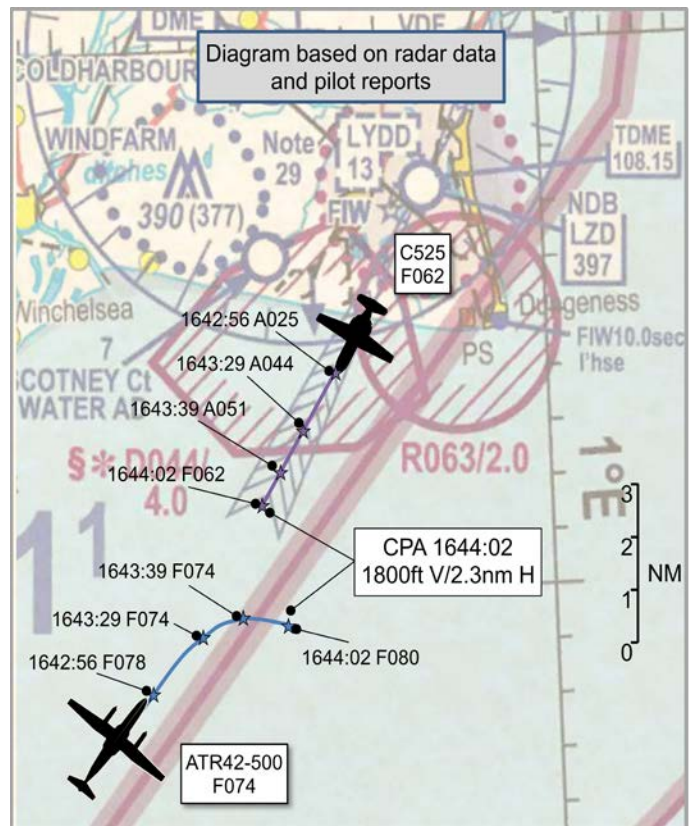


AIRPROX REPORT No 2015181

Date: 8 Oct 2015 Time: 16:43Z Position: 5051N 00051E Location: 5nm S of DET

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ATR42	C525
Operator	CAT	Civ Pte
Airspace	London TMA	London TMA
Class	A	A
Rules	IFR	IFR
Service	Radar Control	Radar Control
Provider	NATS	Lydd/London
Altitude/FL	FL074	FL070
Transponder	On/C, S	On/S
Reported		
Colours	White/Yellow	White/ Brown Stripes
Lighting	Beacon, Strobe, Landing Light	Strobe, Beacon, Nav Lights
Conditions	VMC	IMC
Visibility	20KM	NK
Altitude/FL	FL76	F070
Altimeter	QNH (1013hPa)	QNH (1013hPa)
Heading	040°	210°
Speed	230kt	200kt
ACAS/TAS	TCAS II	TCAS I
Alert	None	TA
Separation		
Reported	1000ft V/>3nm H	Not Seen
Recorded	1800ft V/2.3nm H	



THE ATR42 PILOT reports that he was on an ATC assigned HDG 040, descending FL70. Passing FL76, ATC instructed an avoiding-action turn onto HDG 090. He disconnected the Autopilot and performed a descending turn to HDG 090 (max bank 35 Deg). As the wings came level ATC instructed a climb to FL80. A TCAS TA then alerted him about traffic left and below. He climbed to FL080 and asked the PM to re-engage the autopilot: the aircraft was then steady on HDG 090 and level FL80. ATC later instructed a turn to HDG 360 and subsequently advised that Standard Separation had been maintained. Because ATC had initiated the avoiding action neither the pilot nor the PM saw the traffic. He opined that he had no evidence that the safety of the aircraft may have been compromised and it seemed to him that the ATC ‘triggers’ for initiating avoiding action and his ACAS worked as expected. All remained calm on the frequency and ATC volunteered the separation information.

He assessed the risk of collision as ‘None’.

