AIRPROX REPORT No 2022088

Date: 28 May 2022 Time: 1148Z Position: 5354N 00257W Location: Stalmine



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE SKYRANGER INSTRUCTOR reports conducting an instructional flight with the student flying a revision of Ex16A - Forced Landings without Power. They were approximately 15min into the lesson when the instructor sighted what looked like a PA28 flying right-to-left at their height. It then began a left-hand turn towards them, so the instructor turned right to pass behind and began to head north. As they levelled out they noticed the other aircraft had continued the left turn until it had completed a 270° turn and was now flying directly from the east toward their right-hand side. Its landing light was illuminated and they made no attempt to turn, climb or descend. As it closed to about 200m, which took a matter of seconds, the instructor decided to descend and turn underneath it. When they looked behind, it had continued toward Blackpool. The instructor believed the other pilot did not see them. They were squawking 7000 on a Mode S transponder for the whole flight. They continued with the lesson after the incident.

The pilot assessed the risk of collision as 'High'.

THE PA28 INSTRUCTOR reports that they were on a local trial flight. Returning to base, heading south, they saw a C152, they recalled, heading west, about 500ft above and about a mile ahead. Slightly behind and below was a high wing microlight aircraft. Both aircraft continued on a westerly track at constant altitude during the event. The instructor commenced a gentle descending turn to the left through 360° to position behind and below the microlight, and continued their track towards the Poulton VRP.

The pilot assessed the risk of collision as 'None'.

¹ Listening out on 129.830MHz, the microlight ground-to-air frequency.

² The pilot reported the SSR transponder was selected on. Secondary responses were observed after CPA.

THE BLACKPOOL CONTROLLER reports that they didn't recall any mention of an Airprox on the radio, or any subsequent telephone call from a pilot regarding an Airprox. The controller checked the Flight Progress Strips and Watch Log and found no annotation to indicate a report of an Airprox.

Factual Background

The weather at Blackpool was recorded as follows:

METAR EGNH 281150Z 33011KT 9999 FEW028 15/08 Q1027=

Analysis and Investigation

UKAB Secretariat

The Skyranger and PA28 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.³ If the incident geometry is considered as converging then the Skyranger pilot was required to give way to the PA28.⁴

The Skyranger primary track faded at 1147:27 (Figure 1) and the PA28 crossed below and behind the C150 at 1147:47 (Figure 2).



Figure 1. 1147:27

Figure 2. 1147:47

Two primary returns were displayed at CPA (Figure 3) and the Skyranger secondary return was first displayed at 1149:08 (Figure 4).



Figure 3. 1148:27

³ (UK) SERA.3205 Proximity.



Figure 4. 1149:08

⁴ (UK) SERA.3210 Right-of-way (c)(2) Converging.

Summary

An Airprox was reported when a Skyranger and a PA28 flew into proximity near Stalmine at about 1148Z on Saturday 28th May 2022. Both pilots were operating under VFR in VMC, the Skyranger pilot not in receipt of a FIS and the PA28 pilot in receipt of a Basic Service from Blackpool.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and reports from the air traffic controllers involved. Relevant contributory factors mentioned during the Board's discussions are highlighted within the text in bold, with the numbers referring to the Contributory Factors table displayed in Part C.

Members first discussed the desirability of obtaining a surveillance-based FIS but noted that Blackpool did not have a radar and Warton was closed on a Saturday. A controller member wondered whether the pilots would in any case only have been able to obtain a Basic Service at their altitude and range from Warton. In the event, the PA28 pilot had been operating under a Basic Service but the Blackpool controller had not had a radar and so could not have monitored the PA28's flight path (CF1). Neither pilot had had situational awareness of the other aircraft (CF3) although the Board felt that they had each seen the other aircraft at about the same time. Some members commented that had the Skyranger pilot also been in receipt of a Basic Service from Blackpool they may have obtained situational awareness on other aircraft from their position reporting, and vice versa. The Skyranger pilot had turned right, to the north and, although the PA28 pilot described passing below and behind it, members also noted that they had described the Skyranger as continuing on a westerly track, when it had in fact turned right through about 90°. Some members wondered whether the PA28 pilot had actually seen the Skyranger at CPA. The majority of members gave them the benefit of the doubt and felt that the PA28 pilot had perhaps misjudged their separation from the Skyranger (CF2, CF4). The Skyranger pilot was clearly concerned by the proximity of the PA28 (CF5) but saw it in good time to take avoiding action and the Board felt that risk of collision had therefore been averted. Risk C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2022088										
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification							
	Ground Elements										
	Situational Awareness and Action										
1	Contextual	 ANS Flight Information Provision 	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service							
	Flight Elements										
	Tactical Planning and Execution										
2	Human Factors	 Action Performed Incorrectly 	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution							
	Situational Awareness of the Conflicting Aircraft and Action										
3	Contextual	 Situational Awareness and Sensory Events 	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, inaccurate or only generic, Situational Awareness							
	• See and Avoid										
4	Human Factors	Incorrect Action Selection	Events involving flight crew performing or choosing the wrong course of action	Pilot flew close enough to cause concern							
5	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft							

Degree of Risk:

C.

Safety Barrier Assessment⁵

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **not used** because the Skyranger pilot was not in receipt of a FIS and the PA28 pilot was in receipt of a Basic Service, where the controller is not required to monitor the aircraft's track and in this case could not due to lack of surveillance capability.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the PA28 pilot's turn took them into proximity with the Skyranger.

Situational Awareness of the Conflicting Aircraft and Action were assessed as ineffective because neither pilot was aware of the presence of the other aircraft until sighted.

	Airprox Barrier Assessment: 2022088	Outside Controlled Airspace					
	Barrier	Provision	Application	6 5%	Effectiveness Barrier Weighti 10%	-	20%
Ground Element	Regulations, Processes, Procedures and Compliance	Ø					
	Manning & Equipment	\checkmark					
	Situational Awareness of the Confliction & Action	8	0				
	Electronic Warning System Operation and Compliance						
Flight Element	Regulations, Processes, Procedures and Compliance	V					
	Tactical Planning and Execution	\checkmark					
	Situational Awareness of the Conflicting Aircraft & Action	8	\bigcirc				
	Electronic Warning System Operation and Compliance						
	See & Avoid						
	Key: Full Partial None Not Present Provision Image: Constraint of the second seco	t/Not Ass	essable	e <u>Not Used</u>			

⁵ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the <u>UKAB Website</u>.