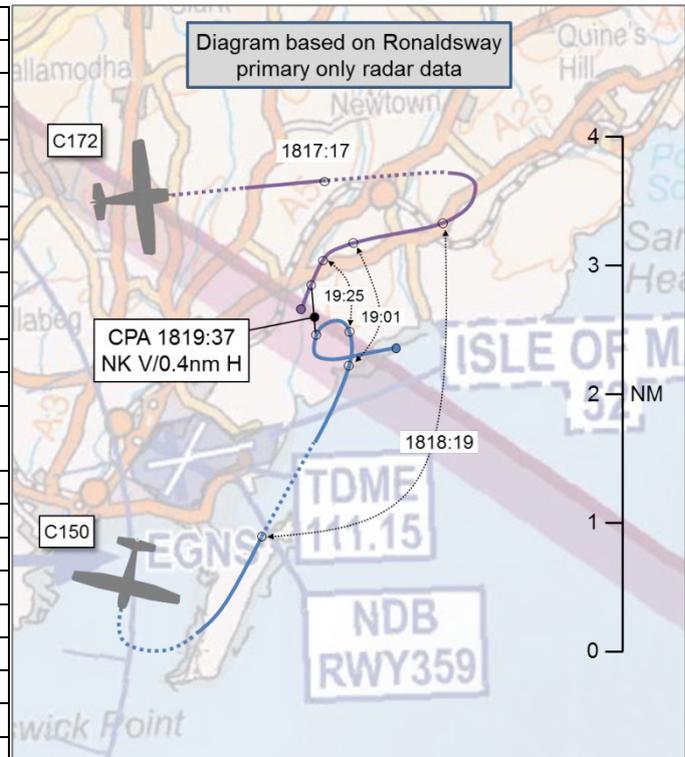


AIRPROX REPORT No 2015115

Date: 20 Jul 2015 Time: 1817Z Position: 5405N 00437W Location: Ronaldsway, Isle of Man

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C150	C172
Operator	Civ Trg	Civ Pte
Airspace	Ronaldsway CTR	Ronaldsway CTR
Class	D	D
Rules	VFR	VFR
Service	Aerodrome	Aerodrome
Provider	Ronaldsway	Ronaldsway
Altitude/FL	NK	NK
Transponder	A, C	A, C
Reported		
Colours	White/blue	Black/gold
Lighting	Tail strobe, landing light	Strobes, anti-coll beacon
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1000ft	600ft
Altimeter	QNH (1002hPa)	NK (1002hPa)
Heading	030°	120°
Speed	80kt	75kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	Not seen	Not seen
Recorded	NK V/0.4nm H ¹	



THE RONALDSWAY AERODROME CONTROLLER reports RW26 and RW21, both left-hand, were in use but that the surface wind was favouring RW21 for circuit training. There was low cloud to the north of the aerodrome, affecting the area around the RW21 final approach. The SSR was unserviceable following a failure earlier in the day, so the ATM was displaying watchman PSR-only returns. These were somewhat limited due to the small radar cross-section of the traffic and proximity to the antenna. The C150 and a PA28 [not involved in the Airprox] were left hand in the circuit. Shortly before the incident, the controller had resolved a potential conflict between an IFR inbound, landing from an ILS approach to RW26, and the circuit traffic. This had required the C150 to hold south of the RW26 final approach track. At this time, the Approach controller called to coordinate the VFR arrival of the C172 from the northwest, requesting to land RW21. Considering the traffic situation, and the ILS traffic's potential for go-around, the controller asked the Approach controller to route the C172 initially towards the IOM VOR. On his first call on the frequency, the C172 pilot advised the controller of his routing as passed by Approach. The controller asked him if he would prefer a left- or right-hand circuit, to which he replied that he would accept a right-hand circuit. At this time the C150 was on a 'tight left base' for RW21, and the PA28 was commencing a long LH downwind leg, having been given a long climb out for delaying action against the C150 initially holding ahead. The C172 pilot reported turning toward right base RW21 and, once the C150 was on very short final, the controller asked the C172 pilot whether he was visual with the PA28, left-hand downwind. After initially saying negative. He then replied 'affirm'. The controller instructed him to 'report final number 2' which was read back. The C150 became airborne; the PA28 pilot reported final and the controller cleared him for a touch-and-go. The radar return for the C172 at this time was tracking due east towards about a 2 mile final for RW21, but on a closing heading of around 120° rather than base leg. The controller observed the C172 primary return fly obliquely through final, continuing east. At this point the C150 was airborne, turning left crosswind, and the PA28 was on the

