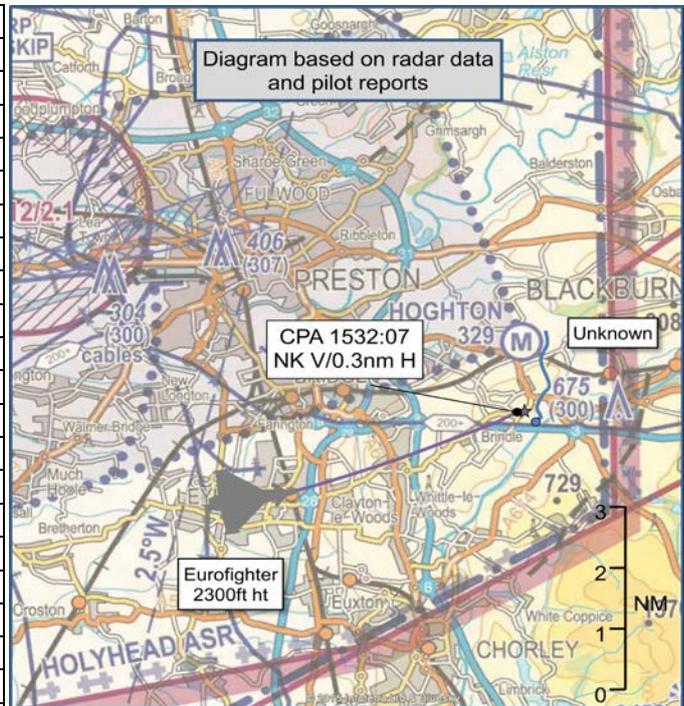


## IRPROX REPORT No 2015124

Date: 3 Aug 2015 Time: 1532Z Position: 5343N 00235W Location: 10nm ESE Warton

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	Typhoon	Unknown
Operator	Civ Comm	NK
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Traffic	
Provider	Warton	
Altitude/FL	2300ft	
Transponder	A, C, S	
<b>Reported</b>		Not reported
Colours	Grey	Red/White
Conditions	VMC	
Visibility	>10km	
Altitude/FL	2300ft	
Altimeter	QFE (1005hPa)	
Heading	070°	
ACAS/TAS	Not fitted	
Alert	None	
<b>Separation</b>		
Reported	200ft V/0.5nm H	
Recorded	NK V/0.3nm H	



**THE TYPHOON PILOT** reports that whilst heading 070°, at 2300ft, in the radar pattern for an SRA, a light aircraft with red/white markings was observed to pass directly across his flight path approximately half a mile ahead and 200ft above. This occurred at the same time as the call to turn crosswind from ATC, he assessed there was no risk of collision due to the turn; however, separation appeared compromised. ATC reported that they had no traffic in the vicinity.

He perceived the severity of the incident as 'Medium'.

**THE LIGHT AIRCRAFT PILOT:** The light aircraft pilot could not be traced.

**THE WARTON CONTROLLER** reports a Typhoon in the Warton visual circuit requested vectoring for an SRA. At the time there was no other spare ATCO; he moved from radar 4 position to radar 1 to conduct the SRA. As he set up the console, he observed a primary radar contact about 11nm east of Warton; he asked the LARS controller if he had traffic east of Warton, to which he replied he had no traffic there. He provided the Typhoon with a Traffic Service, which was reduced due to poor radar performance. As he positioned the Typhoon downwind, the primary radar contact disappeared in the vicinity of Houghton microlight site. He was using the overview (top) screen of radar 1, with a composite radar picture to vector the aircraft as the bottom screen was configured with the analogue SRA picture. At the end of the downwind leg (10nm east of Warton), he instructed the Typhoon to turn onto 350° for base leg. The Typhoon then reported an aircraft approximately ½nm ahead and 200ft above, crossing north to south. There were no other contacts on radar in that position.

He assessed the risk of collision as 'Medium'.

**THE WARTON AIR TRAFFIC UNIT COMPETENCY EXAMINER** reports he was tasked with conducting a unit investigation. He reviewed the radar and RTF recordings held by the unit and spoke with the controller concerned. His initial findings concluded that at the time of the Airprox the conflicting aircraft did not show on the Warton Radar.

