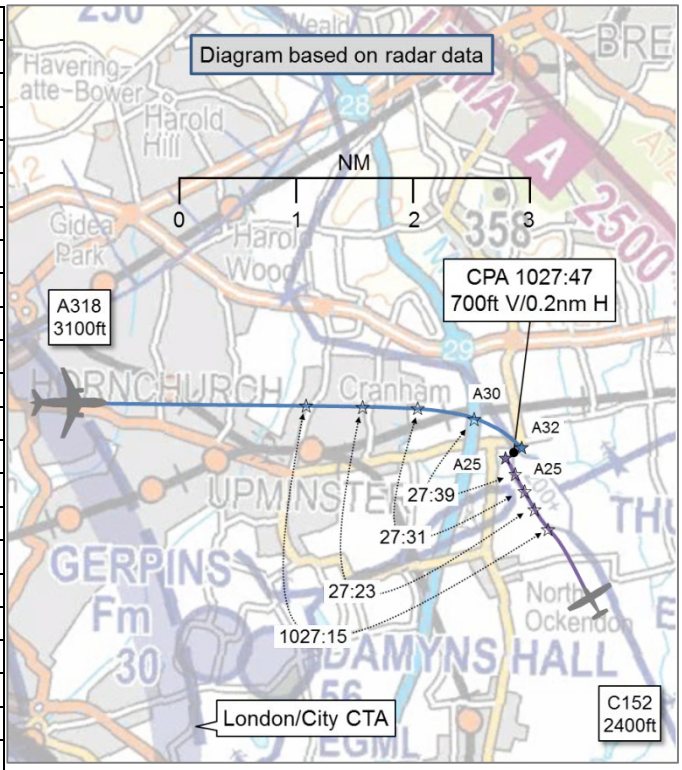
AIRPROX REPORT No 2016009

Date: 16 Jan 2016 Time: 1028Z Position: 5133N 00018E Location: 9nm NE London City

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	A318	C152
Operator	Civ Trg	Civ Trg
Airspace	London TMA	London FIR
Class	A	G
Rules	IFR	VFR
Service	Radar Control	Basic
Provider	Thames	Southend
Altitude/FL	3300ft	2500ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White/blue	Mainly white
Lighting	NK	NK
Conditions	VMC	VMC
Visibility	10km	>10km
Altitude/FL	3000ft	2200ft
Altimeter	QNH (1028hPa)	QNH (NK hPa)
Heading	065°	305°
Speed	210kt	90kt
ACAS/TAS	TCAS II	Not fitted
Alert	RA	N/A
Separation		
Reported	700ft V/0m H	800ft V/<1nm H
Recorded	800ft V/0.2nm H	



THE AIRBUS A318 PILOT reports that he was conducting Base Training, downwind right-hand at London City RW27 just prior to turning base. The aircraft was level at 3000ft at 210kt. The Flight Crew advised ATC of traffic 700ft below. He was advised by ATC that there were 2 aircraft in un-controlled airspace. He received a TCAS 'Climb Climb'. The VFR traffic was seen 500ft below and 'nil horizontally'. A TCAS RA call was made to Thames Radar. He climbed 500ft above the assigned altitude of 3000ft.

He assessed the risk of collision as 'High'.

THE CESSNA 152 PILOT reports that he was instructing a navigation training flight via the Southend overhead, Sittingbourne and direct to Stapleford. The planned altitude for the flight was 2200ft, and 'as directed' for the passage through the Southend CTR/CTA. At the time of the reported Airprox, he was on a direct track to Stapleford from Sittingbourne and working Southend ATC, either Radar or Director, squawking 4575 in receipt of a Basic Service shortly before changing to Stapleford Radio to obtain airfield information ahead of joining the circuit. It was most likely in that position and phase of flight that instructor workload would have been low, allowing the student pilot to monitor their progress along track and ETA, prepare for the join and to prepare himself for the radio call to change to Stapleford Radio. He did recall seeing the reporting aircraft at approx. 1nm or slightly less, 11 o'clock, opposite direction, in a climbing right turn to pass overhead their aircraft.

He assessed the risk of collision as 'None'.

