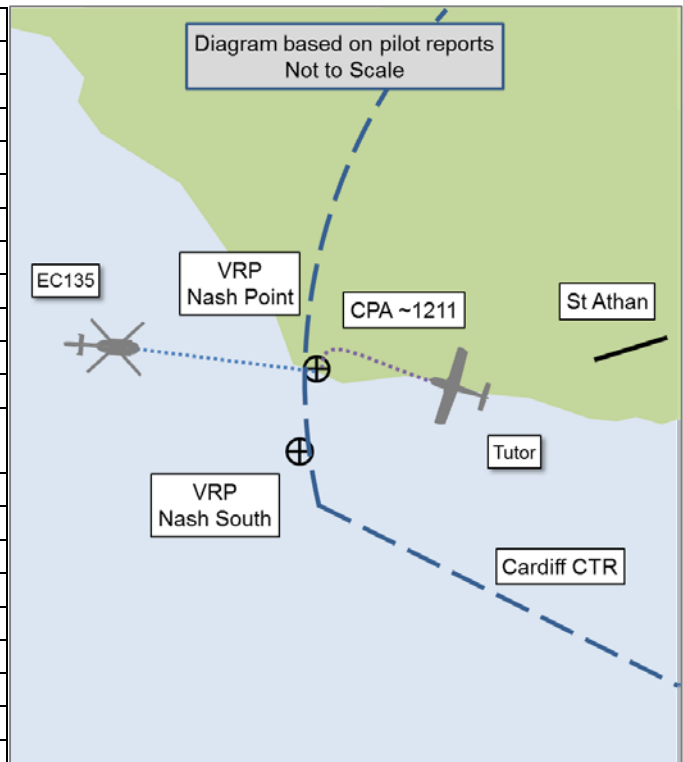


**AIRPROX REPORT No 2015136**

Date: 13 Aug 2015 Time: 1211Z Position: 5124N 00333W Location: Nash Point VRP

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

Recorded	Aircraft 1	Aircraft 2
Aircraft	EC135	Tutor
Operator	NPAS	HQ Air (Trg)
Airspace	Cardiff CTR	Cardiff CTR
Class	D	D
Rules	VFR	VFR
Service	On handover	Aerodrome
Provider	N/A	St Athan Tower
Altitude/FL	NK	NK
Transponder	State/Modes	A, C
<b>Reported</b>		
Colours	Black/yellow	White
Lighting	HISL, nav, landing	HISL, nav, landing
Conditions	VMC	VMC
Visibility	10km	10km
Altitude/FL	1200ft	1300ft
Altimeter	QNH (1015hPa)	QFE (1008 hPa)
Heading	100°	100°
Speed	120kt	80kt
ACAS/TAS	TAS	TAS
Alert	TA	None
<b>Separation</b>		
Reported	50ft V/0.5nm H	500ft V/0.5nm H
Recorded	325ft V/0.22nm H <sup>1</sup>	



**THE EC135 PILOT** reports routing inbound to St Athan and approaching Nash Point VRP from the west when he was passed details of traffic converging from the east (the Tutor) at approximately the same level. He was then instructed to contact St Athan Tower, before he had visual contact with the traffic. Shortly afterwards, he heard a TAS audio alert stating 'Traffic, 12 o'clock, 1 mile, same altitude'. He saw the traffic at approximately 0.5 miles in the half-past-eleven position, 50ft above and converging. The traffic then carried out a 180° left-hand turn in front of him, and so he took avoiding action by turning right and descending. He later reported the incident to St Athan ATC by telephone.

He assessed the risk of collision as 'High'.

**THE TUTOR PILOT** reports conducting an Air Experience Flight (AEF) sortie from St Athan, remaining within the constraints of the Local Flying Zone (LFZ) due to weather. He was proceeding from the visual circuit to the initial point for RW08 at 1300ft QFE, which is standard procedure to break up a period of constant circuits, and also to point out the RW08 initial point to the cadet. The 'local controller' in ATC informed him of the St Athan-based Police helicopter proceeding inbound to the airfield, still operating on the Cardiff Approach frequency. On approaching Nash Point, which is the VRP beside the 4nm initial point for RW 08, he made visual contact with the helicopter about 1-1.5nm ahead and began his left turn inbound for initials. He simultaneously made an RT call to St Athan Tower, informing ATC of his position and intention to proceed from initials inbound to RW08. At that time he was expecting the helicopter, as the joining traffic, to give way to him because he was already established in the local airfield environment and operating on the Tower frequency. Due to the proximity of the helicopter, and because he was unsure whether the helicopter crew had seen him or were aware of his presence, he elected to maintain 1300ft QFE rather than descend to 800ft QFE

<sup>1</sup> The Cardiff Radar controller's report contained separation information obtained from a recording of the Cardiff Radar.

for the circuit iaw the local VFR joining procedure for light aircraft and rotary-wing traffic. He judged that this would allow him to maintain a vertical spacing of 500ft from the helicopter should it continue its course and arrive at Nash Point also at 800ft. As he completed the turn inbound to the runway, he looked behind to check the helicopter was where he expected it to be, having not altered its course, some 500ft below and 0.5 mile behind. Having established that he was now ahead and clear, he then accelerated to 120kt, descended to 800ft QFE, and proceeded to the 2nm initial point. He subsequently learned that the helicopter Captain had submitted an Airprox report.

He assessed the risk of collision as 'Low'.

