

## **AIRPROX REPORT No 2014189**

Date/Time: 7 Sep 2014 1420Z (Sunday)

Position: 5347N 00304W  
(2.5nm NNW Blackpool)

Airspace: London FIR (Class: G)

Reporter: Blackpool Radar Controller

Aircraft 1                      Aircraft 2

Type: ATR42                      PA28

Operator: CAT                      Civ Pte

Alt/FL: 1000ft                      2500ft  
Rad Alt                      NK (1016hPa)

Conditions: VMC                      VMC

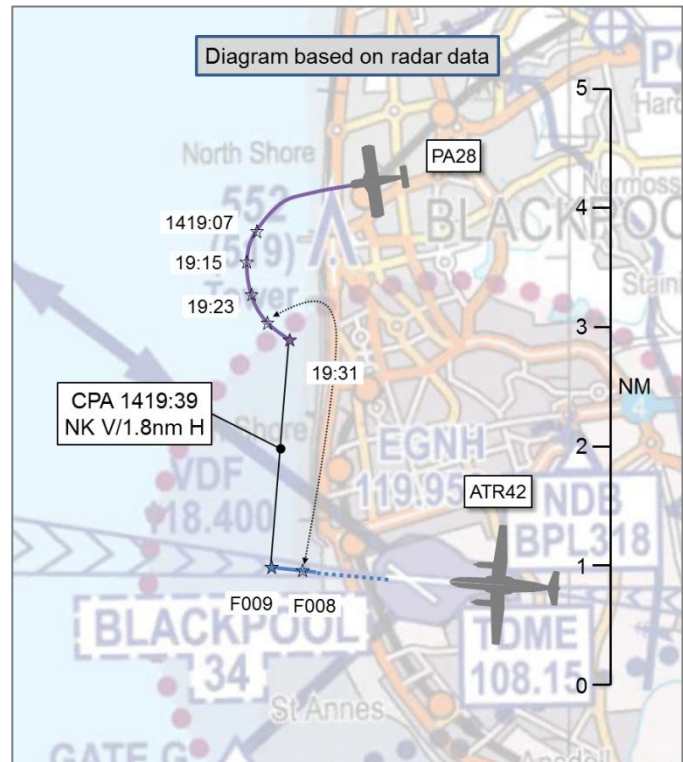
Visibility: >10km                      10km

Reported Separation:

NK V/3nm H                      2500ft V/3nm H

Recorded Separation:

NK V/1.8nm H



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

**THE BLACKPOOL RADAR CONTROLLER** reports that he was the Approach controller on watch; all ATC equipment appropriate to the task was serviceable although the DME was out of service. The ATR42 pilot had been issued a departure release when a 7000 squawk was observed routing towards the tall tower (Blackpool Tower) from the northeast. A blind call was made but no response was received. The 7000 squawk then turned south at the tall tower, toward the airfield, so the controller instructed the Tower controller to issue an avoiding action turn to the ATR42 pilot, onto a heading of 200°. The Approach controller made another blind call to the 7000 squawk. The pilot called and identified himself, level at 2400ft. He was advised of the departing ATR42, approximately 2.7nm south, climbing through his level and asked why he had not established contact earlier. The pilot responded that 'he was outside the ATZ'. The controller advised him of the issue and asked him to contact ATC on landing. Once radar separation had been re-established the ATR42 was turned en-route and transferred to the next ATSU.

He did not make an assessment of the degree of risk of collision.

**THE ATR42 PILOT** reports in the climb after take-off, heading 280° at 110kt and departing from Blackpool Airport. The green, grey and white aircraft lighting state was not reported. The SSR transponder was selected on, with Modes A, C and S, as was the TCAS I. The pilot was operating under IFR in VMC with radar control, he reported. Mid-way through the climb procedure, ATC requested an immediate left turn onto heading 220° and, when able, to contact Blackpool Radar. The turn was completed promptly and, once the climb procedure had been completed, Radar was contacted. The pilot was informed of non-squawking traffic heading south along the coast which was not in contact with Blackpool; the pilot did not see the traffic. He was then asked to contact Scottish control. On landing at his destination, the pilot was asked to contact Blackpool ATC. In the subsequent phone call he was informed that Blackpool ATC would be filing an Airprox, and that his turn after take-off had ensured no loss of separation against the non-squawking traffic.

