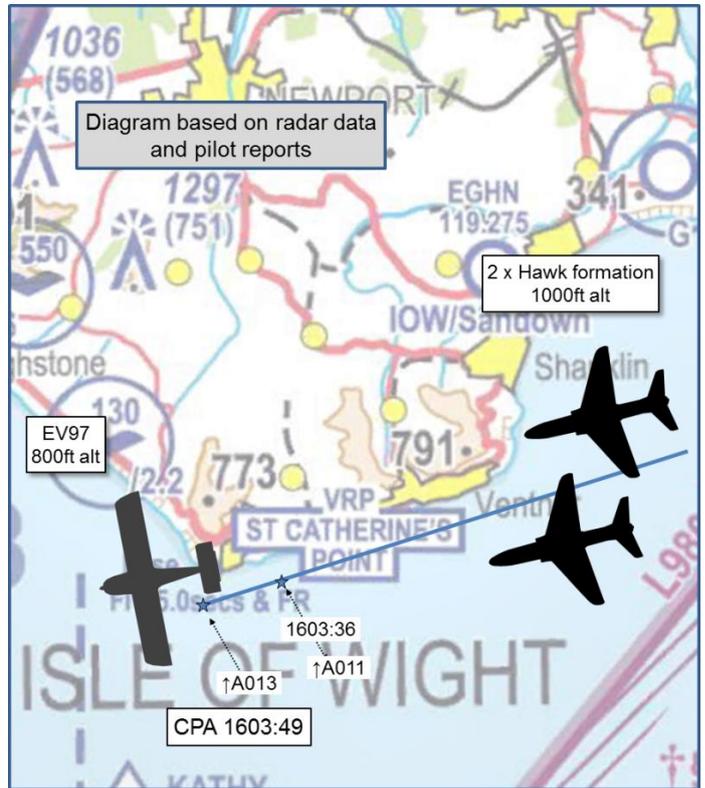


AIRPROX REPORT No 2015108

Date: 10 Jul 2015 Time: 1603Z Position: 5035N 00017W Location: Isle of Wight

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Hawk	EV97
Operator	HQ Air (Ops)	Civ Pte
Airspace	Lon FIR	Lon FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	None
Provider	Solent Radar	
Altitude/FL	1300ft	900ft
Transponder	A,C,S	A,C,S
Reported		
Colours	Red	Unpainted Aluminium
Lighting	Strobes	NK
Conditions	VMC	VMC
Visibility	20km	30km
Altitude/FL	1200ft	1000ft
Altimeter	RPS (1016hPa)	QNH(1019hPa)
Heading	260°	270°
Speed	NK	85kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	4-500ft V	500ft V
Recorded	NK	



THE HAWK PILOT reports transiting in formation along a NOTAM'd low-level route along the south coast. Solent Radar passed Traffic Information on an aircraft operating south of Sandown at 3000ft. The formation was transiting as two sections in 1 mile trail, normal ops for this type of transit, and descended from 1500ft to 1000ft to increase separation from the previously called traffic. No traffic was seen in the Sandown area; however, at St Catherine's point the formation lead saw an aircraft directly ahead at an estimated height of 800ft. The formation climbed to ensure a safe separation of 400-500ft. Because the other aircraft was on the same course as the formation, it was particularly difficult to see, and the Hawk pilot noted that it was operating directly on the published track and time of their NOTAM'd route.

He assessed the risk of collision as 'Low'.

THE EV97 PILOT reports that whilst roughly abeam Ventnor, he noticed a formation of 5 Hawks about 500ft directly above him. His first thoughts were to wonder where the rest of the formation might be and, very shortly afterwards, he saw another 5 directly above and slightly left at an estimated height of 1500ft. One of the aircraft in the second group gave a short smoke signal which was taken as acknowledgement. During pre-flight briefing another pilot had mentioned a NOTAM about the formation coming through at 4 o'clock; he checked his watch and noted they were past that time although, with hindsight, he realised that whilst his watch was BST, the NOTAM was GMT.

He assessed the risk of collision as 'None'.

Factual Background

The weather at Southampton was reported as:

METAR EGGH 101550Z 16005KT 090V230 CAVOK 22/09 Q1017

The NOTAM issued for the Hawk formation transit is reproduced below:

A) EGGT	B) 1507101535	C) 1507101631
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FORMATION TRANSIT BY RED ARROWS ACFT ROUTING:

E) 511951N 0000157E (BIGGIN HILL)	1545
511757N 0001232E (SEVENOAKS)	1547
505353N 0004139E (E HASTINGS)	1552
504404N 0001445E (BEACHY HEAD)	1555
504004N 0003937W (OVER SEA)	1601
503525N 0011740W (ST CATHERINES POINT)	1605
503827N 0015702W (N SWANAGE)	1609
505043N 0021343W (E BLANDFORD FORUM)	1612
510354N 0022112W (E WINCANTON)	1614
512348N 0032036W (CARDIFF)	1621

FORMATION PLANS TO TRANSIT AT 500-2000FT AGL. TIMINGS, HGT AND ROUTE ARE APRX AND MAY CHANGE DUE TO WX OR OTHER REQUIREMENTS.
2015-07-0453/OPS 2

F) SFC	G) 3000FT AMSL
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Analysis and Investigation

CAA ATSI

The EV97 was not under any ATC service and reported flying at approximately 1000ft. The 10x Hawk aircraft were flying in two formations of 5 and were routing westbound from the Hastings Area, south of the Isle of Wight and Bournemouth before tracking towards Cardiff.