## Factual Background

The weather at Warton was recorded as follows:

METAR EGNH 031420Z 23010KT 9999 FEW045 18/13 Q1008

## Analysis and Investigation

### CAA ATSI

The Typhoon, under a Traffic Service, was being radar vectored around the radar circuit at Warton towards a Surveillance Radar Approach for Runway 25. In addition to the ATZ at Warton there is also a non-standard MATZ extending 10nm to the east and west of Warton - although this remains Class G airspace.(Figure 1)



Figure 1: Warton MATZ - AIP

At 1532:02, the controller issued a left turn to the Typhoon onto a left-base leg. This instruction was given when the Typhoon was 10nm from Warton. The pilot immediately reported sighting an aircraft approximately 200ft above and to the right. Figure 2 shows the range from Warton to the Typhoon (displaying code 3675) and also depicts another aircraft in apparent close proximity. The controller advised that there was nothing observed on radar and had to repeat the heading instruction as the Typhoon pilot requested the instruction again. [UKAB Note: although the unknown aircraft appeared on the Swanwick MRT replay, it may not necessarily have been displayed on the Warton radar].

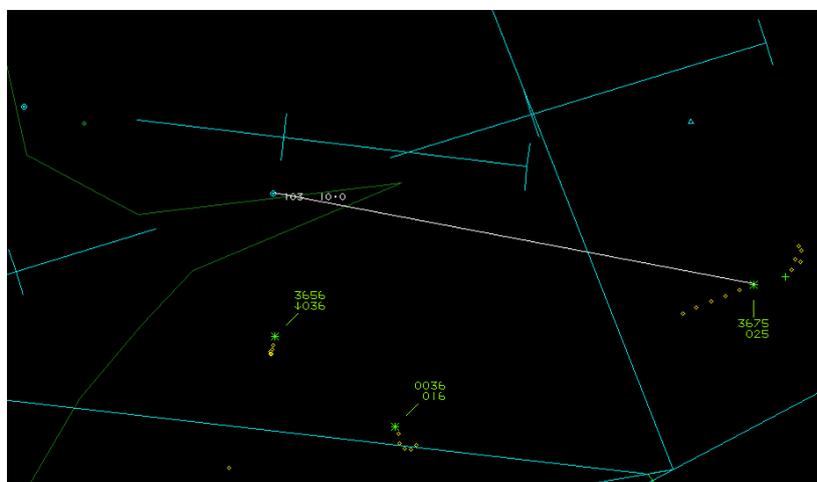


Figure 2: Swanwick MRT at 1532:02  
(depicting range from Warton and unknown aircraft ahead of the Typhoon)

The CPA with the unknown contact occurred at 1532:07 (Figure 3).

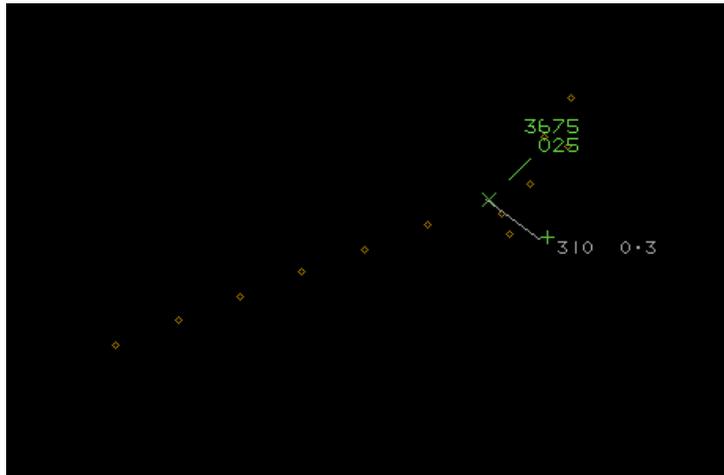


Figure 3: CPA - Swanwick MRT at 1532:07

A Traffic Service is a surveillance-based type of UK FIS where, in addition to the provisions of Basic Service, the controller provides specific surveillance-derived traffic information to assist the pilot in avoiding other traffic. Controllers may provide headings and/or levels for the purposes of positioning and/or sequencing; however, the controller is not required to achieve deconfliction minima, and the pilot remains responsible for collision avoidance.