**THE CARDIFF CONTROLLER** reports that the EC135 was inbound to St Athan under VFR and in receipt of a Basic Service, routing via Nash Point not above 1500ft (QNH 1015hPa) under control of Cardiff Radar. The Tutor was operating within the St Athan LFZ between ST Athan and Nash Point, not above 1300ft (QFE 1008hPa) under control of St Athan Tower. The controller advised St Athan of the inbound helicopter and St Athan advised the Cardiff controller of the Tutor a little later, and that the Tutor pilot had been informed of the EC135. The controller issued Traffic Information to the EC135 pilot as he approached Nash point from the west, with the Tutor approaching Nash Point from the east. The EC135 pilot acknowledged the Traffic Information and was transferred to St Athan Tower. At the time of transfer, the aircraft were separated by 150ft vertically and 2.54nm horizontally. The aircraft were observed continuing to converge at Nash Point.

## Factual Background

The weather at St Athan was recorded as follows:

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METAR EGDY 131150Z 05012KT 9999 BKN015 OVC037 18/14 Q1014 WHT
METAR EGDY 131250Z 06012KT 9999 VCSH BKN015 OVC037 18/15 Q1014 WHT
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## Analysis and Investigation

### UKAB Secretariat

The EC135 and Tutor pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard<sup>2</sup>. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right<sup>3</sup>. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation<sup>4</sup>.

## Comments

### HQ Air Command

The Tutor pilot clearly felt comfortable throughout this incident. He regularly informed ATC of both his intentions and actions and was visual with the EC135. Indeed his remaining at height was a purposeful decision to ensure separation. He would also have been expecting Cardiff ATC to work with the EC135 pilot to provide inbound separation, or for the EC135 pilot to be on the St Athan frequency. The EC135 pilot may have also been expecting more guidance from ATC to provide sequencing and, although it is the EC135 pilot's responsibility to conform to the aerodrome traffic pattern, it is debatable whether the Tutor at 4 miles positioning for initials was still in the traffic pattern. Furthermore, the decision by the Tutor pilot to turn left to intercept the initials point across the path of the EC135 may not have been appropriate. However, both aircraft were in a visual environment, saw each other and took avoiding action before CPA.

## Summary

<sup>2</sup> SERA.3205 Proximity.

<sup>3</sup> SERA.3210 Right-of-way (c) (1) Approaching head-on.

<sup>4</sup> SERA.3225 Operation on and in the Vicinity of an Aerodrome.

An Airprox was reported when an EC135 and a Grob Tutor flew into proximity at about 1211 on Thursday 13<sup>th</sup> August 2015. Both pilots were operating under VFR in VMC, the EC135 pilot not in receipt of a Service whilst he was being handed over from Cardiff Radar to St Athan Tower, and the Tutor pilot in receipt of an Aerodrome Control Service from St Athan.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings (which did not show either aircraft), a report from the Cardiff air traffic controller and a reports from the appropriate operating authority.

The Board first considered the controller's actions and noted that the Cardiff Radar controller had passed Traffic Information to the EC135 pilot on the Tutor approaching Nash Point from the east. Members commended the Cardiff controller for doing so, despite the EC135 pilot only being under a Basic Service. Similarly, the Cardiff controller had also given Traffic Information to the St Athan Tower controller on the EC135 approaching Nash Point from the west, who was then able to pass it on to the Tutor pilot.

Turning to the pilots' actions, the EC135 pilot had been passed Traffic Information on the approaching Tutor and had received a TAS alert. Members opined that he could then have requested further Traffic Information from the Cardiff controller rather than switch to St Athan Tower or, if he was sufficiently concerned by its proximity, he could have carried out an orbit to provide spacing on the Tutor, which he was aware was also inbound to Nash Point. On the other hand, some members also pointed out that, by switching to St Athan Tower frequency, he was then in a position to ascertain the Tutor pilot's intentions directly, although it was also recognised that there was little time in which to do that. In the event, despite being in possession of Traffic Information and information from his TAS, the EC135 pilot had continued to track towards Nash Point and into proximity with the Tutor. For his part, the Tutor pilot was inbound to Nash Point and had reported seeing the EC135 at a range of 1-1.5nm. Members wondered whether the EC135 had also been displayed on the Tutor pilot's TAS, but he did not report such. The Board strongly disagreed with the Tutor pilot's assertion that the EC135 should have given way to him, and opined that, at a range of 4nm from the airfield, he was not in the 'local airfield environment' in the sense of joining traffic being required to conform with his pattern. The term 'pattern of traffic' was felt to mean the actual visual circuit pattern and did not include any military-only procedure involving an 'initial point'. Members felt that this perception may have been due to the classification of the area up to the IP/Reporting Point as being the LFZ. In the event, it appeared the Tutor pilot was relying on the EC135 pilot's adherence to the VFR joining procedure to effect deconfliction, rather than concern for the approaching EC135's proximity, reportedly 100ft below him. Members agreed that to turn towards the approaching EC135 was not the most sensible course of action, and that the Tutor pilot would have been better advised to have delayed his turn to enable him to maintain visual contact with the EC135, especially because its pilot did not appear to be conforming with the VFR joining procedure.

Assessing the cause and risk, members discussed the differing perceptions of separation and agreed that the EC135 pilot had been concerned by the proximity of the Tutor. It was also agreed that the EC135 pilot had been able to increase separation significantly by turning and descending and that it was the proximity of the Tutor which had caused the EC135 pilot concern, despite him being able to take effective and timely action to increase separation. Members were also unanimous in their agreement that both pilots had displayed a level of assumption/inaction that had not best served safety of flight.

## **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: The Tutor pilot flew close enough to the EC135 to cause its pilot concern.

Degree of Risk: C.