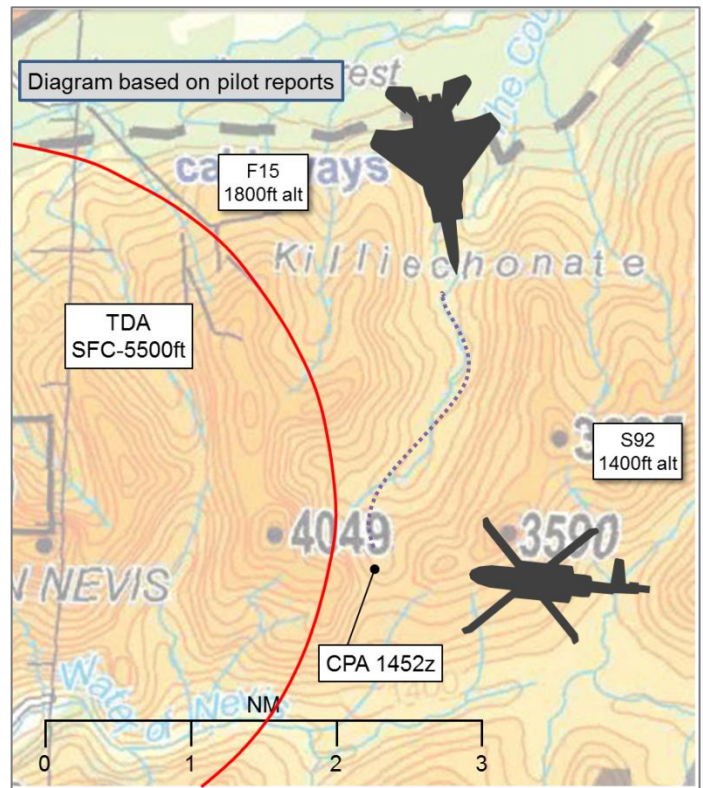


AIRPROX REPORT No 2015121

Date: 3 Aug 2015 Time: 1452Z Position: 5647N 00045W Location: 7nm E Fort William

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Sikorsky S92	F15
Operator	Civ Comm	Foreign Mil
Airspace	Scottish FIR	Scottish FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Provider	ARCC Kinloss	Nil
Altitude/FL		500ft agl
Transponder	A,C,S	A,C,S
Reported		
Colours	White and Red	Grey
Lighting	Landing, nav and HISLs	Position lights, anti-colls
Conditions	VMC	VMC
Visibility	35km	
Altitude/FL	1400ft	1800ft
Altimeter	QNH (1001hPa)	Rad Alt
Heading	255°	160°
Speed	110kt	400kt
ACAS/TAS	TCAS II	Not fitted
Alert	TA	N/A
Separation		
Reported	100ft V/500m H	500ftV/1nm H
Recorded	NK	



THE S92 PILOT reports that he was on a search and rescue tasking in the Ben Nevis area when he encountered 4x F15s as he entered Glen Nevis to drop off the mountain rescue team. The helicopter was operating with 4 crew members who were all looking out and spotted the F15s at the same time. The first of the four jets rounded a mountain in the 1 o'clock position and appeared to be manoeuvring rapidly towards the helicopter. The TCAS issued a TA but, due to the height of the helicopter (below 1000ft agl), RAs are inhibited. He made a positive effort to avoid the flight path of the fast-jets by rolling towards the high ground and entering autorotation. He thought that the location in which he encountered the F15s was within the temporary danger area (TDA) that had been set up by ARCC Kinloss that morning¹ and which was in place from 0950z until 1756z. He reported that he was listening out on the VHF low-level common frequency 135x475mhz and had transmitted his position on that; on other occasions this had been successful in letting military fast-jets know where he was, and he wondered whether the American crews were aware of it.

He assessed the risk of collision as 'High'.

THE F15 PILOT reports that he was part of a formation that flew 3 sorties that day, each time returning to base to refuel, but not to go back into the ops building to re-brief. When the sorties were planned, the pilots were aware of a TDA in the Ben Nevis region that was in place until 1400z. Sometime during the day, whilst they were refuelling, they were informed over the radio that the TDA had been extended and would still be in place when they were in the area for this sortie. However, the pilots had in any case planned the route to avoid the TDA by crossing a saddle to the east of the

¹ TDAs are set up to protect aircraft operating on SAR missions.