He assessed the risk of collision as 'Medium'.

**THE PA28 PILOT** reports in level cruise, 3nm to the north of Blackpool airfield. The white, red and blue aircraft lighting state was not reported. The SSR transponder was selected on with Mode C selected off. The aircraft was not fitted with a TAS. The pilot was operating under VFR in VMC, not in receipt of an Air Traffic Service but listening out on the Blackpool Approach frequency. Heading south and approaching the Blackpool Tower at 2500ft and 90kt, the Approach controller asked traffic 'at the tower' to identify itself. The pilot responded and was advised that he would be 'reported'. The pilot questioned why they would do so, given that he was above and outside the Blackpool ATZ. The pilot stated that he had seen a green high-wing aircraft on the ground at Blackpool.

He assessed the risk of collision as 'None'.

### Factual Background

The weather at Blackpool was recorded as follows:

METAR EGNH 071420Z 31009KT 9999 FEW035 16/10 Q1017

A copy of the Blackpool Tower frequency transcript is reproduced below. Note that due to a failure of the recorder time-stamp, the times shown appear to be approximately 1hr ahead.

From	To	Speech Transcription
Tower	ATR42	[ATR42 C/S] after departure runway two eight, cleared to join controlled airspace on track PENIL, in the climb flight level one (1516:20) hundred, squawk four four five four, standby for read-back, I'll call you back
ATR42	Tower	Er we're cleared to join controlled airspace -
Tower	ATR42	[ATR42 C/S] request er read-back on your clearance
ATR42	Tower	Okay we're clear to join controlled airspace (1516:50) er climbing er flight level one hundred on track PENIL, squawking four four five four after departure, [ATR42 C/S]
Tower	ATR42	[ATR42 C/S] read back is correct and er report ready for departure
ATR42	Tower	(1517:00) we'll be ready on reaching [ATR42 C/S]
Tower	ATR42	[ATR42 C/S] after departure, next frequency Blackpool radar one one nine decimal nine five zero (1518:10)
ATR42	Tower	Next frequency one one nine nine five zero [ATR42 C/S]
Tower	ATR42	[ATR42 C/S] runway two eight, left turn out, clear for take-off, surface wind three one zero degrees one zero knots
ATR42	Tower	(1518:20) clear for take-off runway two eight [ATR42 C/S]
Tower	ATR42	[ATR42 C/S] early left turn, radar heading two zero zero degrees (1519:30)
ATR42	Tower	Okay left heading two zero zero [ATR42 C/S]
Tower	ATR42	[ATR42 C/S] contact Blackpool Radar one one nine nine five zero
ATR42	Tower	One one nine nine five zero [ATR42 C/S] (1519:40)

A copy of the Blackpool Radar frequency transcript is reproduced below. Note that due to a failure of the recorder time-stamp, the times shown appear to be approximately 1hr ahead.

From	To	Speech Transcription
Radar	All	This is Blackpool transmitting blind to the seven thousand squawk observed approaching the Blackpool tall tower from the er northeast, (1518:10) if you're on this frequency can you check in please
HEMS	Radar	Blackpool (1518:50) Radar [HEMS C/S] for a basic
Radar	HEMS	[HEMS C/S] Blackpool Radar basic service, to the north I've got three locally based and there's an unknown aircraft just to (1519:00) the north of the tall tower, looks like he's about to transit southbound, if you could identify him, don't obviously intercept but identify would be appreciative
HEMS	Radar	Okay we'll keep a good look (1519:10) out er do you have any height information then on that aircraft