THE C525 PILOT reports he was departing Lydd RWY21 with an IFR clearance to climb on runway heading. Lydd Tower asked him to contact London Control. Immediately after switching to London Control, ATC ordered him to descend and turn right. ATC then told him he was clear of traffic after completing the manoeuvre.

He assessed the risk of collision as ‘None’.

THE SWANWICK S17 CONTROLLER reports controlling some ALKIN arrivals descending to FL80 as per the standing agreement. Two outbounds were due in their sector from Lydd having been given clearances to climb to FL70. They asked their planner to confirm to TC SE that the ALKIN arrivals

would be released for descent subject to the Lydd outbounds as they were aware of a potential conflict. The planner assured them that he had just finished a phone call to TC SE co-ordinating the Lydd outbounds, so they transferred the ALKIN inbounds to TC. When the first Lydd outbound, a C525, got airborne, they were rather wary as they could see that the ATR42 was on a reciprocal track, already speaking to TC, and that should they descend the aircraft further there would be a conflict. They observed the ATR42 descending below FL80, putting it into direct conflict with the C525, who was not yet on their frequency. They alerted their planner who quickly telephoned TC. The assistant telephoned Lydd to ask them to restrict the climb of the C525; unfortunately the aircraft had already left the frequency. The C525 called on frequency climbing to FL70, they gave avoiding action, but did not give traffic information as they considered that it was more important to obtain a read-back of the avoiding action as soon as possible. After this they observed that the TC controller had also issued avoiding action. They did not talk to the pilot about which service they were giving because there were several other aircraft on frequency and they were very distracted - they did what they thought was safest at the time. Another controller took over the sector from them before they had a chance to explain to the C525 what had happened.

Factual Background

The weather at Lydd was recorded as follows:

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METAR EGMG 081520Z 24012KT 9999 FEW030 SCT045 15/09 Q1022
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Analysis and Investigation

CAA ATSI

At 1636:54, the Area Control (AC) planner had telephoned the Terminal Control (TC) controller to pass traffic information on a C525 that was due to depart Lydd Airport. At 1639:15, the ATR42 (code 5275) pilot reported on the TC frequency descending to Flight level 80. (Figure 1).

At 1642:17, the controller instructed the ATR42 pilot to descend to FL70 and then, at 1642:55, the departing C525 (code 6336) was first observed on radar (Figure 2).