TDA, so they did not need to amend their navigation. For the sortie in question, the 4xF15s were operating at 500ft agl, each aircraft in approximately 1-2nm trail. The aircraft crossed a mountain saddle east of the NOTAM'd avoidance area. The ridge crossing was made on a southerly heading and apexed at 3500ft AMSL, which was 600ft agl. As the lead aircraft crossed the ridge, he spotted a westbound rescue helicopter in the valley below and to the east. He levelled off at approximately 1800ft agl (above the valley floor) to avoid the helicopter. This resulted in him passing 500-700ft above the helicopter and about 1nm laterally. He simultaneously informed the rest of the formation, and each trailing aircraft ensured they levelled off 1000ft above the helicopter during their ridge crossings.

He assessed the risk of collision as 'Low'.

KINLOSS ARCC reports that a review of the records for this incident showed that the TDA was put in place for SAR Ops in the Ben Nevis region at 0954 with a planned expiry time of 1400. The SAR helicopter remained in the area until 1307 when it returned to base for a refuel, returning to the area shortly afterwards. At approx 1330 the TDA was extended until 1800. At 1451 the S92 pilot asked whether the TDA had been extended and was told it had, at 1452 he reported that 3 x fast jets had just flown overhead, but that he would call on the telephone later to give further details. The ARCC does not have radar, or access to radio frequencies, other than the HF frequencies used to coordinate SAR helicopters on. They have access to a stand-alone CADS terminal which they use to input TDA and SAR sortie information if their primary coordination duties allow. They also check CADS to look for conflicts, using D&D or LARS units as a means to contact any aircraft that has planned to fly in the vicinity of the SAROps. This is in addition to informing D&D of every SAR sortie, with D&D transmitting a Sécurité message as a minimum de-confliction measure, or TDA information if applicable. On this day, there was a total of 21 SAR incidents so it was unlikely that there would have been the spare capacity to view CADS after the initial setting up of the TDA, and the ARCC would therefore rely on other users to hear and comply with the D&D broadcasts and NOTAMs.

Factual Background

The weather at Lossiemouth and Glasgow was reported as:

METAR EGQS 031450Z 30005KT 9999 BKN045 19/13 Q1001 BLU NOSIG
METAR EGPX 031450Z 20008KT 9999 SCT032 BKN044 18/12 Q1003

There were two NOTAMs detailing the TDA, the first notified the end time as 1400:

A) EGPX **B)** 1508030954 **C)** 1508031400

E) TEMPORARY DANGER AREA. OWING TO THE EMERGENCY AT BEN NEVIS A TEMPORARY DANGER AREA TO BE KNOWN AS EG D699X HAS BEEN ESTABLISHED BY A CIRCLE RADIUS 3NM CENTRED ON 5648N 00502W. TO ENSURE THEIR OWN SAFETY AND TO AVOID INTERFERENCE WITH CONTROL AND SAR ACTIVITIES, PILOTS ARE URGENTLY REQUESTED NOT TO FLY IN OR NEAR THE AREA WITHOUT THE PERMISSION OF AERONAUTICAL RESCUE AND COORDINATION CENTRE (EMERGENCY CONTROLLING AUTHORITY) TELEPHONE 01309 678302 / 01309 678303. PILOTS ARE FURTHER WARNED THAT ACTION MAY BE TAKEN AT ANY TIME TO IMPOSE RESTRICTIONS OF FLYING REGULATIONS UNDER ARTICLE 161 OF THE AIR NAVIGATION ORDER 2009. ATC UNITS CLOSE TO THE INCIDENT AREA ARE REQUESTED TO ADVISE AIRCRAFT ON THEIR FREQUENCIES OF THE CONTENTS OF THIS NOTAM.