From	To	Speech Transcription
Radar	HEMS	Er no it's not indicating any charlie
HEMS	Radar	[HEMS C/S] roger (1519:20)
PA28	Radar	It's [PA28 C/S], two thousand five hundred over the tall tower, left hand orbit
Radar	PA28	Station calling at the tall tower on the seven thousand squawk, just say the callsign for me
PA28	Radar	[PA28 C/S]
Radar	PA28	[PA28 C/S] (1519:40) roger is this your first call to me
PA28	Radar	Affirm
Radar	PA28	Roger, I've just taken avoiding action on you with I F R departing A T R just airborne runway two eight
PA28	Radar	(1519:50) roger outside of the A T Z ?????? ?????? [part simultaneous transmission]
Radar	PA28	????? [part simultaneous transmission] however if you could provide me with some contact details I think the [ATR42] pilot might want a word with you when you land
PA28	Radar	(1520:00) Roger
Radar	PA28	[PA28 C/S] to remain outside the A T Z and I would appreciate it if you (1520:10) were to remain clear of us vertically, remaining to the north of the airfield or tracking back along the M fifty five please
PA28	Radar	Roger
ATR42	Radar	Radar hello this is [ATR42 C/S] (1520:20), fifteen hundred for flight level one er for flight level one zero zero and we're in a left turn to er heading two zero zero degrees
Radar	ATR42	[ATR42 C/S] thank you, you are identified under Deconfliction Service, (1520:30) you can resume your own navigation
ATR42	Radar	Okay own navigation er PENIL [ATR42 C/S]
Radar	ATR42	[ATR42 C/S] you er are well clear of that conflicting traffic now, (1520:40) it turns out to be an aircraft that er is operating close to the Blackpool A T Z but not under any service and has made a first call to me
ATR42	Radar	Okay that's understood er we did have him on TCAS, (1520:50) we couldn't quite work out how close he was to us though
Radar	ATR42	Yes he was er about er two point eight miles but decreasing as he routed down the coast two thousand five hundred feet, (1521:00) so you were climbing through his level
ATR42	Radar	Understood thanks very much
Radar	ATR42	Hence the avoiding turn to the south, but you can resume your own navigation PENIL now
ATR42	Radar	That's understood ?????? thanks, and we're going towards PENIL now [ATR42 C/S] (1521:10)
Radar	PA28	And [PA28 C/S] (1521:50) it's a Basic Service on the Blackpool Q N H one zero one seven, pass your details please
PA28	Radar	- zero one seven Basic and it's a Warrior, Tarn to Tarn V F R and er we're heading eastbound now
Radar	PA28	Roger that's all copied, squawk zero four five zero advise ?????? back down to Tarn farm
PA28	Radar	Zero four five zero wilco (1522:10)
Radar	ATR42	Er [incorrect ATR42 C/S] Blackpool service terminates, (1522:40) nothing observed between your present position and the edge of controlled airspace, contact Scottish Control one two eight decimal zero five zero, good day
ATR42	Radar	One two eight zero five zero, that's all copied [ATR42 C/S] thanks, bye bye (1522:50)
Radar	ATR42	????? they'll contact you reference the incident through your operator
PA28	Radar	[PA28 C/S] to [destination] one two nine eight two seven thousand

From	To	Speech Transcription
Radar	PA28	[abbreviated PA28 C/S] roger, just be advised that (1525:30) I will have to file on that sir, so er I won't make any comment but I will be filing a sixteen oh two, you might want to make some details
PA28	Radar	Yeah, I'll give you a call on the ground
Radar	PA28	Okay

## Analysis and Investigation

### CAA ATSI

ATSI had access to reports from both pilots, the Blackpool Radar controller, area radar recordings and transcription of the Blackpool Tower and Radar frequencies. The times recorded on the RTF transmissions appear to be an hour ahead of UTC and have been adjusted in this report.