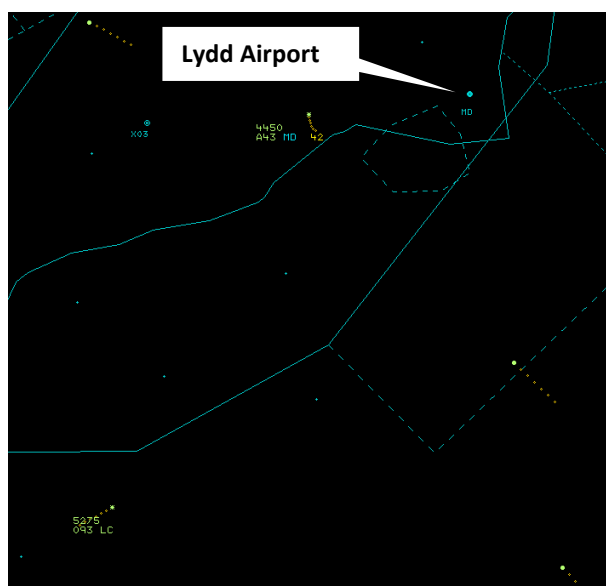


Figure 1 – Swanwick MRT at 1639:15

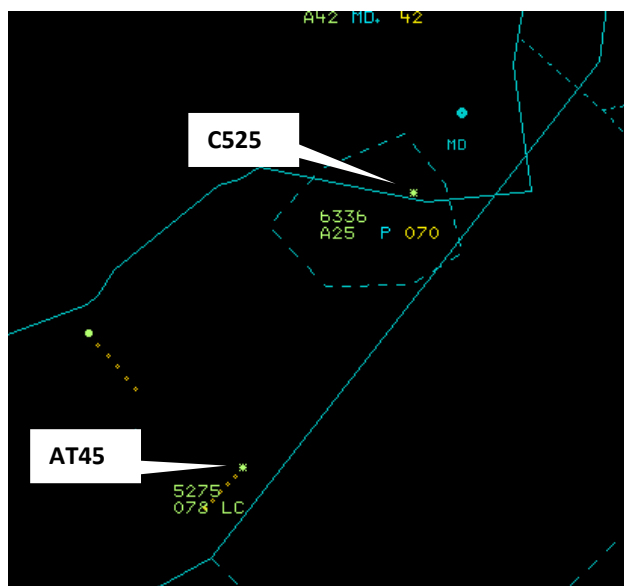


Figure 2 – Swanwick MRT at 1642:55

At 1643:10, the controller issued an avoiding action turn to the ATR42 pilot onto a heading of 090 degrees. At 1643:28 (Figure 3), the Short Term Conflict Alert activated on the controllers radar screen. This was followed, at 1643:34, by an instruction to the ATR42 pilot to climb to FL80.

At 1643:43, the controller issued traffic information to the ATR42 pilot on the conflicting traffic. CPA occurred at 1644:03, horizontal distance 2.3nm, vertical 1800ft.

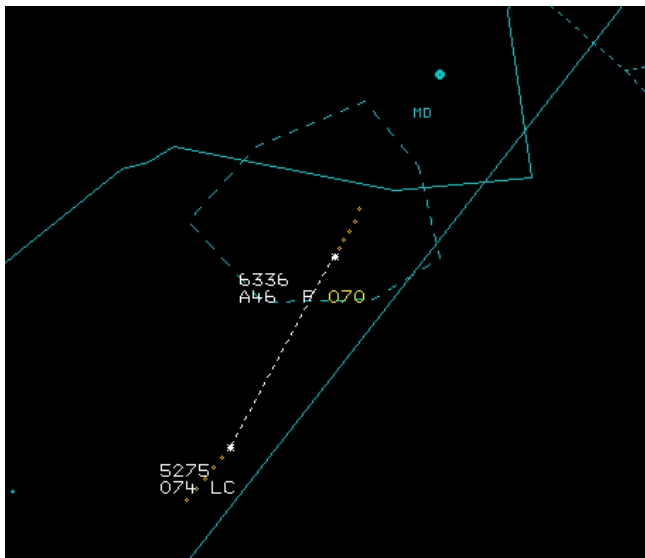


Figure 3 – Swanwick MRT at 1643:28

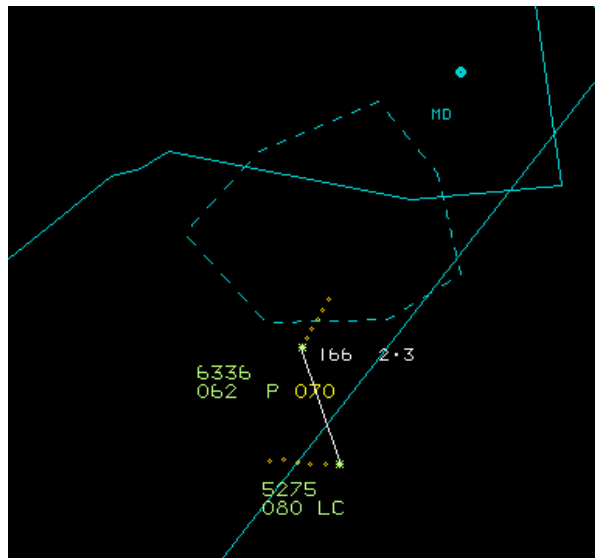


Figure 4 – Swanwick MRT at 1644:03 – CPA

A clearance had been issued by AC to the C525 pilot to join controlled airspace on track to HASTY climbing to FL70 – depicted as the white line in Figure 5 below – and coordinated with the TC controller under whose airspace the C525 would climb. The Planner erroneously stated that the departure would be climbing on track to DVR (to the east) and remain below TC inbound traffic.