F) SFC **G)** 5500FT AMSL

The second extended the TDA until 1800:

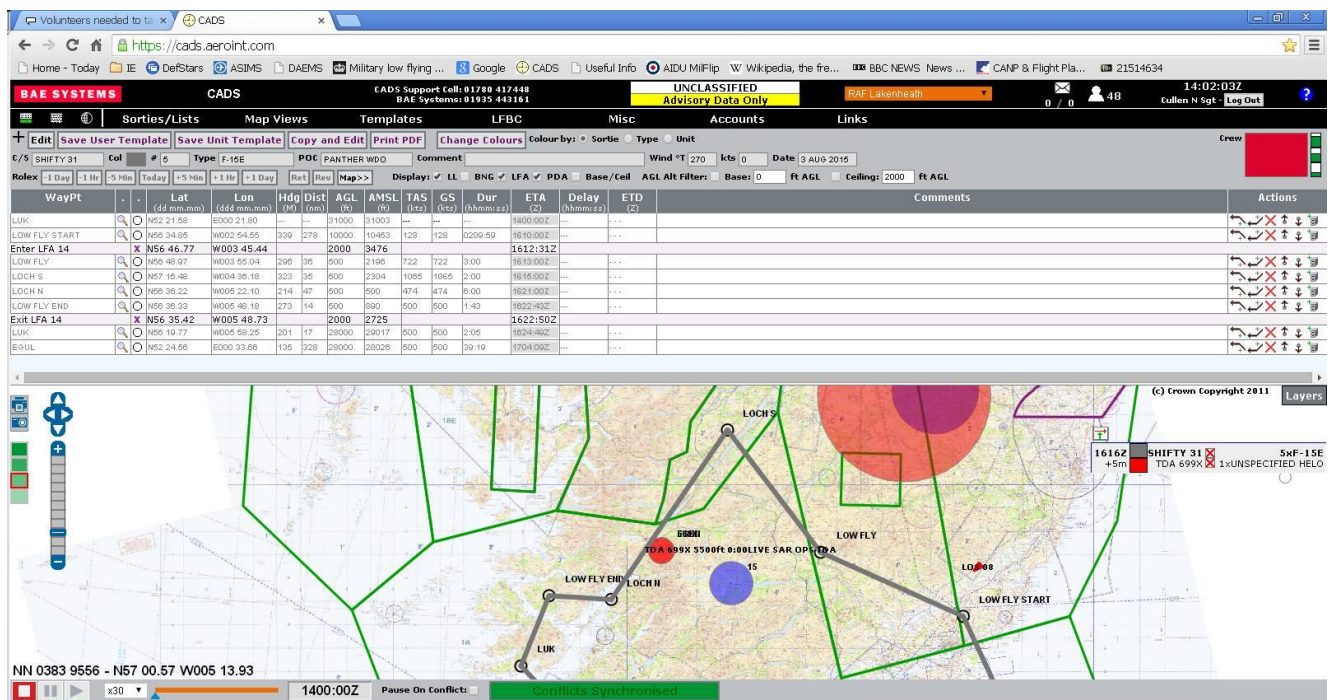
A) EGPX **B)** 1508031332 **C)** 1508031800

E) TEMPORARY DANGER AREA. OWING TO THE EMERGENCY AT BEN NEVIS A TEMPORARY DANGER AREA TO BE KNOWN AS EG D699X HAS BEEN ESTABLISHED BY A CIRCLE RADIUS 3NM CENTRED ON 5648N 00502W. TO ENSURE THEIR

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F) SFC G) 5000FT AMSL

A screenshot CADS shows the route that the formation planned to fly was just outside the TDA, although, because the intended routing was within 2nm of the TDA, CADS highlighted it as a conflict. Low Flying Ops Sqn were able to confirm that the route for the F15s was put into CADS at 1254 and, at that time, CADS would have shown that the TDA would not be active after 1400.



Analysis and Investigation

UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard². The AIP states that:

The regulations make it an offence to fly within the designated Restricted Area (Temporary) without the permission of the appropriate Emergency Controlling Authority³.