### UKAB Secretariat

The Typhoon and unidentified aircraft pilots both shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard<sup>1</sup>. If the incident geometry is considered as converging then the unidentified aircraft pilot was required to give way to the Typhoon<sup>2</sup>.

### Summary

An Airprox was reported when a Typhoon and an unknown Light Aircraft flew into proximity at 15:32 on Monday 3<sup>rd</sup> August 2015. Both pilots were operating under VFR in VMC, the Typhoon pilot in receipt of a Traffic Service from Warton. The Typhoon climbed out of Warton into the radar circuit. The controller observed a primary radar contact 11nm east of Warton, the contact was not under the control of Warton. The Typhoon was vectored onto the 'downwind leg' of the radar circuit under a reduced Traffic Service due to poor radar performance; at this time the unknown primary radar contact disappeared from the controllers radar screen. At the end of the 'downwind leg', 10nm from Warton, the controller instructed the Typhoon pilot to turn onto 'base leg'. The Typhoon pilot reported an aircraft 200ft above and to the right; he then requested the base leg turn again and the controller repeated the instruction. The Typhoon pilot turned onto base leg away from the conflicting traffic. The unknown aircraft was tracking south, outside the Warton MATZ.

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

Information available consisted of reports from the pilot of the Typhoon aircraft, transcripts of the relevant RT frequencies, and radar photographs/video recordings from Swanwick, reports from the air traffic controllers involved and reports from the appropriate ATC authority.

The Board firstly observed that it would have been helpful if radar screen shots from the local unit radar had been made available to the Board; this may have aided in the overall analysis of the

<sup>1</sup> SERA.3205 Proximity.

<sup>2</sup> SERA.3210 Right-of-way (c) (2) Converging.

incident and would have been a useful tool to support the controllers report. The ATSI representative said that they did not have access to any of Warton's screenshots during their analysis, although it was clear from the unit that a local investigation had been undertaken, which included radar replays. In this respect, ATC members encouraged Air Traffic Service Units to provide radar screenshots where an aircraft was under the control of that unit during an Airprox; they felt this would greatly enhance the Boards understanding of the local operational air traffic picture.

The Board then moved on to discuss the actions of the controller working the Typhoon. They acknowledged that the Traffic Service had been reduced due to poor radar performance in that area, and that it is probable that this would likely have had an impact upon the overall situational awareness of the controller; the Board considered that this was a contributory factor. The Board took at face value the Warton Examiner's report that the unknown aircraft did not appear on the Warton radar display at the time of the Airprox and, as a result, considered that there was nothing more that the controller could have done to offer the Typhoon pilot more information.

The presence of a MATZ around Warton was discussed, and some members wondered whether this might both give an impression of enhanced protection to aircraft operating in the radar pattern and also funnel civilian aircraft around the MATZ and thus create choke points or areas. In this instance, the Airprox had occurred just outside the MATZ, and the Board were informed that, due to the speed of modern fast-jet aircraft, they are frequently vectored to operate outside of the Warton MATZ when in the radar pattern; some members therefore wondered what benefit there was from having an extended MATZ in first place. Notwithstanding, they acknowledged that Warton had carried out considerable work with local operators in the area to publicise their airspace, and that the level of interaction with aircraft in the local area had noticeably improved.

The Board then discussed the cause and risk of the Airprox. Members regretted that the unknown aircraft could not be traced, and that they could therefore not benefit from the pilot's perspective. As a result, the Board could not comment upon any actions the pilot may or may not have taken. Ultimately, they decided that the cause was best described as a conflict in Class G that had been resolved by the Typhoon pilot who had sighted the other aircraft as he had turned onto base leg in the radar pattern. In determining the risk, members noted that the Typhoon pilot had observed the unknown aircraft half a mile away, and that the turn onto base leg had served to prevent any further conflict. As a result, they agreed that there was no risk of collision and assessed the incident as Category C.

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

Cause: A conflict in class G airspace resolved by the Typhoon pilot.

Contributory Factor: Reduced Traffic Service due to poor radar performance.

Degree of Risk: C.