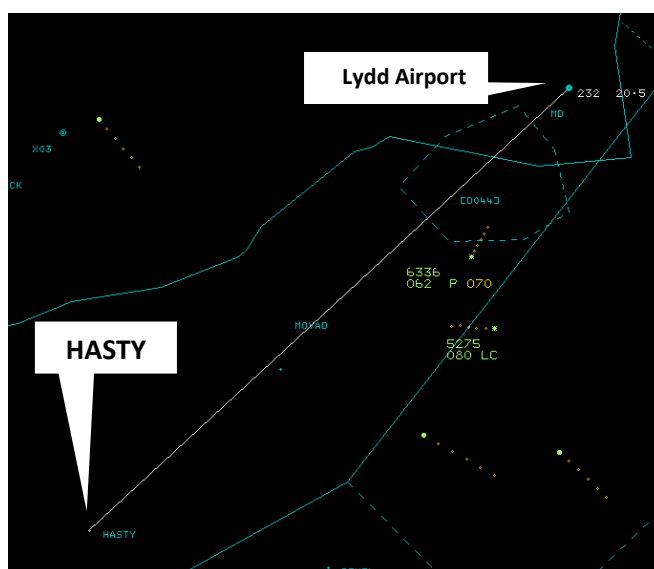


Figure 5 - Swanwick MRT depicting the HASTY track from Lydd Airport

The TC controller identified the conflict as soon as the C525 appeared on the radar and took appropriate and effective avoiding action. The controller also advised the AC controller of his actions. Neither ATR42 pilot sighted the traffic, but the avoiding action was complied with immediately and a TCAS TA was also received. Although an Airprox was filed by the ATR42 pilot, standard separation was maintained.

Even though the proposed track of the departing C525 had been co-ordinated on a different track in error, the TC controller did not ensure separation between the ATR42 and C525 prior to issuing a descent clearance to the ATR42.

NATS Investigation

The NATS investigation reported that the LTC radar replay, associated RT and telephone calls were reviewed.

A clearance had been issued by S17 to Lydd for the C525 to join controlled airspace on track to Hasty in the climb to FL70. The ATR42, known traffic to S17, was established on TC Timba frequency at FL80. At 16:36:54, AC S17 Planner telephoned TC Timba to pass Traffic Information on the C525. The S17 Planner erroneously stated that the C525 would be joining on track to DVR and would climb underneath the TMA outbounds. TC Timba was also informed of a following Lydd departure also routing to DVR. At 16:41:45, TC Timba instructed the ATR42 pilot to descend to FL70. The C525 first displayed on radar at 16:42:55. TC Timba issued an avoiding action right turn and climb instruction back to FL80 to the ATR42 at 16:43:10. TC Timba telephoned S17 to inform them of their actions. Mode-S data displayed that the C525 exhibited a high rate of climb from departure (in excess of 3000ft/min). The C525 reported onto S17 frequency at 16:43:45 and was immediately issued with avoiding action right turn and descent. The closest point of approach between the C525 and the ATR42 was 1700ft and 2.4nm. Separation was deemed to be maintained. The TC Timba controller apologised on the telephone to the S17 Planner stating that it was the TC Timba controller's fault. ATSI considers that the incorrect telephone information may have contributed to the TC Timba controller's error.

UKAB Secretariat

In Class A (Controlled Airspace) it is the Air Traffic Service Units (ATSU) responsibility to separate all aircraft from each other¹.

Summary

An Airprox was reported when an ATR42 and a C525 flew into proximity at 1643 on Thursday 8th October 2015. The ATR42 was operating under IFR in VMC and the C525 pilot was operating under IFR in IMC, the ATR42 pilot in receipt of a Radar Control Service from the Swanwick TC Timba controller and the C525 pilot in receipt of a Radar Control Service from the Swanwick S17 controller. The ATR42 was instructed to take avoiding action against the C525 that was opposite direction climbing to the same level.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, recordings of the relevant RT frequencies, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