The ATR42 pilot was operating under IFR and was in receipt of an Aerodrome Control Service from Blackpool Tower. The PA28 pilot was operating under VFR on a local flight and was in communication with Blackpool Radar. The Blackpool ATZ is defined as a circle 2.5nm radius centred on the longest notified runway (10/28) from surface to 2000ft.

The ATR42 pilot had been issued a clearance to join controlled airspace on track to PENIL in the climb to FL100. At 1417:50, the Blackpool Radar controller released the ATR42 for departure on a left turn out from RW28 and requested that the ATR42 pilot be transferred to his frequency (rather than direct to Scottish Control) due to a 7000 squawk that was approaching Blackpool from the north (Figure 1).

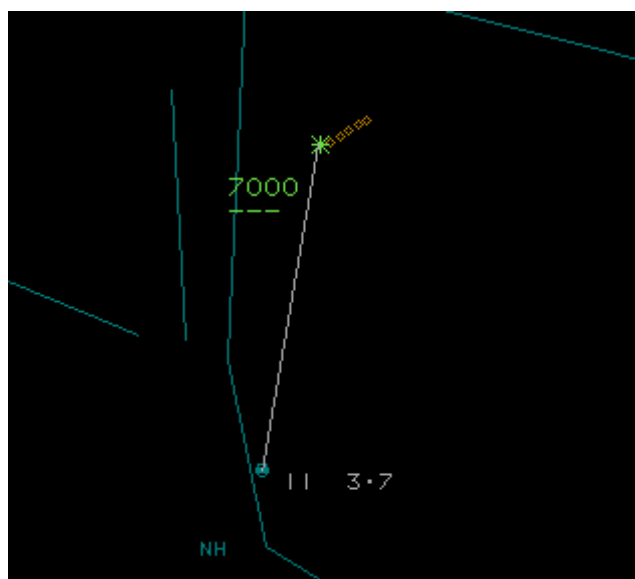


Figure 1 – 1417:56

At 1418:03, the Blackpool Radar controller made a blind transmission “to the seven thousand squawk observed approaching the Blackpool Tall Tower from the northeast if you’re on this frequency can you check in please”. There was no response on the frequency. The Blackpool Radar controller subsequently passed Traffic Information on the 7000 squawk to a departing helicopter (the 0020 squawk) and requested that the helicopter pilot identify the aircraft. The pilot of the helicopter asked if the Blackpool Radar controller had any height information on the 7000 squawk. Prior to the Blackpool Radar controller responding to the helicopter, the Blackpool Tower controller telephoned Radar to advise that the ATR42 pilot was airborne and the Radar controller instructed the Tower controller to turn the ATR42 pilot on an early left turn onto 200°. Blackpool Radar then replied to the helicopter pilot that the 7000 squawk was not displaying any Mode C. The PA28 pilot, who had been listening out on the Blackpool Radar frequency, responded on RT at 1419:21 and advised that he was at 2500ft over the tall tower in a left hand orbit (Figure 2).

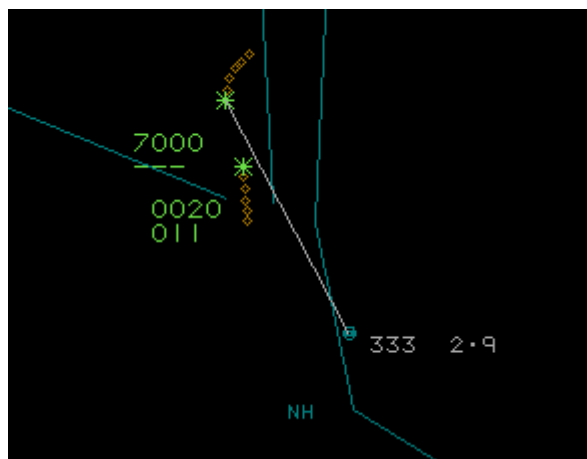


Figure 2 – 1419:21

CPA occurred at 1419:39, during subsequent conversation with the PA28 pilot (Figure 3). The aircraft were 1.8nm apart laterally and 1600ft vertically if the PA28 pilot was at his reported altitude of 2500ft.