Comments

USAFE

The F-15 formation was aware of the extension to the operating times of the TDA, which was centred on a point about 1nm WNW of Ben Nevis, and planned to avoid the area to the east by crossing the saddle between peaks depicted 4049 and 3950, which they did subsequently. The flight lead recalled that on the day there was broken cloud in the area with bases of 4-5000 ft and

² SERA.3205 Proximity.

³ AIP ENR 1 General 5.1.2.2

furthermore, the peak of Ben Nevis was obscured which meant that even without the TDA it would have been avoided in order to remain under VFR. It appears most unlikely that the Airprox occurred within the TDA.

The F-15 formation learned of the extension of the TDA just prior to their departure; however, had they departed earlier, knowledge of the change would have relied on them receiving the information by radio, perhaps when already low level in Scotland and consequently, with a good chance of not receiving the call. In the interest of flight safety the manner and timing of informing relevant aircrew of critical changes in good time should be reviewed.

Summary

An Airprox was reported on 3 August 2015 at 1452 between an S92 and a formation of F15s. The S92 was on a SAR mission with an associated TDA. The F15s were aware of the TDA and planned their routing to go around it. As they flew over a saddle in the mountains, the lead aircraft became visual with the S92. Both pilots took avoiding action.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft.

The Board first discussed the actions of the F15 pilots and focused initially on whether they were inside or outside the TDA. Without radar replays, the Board could not say for certain where they flew in relation to the TDA but, given the certainty with which the F15 crews and USAFE had reported their avoidance of the TDA, and the associated weather conditions which were obscuring Ben Nevis, the Board thought that in all probability they were indeed just outside. The Board then discussed the wisdom of flying so close to the edge of a TDA when live SAROps were in force. Some members thought that the F15 crews would have been better served by including a margin to avoid the TDA given that it was quite feasible, as in this case, for aircraft involved in SAROps to be positioning beyond its boundaries whilst being focused on SAROps tasks. Other members argued that the 3nm radius of the TDA was only there to protect the SAR crews during actual SAROps activities, and that another significant margin was not needed just to cover their flights to position themselves. The Board then queried the fact that the CADS routing showed the F15s going west of the TDA when they reported that they had planned to go to the east. The USAFE advisor informed the Board that the decision to change the routing had been made in flight, after CADS entry, due to needing to avoid Fort William and the low-cloud that was over Ben Nevis. The USAFE advisor also assured the Board that the F15 crews were aware of Scottish VHF common frequency, although it was not known whether this particular formation were listening out on it at the time and, even if they were, they may have been obscured from the S92 by the high ground anyway. Finally, the Board noted that, having flown over the top of the saddle, the lead pilot had spotted the S92 and had taken appropriate avoiding action whilst also ensuring that the rest of the formation also gave it a wide berth.

Turning to the S92, the Board noted that its pilot thought he was within the TDA and was therefore probably startled by the appearance of the F15s in what he thought was protected airspace. A helicopter member opined that the S92 pilot's avoiding-action autorotation and roll towards the mountain was quite severe, indicating that he thought the F15s were quite close and that swift action had been required. However, it appeared to the Board that, in reality, the F15s were likely not below 500ft as they crossed the saddle and the Board thought that the separation was therefore probably greater than the S92 pilot estimated at the time given that the F15s' trajectory would probably also have 'ballooned' as they went over the saddle. The Board noted that in broadcasting on the VHF common frequency the S92 pilot was doing his best to advise other pilots of his positioning; assuming that the F15 pilots were on this frequency, it was just unfortunate that they had not heard his transmissions this time.

In determining the cause of the Airprox, the Board quickly agreed that this had been a late sighting by both pilots, albeit that the geography probably prevented either pilot seeing the other any earlier. Without a radar reply, the exact separation of the two aircraft could not be known, and the Board

therefore looked at the pilots' estimations of the separation. Noting that the estimates differed, the Board thought that the S92 pilot had probably been startled by the sudden appearance of the F15s when he was not expecting them, and therefore it was likely that he perceived the F15s to be closer than they were. The Board noted that both pilots had taken avoiding action; therefore, the Board assessed the risk as Category C, in their opinion effective and timely action had been taken to avoid a collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by both pilots.

Degree of Risk: C.