THE THAMES RADAR CONTROLLER reports that the A318 pilot, on a training flight, reported a TCAS RA against traffic outside Controlled Airspace (CAS) whilst on base leg for London City RW27. The pilot climbed from 3000ft to 3500ft. He continued the approach after the event.

Factual Background

The weather at London City was recorded as follows:

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METAR EGLC 161020Z 29007KT CAVOK 03/M02 Q1029=
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CAP493 (Manual of Air Traffic Services)[1] states:

> *'*Except when aircraft are leaving controlled airspace by descent, controllers should not normally allocate a level to an aircraft which provides less than 500 feet vertical separation above the base of a control area or airway. This will provide some vertical separation from aircraft operating beneath the base of controlled airspace*.'*

The Airprox occurred where the base of the London TMA was 2500ft. The A318 pilot had been cleared to descend to 3000ft.

A transcript of the Thames Radar RTF was provided, as follows:

From	To	Speech Transcription
Thames	A318	[A318 C/S] right (1027:20) turn heading one seven five
A318	Thames	One seven five [A318 C/S]????? just showing traffic seven hundred below
Thames	A318	Er yeah there is er two????? out there, erm both verified working adjacent units yeah one six hundred below one seven hundred below
Thames	A318	Both outside controlled airspace
A318	Thames	[A318 C/S] (1027:40) TCAS R A
Thames	A318	[A318 C/S] roger
A318	Thames	[A318 C/S] clear of conflict descending altitude three thousand

Analysis and Investigation

UKAB Secretariat

The A318 and C152 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard[2].

Summary

An Airprox was reported when an A318 and a C152 flew into proximity at 1028 on Saturday 16th January 2016. The A318 pilot was operating within the Class A airspace of the London TMA under IFR in VMC, in receipt of a Radar Control Service from Thames Radar. The C152 pilot was operating outside CAS in the Class G airspace below the London TMA under VFR in VMC, in receipt of a Basic Service from Southend Radar. The A318 pilot received a TCAS RA climb against the C152 below. The minimum separation was recorded as 800ft vertical and 0.2nm horizontal.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from both pilots, the controller concerned, area radar and RTF recordings and reports from the appropriate ATC and operating authorities.

The Board noted that the A318 pilot was operating within Class A airspace of the London TMA and that the C152 pilot was routeing beneath CAS; both pilots were entitled to operate in the airspace they were in. The Civil ATC Terminal member, with experience of Thames radar, commented that it was a normal occurrence for pilots to be cleared within the London TMA to 3000ft where the base

[1] Section 1, Chapter 7, Page 4, Paragraph 9.1. Use of Levels by Controllers.
[2] SERA.3205 Proximity.

was 2500ft. He also commented that, although realising that the A318 pilots operate into London City regularly, they usually did so at an earlier time of day when there was less traffic operating below the TMA. Consequently, she wondered whether the A318 pilot was not used to experiencing aircraft flying below the TMA. A Civil Airline Pilot member confirmed that, in his opinion, this was a usual type of event with traffic operating within and outside CAS. He commented that an Air Safety Report has to be filed after experiencing a TCAS RA, and that some airline's Standard Operating Procedures required these to be filed as an Airprox. However, on this occasion it was the decision of the pilot to request the incident to be investigated as an Airprox.

Board members wondered why a TCAS RA had been generated in this circumstance given that there appeared to be 800ft between the aircraft. They were informed that the radar recordings showed that, as the A318 pilot turned onto base leg in the vicinity of the C152, its Mode C SSR return showed it descending by 100ft. At the same time the Mode C of the C152 had increased by 100ft. It therefore appeared that the coincidental slight descent and climb were enough to generate the TCAS RA and this was considered to be the reason for the A318 pilot having received the TCAS RA to climb, which he carried out.

The Board quickly decided that the cause of the Airprox was a TCAS sighting report. Albeit recognising that the generation of a TCAS RA was undesirable and should not be normalised, the Board concluded that normal safety standards and procedures had in fact pertained and so they categorised the Airprox as risk Category E.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A TCAS sighting report.

Degree of Risk: E.