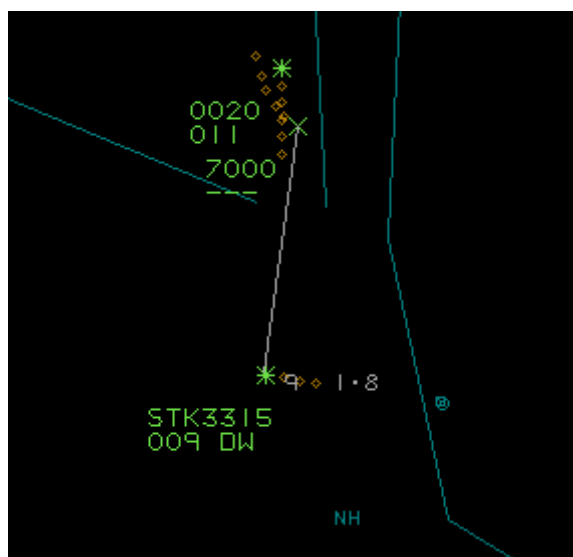


Figure 3 – 1419:39

Blackpool ATSU advised that standard procedure was to provide the ATR42 pilot with a Deconfliction Service. Only on rare occasions was this downgraded to a Traffic Service at their request. It was more usual to reduce the service due to factors such as high traffic density or controller workload.

When the ATR42 pilot was released for departure the Blackpool Radar controller was concerned about the PA28 which was north of the airfield, tracking south, squawking 7000 with no height information. The PA28 was outside the ATZ, in Class G airspace, and was not required to be in receipt of an Air Traffic Service.

The Blackpool Radar controller gave the ATR42 pilot a Deconfliction Service after departure. CAP774, UK Flight Information Services, Chapter 4, Paragraph 4.13 states:

*'...The procedures regarding deconfliction advice to aircraft on initial departure and final approach are designed to cater for 'pop up' conflicts over which the controller has no advance warning due to the uncontrolled nature of Class G airspace. Controllers should attempt to co-ordinate and deconflict observed traffic prior to allowing either the departure of an aircraft that is expected to require Deconfliction Service, or the final approach of an aircraft that is already receiving a Deconfliction Service.'*

At the point when the Blackpool Radar controller released the ATR42 pilot for departure, the PA28 was 3.7nm north of the airfield, tracking south with no height information and not in communication with Blackpool Radar. The PA28 was 'unknown traffic' and therefore the required deconfliction minima was 5nm/3000ft. The Blackpool Radar controller had issued a departure release to the ATR42 pilot when the required deconfliction minima could not be achieved. The Blackpool Radar controller gave a left turn to the ATR42 pilot prior to departure, in an attempt to deconflict the ATR42 from the PA28 but the desired deconfliction minima were not achieved. Although the PA28 pilot was in communication with Blackpool Radar 20sec before CPA, an Air Traffic Service was not agreed until 2½min had elapsed and the deconfliction minima remained 5nm/3000ft.

### **UKAB Secretariat**

The ATR42 and PA28 pilots shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision<sup>1</sup>. If the incident geometry is considered as converging then the ATR42 pilot was required to give way to the PA28<sup>2</sup>.

### **Summary**

An Airprox was reported when an ATR42 and a PA28 flew into proximity at 1420 on Sunday 7<sup>th</sup> September 2014. The ATR42 pilot was operating under IFR in VMC, in receipt of an Aerodrome Control Service from Blackpool Tower. The PA28 pilot was operating under VFR in VMC, not yet in receipt of an Air Traffic Service, having contacted the Blackpool Radar controller shortly before CPA.