The Board's discussion first focussed on the actions of the controllers involved in the incident. ATC members felt that the S17 Controller had transferred the ATR42 to the TC Timba Controller with insufficient or unclear traffic information regarding the S17 Controller's plan for separating the ATR42 and the departing C525. They felt that had this information been relayed to the TC Timba Controller, this would have provided him with enough information to ensure he had the situational awareness not to descend the ATR42 from FL080. They also noted that there had been no accompanying flight progress strip for the C525 to aid the TC Timba Controller's situational awareness; because the TC Timba Controller was only verbally informed of the departing C525 by Lydd, they wondered whether this information had been forgotten by the time the ATR42 had been transferred onto the TC Timba

¹ CAP493, Section 1, Chapter 2, Page 1

Controllers frequency, especially because the departing C525 did not appear on radar until passing 2,500ft in the climb.

The Board then discussed the erroneous information passed by the S17 Planner regarding the C525 joining on track DVR and climbing underneath the TMA outbounds. Although this misinformation clearly did not help the situational awareness of the TC Timba Controller, ATC members felt that it did not have enough bearing upon the situation to be determined as having an impact in the Airprox. They reasoned that, although it was regrettable that this information was not clearer and more pertinent, the TC Timba controller should not in any case have descended the ATR42 until he had positively confirmed the routing of the C525 on his radar.

The attention of the Board then turned to the use of the term 'avoiding action' during this incident. A lively discussion ensued about the perceptions of 'avoiding action' from the Air Traffic Control and Pilot perspectives. Whilst the regulatory literature is clear as to the criteria for initiating 'avoiding action' the discussion centred on the regularity of usage. The Air Traffic Controllers highlighted that controllers are encouraged to use 'avoiding action' as a tool to ensure standard separation was maintained, and that it is not only used when aircraft come into proximity due to standard separation already being lost.² That was not to say that it was considered as a phrase to be commonly used, and the pilots highlighted that the importance of 'avoiding action' must not be diluted by over-usage such that it was perceived as 'normal operations'. Airline pilot members pointed out that if an 'avoiding action' instruction is given, their company procedures state that they must submit an occurrence report; they elaborated that this was an internal report and was therefore not routinely passed on to external agencies. Both parties agreed that the urgency of 'avoiding action' should be fully appreciated by both Air Traffic Controllers and Pilots in order to assure its efficacy.

The Board then looked at the cause of the Airprox, and quickly agreed that the TC Timba Controller had descended to ATR42 into conflict with the departing C525. They then discussed the actions that had been taken to resolve the potential conflict, and agreed that these had ensured that at no time was standard separation lost. A further lively debate was generated in apportioning a risk category. Some members, mostly pilots, thought that because the term 'avoiding action' had been used, this could not be considered as a situation where 'normal procedures and safety standards had pertained'. Other members, mostly controllers, disagreed and claimed that because standard separation had been maintained, the incident amounted to nothing other than normal operations in reflection of many similar events that took place on a daily basis. After a vote, a narrow majority was formed in favour of Category E, although avoiding action had been taken, normal procedures, safety standards and parameters had pertained.

The Board were heartened to hear from ATC members familiar with this airspace that recent changes to the London TMA had resolved the potential for this type of conflict between these Sectors.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The TC Timba Controller descended the ATR42 into conflict with the departing C525.

Contributory Factor(s): The S17 Controller transferred the ATR42 to the TC Timba Controller with inadequate coordination.

Degree of Risk: E.

² CAP717, 5.1.1 - Avoiding action shall be used when immediate action is required to prevent a mid-air collision or a loss of required separation. Pilots receiving such an instruction have been instructed that they are expected to initiate a response immediately and execute the directed manoeuvre briskly (but not so abruptly that there is a risk of losing control, of exceeding performance margins, or of exposing passengers and crew to unnecessary hazards). Significantly, whilst the main purpose of avoiding action is to prevent a mid-air collision, action should not be confined only to circumstances where the required separation has already been lost. Avoiding action instructions are also appropriate in circumstances where immediate action is needed in order to avoid a loss of required separation.