At 1558:52 the Hawk aircraft called Solent Radar and a Basic Service was agreed. At 1601:48, the Hawk requested generic Traffic Information. The Solent Radar controller advised the Hawk that there was one contact observed west of Sandown indicating 3000ft and not working Solent Radar. Solent Radar would have utilised their own primary radar, but coverage below 2000ft is poor south of the Isle of Wight. (SSR coverage from Pease Pottage is provided to Southampton via Swanwick). A review of the radar at 1601:48 showed the Hawk aircraft approximately 10nm south of Portsmouth heading west at 1200ft and the traffic that Solent Radar advised at 3000ft west of Sandown. Although the radar did indicate a couple of other contacts around the eastern side of the Isle of Wight approximately 2 minutes prior to the Hawk request, these were intermittent and were not evident when the Hawk requested Traffic Information.

The Swanwick MRT radar continued to show the Hawk at 1200ft until west of St Catherine's Point when it faded from radar cover just prior to a transfer of communication to Bournemouth. It was not possible to establish a CPA as the reporting aircraft was not visible on radar.

No mention of the Airprox was made at the time. Under a Basic Service a controller is not required to monitor a flight and the pilots are responsible for collision avoidance.

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 hazard¹. If the incident geometry is considered as overtaking then the EV97 pilot had right of way and the Hawks were required to keep out of the way of the other aircraft by altering course to the right².

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c) (3) Overtaking.

Comments

HQ Air Command

All parties involved in this incident were entitled to be operating in the airspace in which they were flying. It appears that there was an expectation on the part of RAFAT that the NOTAM issued would discourage GA from operating on the published route. However, it is also possible that the NOTAM may actually attract other aircraft in the hope of getting a view of The Red Arrows in transit. The RAF Events Team receives many requests for appearances by RAFAT and, on occasion, these requests can be satisfied as the Team transits from one venue to another; it is unclear in this case whether or not the chosen routing was to enable satisfaction of any requests. That said, The EV97 pilot was aware of the NOTAM but assessed that the NOTAM was no longer valid as he had mistaken GMT for local time. The barrier of an Air Traffic Service in this case was weakened due to the low-level radar detection difficulties in the area – the choice of a Basic Service over a Traffic Service probably had little effect on the outcome. Neither the Hawk nor the EV97 had ACAS fitted, but both were transponder equipped, so it is likely that had either aircraft been equipped with an ACAS then this barrier to MAC would have been present. Once again, the utility of a robust lookout scan when operating in Class G airspace has been highlighted by this incident.

Summary

An Airprox was reported on 10th July 2015 at 1603 between a formation of Hawks and an EV97. The Hawks were transiting at 1000ft and receiving a Basic Service from Solent Radar when two of the pilots saw an EV97 ahead and slightly below, the formation climbed to increase separation. The EV97 pilot was at 900ft and was not receiving an ATS, he saw the formation of Hawks after it had climbed and no avoiding action was required.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings, and reports from the appropriate ATC and operating authorities.

The Board first looked at the actions of the Hawk pilots, some members wondered whether they had an expectation that other aircraft would avoid their NOTAM'd routing and were surprised to see another aircraft. Military members assured the Board that the Hawk pilots were well aware that their NOTAM was just advisory, and that other aircraft were entitled to be there; it was the fact that the other aircraft, being on the same track, had been particularly difficult to see that had caused them concern. Once they had seen the EV97, the Board noted that they had taken appropriate avoiding action early enough to ensure the situation didn't deteriorate. Some members commented that, in ideal circumstances, a Traffic Service would have been preferable for the Hawks' transit, but it was noted that the radar coverage wasn't very good in this area, and therefore they were unable to receive anything other than a Basic Service, (albeit that Solent radar had provided Traffic Information on traffic that they could see in the area).

Turning to the EV97 pilot, the Board thought that, although he was aware of the NOTAM, it was unfortunate that he had not assimilated that its timings referred to GMT rather than local times. Had he checked the NOTAM carefully then he may have been more aware of the Hawks transiting through, and may have chosen a different routing entirely. Members opined that this again highlighted the need for thorough pre-flight planning, and meticulous scrutiny of NOTAMs in particular, no matter how short a duration or local the flight might be.

For a while, the Board debated whether the EV97 pilot's NOTAM awareness and associated timing error was the cause of the Airprox. However, in the end, they decided that, irrespective of the NOTAM issue and the wisdom of avoiding it or not, because this was Class G airspace, the EV97 pilot was perfectly entitled to operate where he did and so they decided that the cause was simply a

conflict in Class G airspace, resolved by the Hawk pilots. The risk was assessed as Category C because effective and timely action had been taken by the Hawk pilots.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G resolved by the Hawk pilot.

Degree of Risk: C.