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

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

The Board first considered the pilots' actions. The ATR42 pilot had received an IFR departure clearance and was also passed a modified initial heading, which he took up. He was not given specific Traffic Information on the PA28 before CPA, but he reported that he did observe it on his TCAS display. The ATR42 pilot did not receive a TCAS Traffic Alert from the PA28 and did not see it. For his part, the PA28 pilot was conducting a VFR flight at a reported altitude of 2500ft and, as such, remained outside the vertical extent of the Blackpool ATZ. The Board welcomed the PA28 pilot's actions in listening out on the Blackpool Radar frequency and transmitting in response to the Blackpool Radar call; notwithstanding, they commented that the PA28 pilot would have been far better served by calling Blackpool much earlier than he did, and observed that in this respect the UK CAA VFR chart suggests that:

'Pilots intending to fly within 10nm of any part of the IAP symbol [aerodrome 'feathers'] are strongly advised to contact the aerodrome ATSU.'

The Board also noted that the PA28 pilot had elected to turn off his SSR transponder Mode C. Members reiterated that this unnecessary action denied valuable information to Air Traffic Units and reduced the effectiveness of traffic alerting and avoidance equipment fitted to other aircraft; the Board reiterated that the advantages of flying with all available transponder Modes selected far outweighed any perceived disadvantages. In summary, members agreed that, although the PA28 pilot was operating entirely within the provisions of VFR flight in Class G airspace, he would have been much better served by both contacting Blackpool at range to pass his routing intentions and in selecting his Mode C on, thereby enabling some form of coordination with the departing ATR42 on both counts.

<sup>1</sup> Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).

<sup>2</sup> *ibid.* Rule 9 (Converging).

Turning to the Blackpool ATSU, the Board opined that, with no PA28 altitude information available, they would have expected the ATR42's departure either to be delayed until deconfliction minima could be achieved, or its pilot offered a Flight Information Service compatible with the proximity of the PA28 if he wished to depart nonetheless. The Board also noted that, although the Tower controller had passed the departure clearance to the ATR42 pilot, neither he nor the Radar controller had passed Traffic Information regarding the approaching PA28. Members recalled the advice in CAP493 (Manual of Air Traffic Services – Part 1), Section 1, Chapter 12 (UK Flight Information Services), page 9, note to paragraph 4F.5 which states that:

'In areas of high traffic density, Deconfliction Service may be provided, despite the controller considering it unlikely that deconfliction minima will be achieved. In such circumstances controllers should advise the pilot of reduced traffic information delivery and that deconfliction minima may not be achieved.'

However, ATC members did not consider the area to be one of high traffic density at the time of the Airprox, and also noted that the Radar controller had not advised the ATR42 pilot that deconfliction minima may not be achieved. Given that he had had sufficient information available to him in order to prevent this incident, the Board unanimously agreed that the cause of the Airprox had been that the Blackpool Radar controller had cleared the ATR42 pilot to depart into conflict with the PA28. Notwithstanding, members were confident that any risk of collision had been averted given the PA28's track and distance from the ATR42. In this respect, members noted that the left turn issued to the ATR42 pilot, (reported as an avoiding action turn by the Radar controller and transmitted as an 'early left turn' by the Tower controller), had had no substantive effect on separation at CPA.

In subsequent discussion, all members of the Board expressed dismay that the ATR42's departure had been allowed despite observed unknown traffic being within deconfliction minima, and especially without informing the ATR42 pilot of its proximity. Furthermore, ATC Members were at a loss to understand how a request to the HEMS pilot to identify the PA28 could have helped the situation other than perhaps to establish the PA28's height. It also seemed to them that, once the PA28 pilot had reported on frequency, the controller had engaged in a discussion designed solely to engender a sense of reprimand, rather than engage in his duty to identify the PA28 and provide its pilot with an Air Traffic Service, if requested.

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

<u>Cause:</u>	The Blackpool Radar Controller cleared the ATR42 pilot to depart into conflict with the PA28.
<u>Degree of Risk:</u>	C.
<u>ERC Score</u> <sup>3</sup> :	102.

<sup>3</sup> Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.