¹ As recorded on the Ronaldsway watchman radar.

runway. The controller asked the C172 pilot to confirm that he was visual with RW21 and, after hesitation; he appeared to reply 'Yes just coming round to it now'. He once again asked the C172 pilot to report final. The C150 pilot then called downwind, and the controller asked him to report ready for base, number 2 to the C172, and informed him that the C172 appeared to have flown through final and was at the end of the downwind leg. He advised the C150 pilot that the C172 was turning back in from the east [the C172 pilot turned right]. The C150 pilot advised he would lookout for the traffic. He then queried whether the C172 was on final for RW21. The controller called the C172 pilot twice, asking him to report position; the reply to the second transmission was '[C172 C/S] request go around and round for 26'. The controller instructed him to go around, climbing straight ahead RW21, in the expectation this would ensure safe passage of the C150 downwind. The C172 pilot did not read this instruction back and, shortly after, the C150 pilot reported he would need to turn left (on to base) or route to the east. The controller passed further Traffic Information to the C150 pilot that the C172 was in his 11 o'clock at range 1 mile. He also noted that the C150 pilot had turned left towards the C172. The C150 pilot reported he 'would be India Mike' and would need to break off to the east. The controller passed further Traffic Information asking if the C150 pilot was visual with the traffic at 12 o'clock range 1/2 mile. He replied negative. The controller then observed the C150 radar return making a tight right turn to the east, he recalled, ahead of the C172 return. He estimated that the returns passed approximately 0.4nm apart. The controller noted that the situation was not helped by the airfield bird-scaring vehicle driver exhibiting a lack of awareness in asking to enter and cross active runways while the incident unfolded.

The controller stated that he spoke to the C150 and C172 pilots after the occurrence. The C150 instructor reported that the student had been upset by the experience, but that neither he nor his student had become visual with the C172 until much later. The C172 pilot was apologetic and admitted to having made a mistake in flying into cloud. The controller advised both pilots that he would be filing an ATC occurrence and probably an Airprox as he considered there to be a definite risk of collision.

THE C150 PILOT reports instructing a circuit detail to RW21 at Ronaldsway. Weather in the circuit was acceptable; however, there was a bank of cloud between $\frac{3}{4}$ to one mile on the final approach path to RW21, from virtually surface level to his estimation of 1500ft. During the circuit session, he heard a Cessna aircraft pilot call Ronaldsway Tower stating he was inbound to the IOM beacon. No further information was given. Whilst attempting to maintain a listening watch and instruct the student, he heard the Cessna pilot say he was going to attempt a visual landing on RW21, joining on a right base. A short time later, as the C150 approached the end of the left-hand downwind leg, he heard ATC tell the Cessna pilot that he had gone through the centreline. The C150 instructor was aware that ATC did not have use of SSR but, using this RT information and knowledge of the direction from which the C172 pilot reported he was coming, the C150 instructor interpreted that the Cessna was now heading towards the left hand downwind leg and in his general direction. It was not possible to see the approach to either RW21 or the aircraft on it due to the cloud. The instructor decided he had to assume at this point that the Cessna was in IMC, and that his own imminent turn on to a left base would bring them 'into further conflict' with the Cessna. Due to the weather conditions ahead, and his reluctance to turn left, he informed ATC that he had no option but to turn right in an easterly direction, he recalled; at that point he deemed this to be the safest course of action. ATC then advised him that he could route back toward a left base for RW21 and a landing was carried out with no further issue. The instructor stated that neither he nor the student saw the Cessna until they had taxied in, when they saw it land on RW26. He could not state how close they had got to the other aircraft, but that in his mind at that time he assessed that they were going to enter into a conflict with the aircraft so he acted accordingly believing that a risk existed.

THE C172 PILOT reports he requested RW21 for his arrival on the basis of METAR and ATIS information and the fact that the C150 was doing circuits to RW21. The Tower controller cleared him to right base for RW21. Partial low-level cloud suddenly became denser just before he needed to turn on to final and he lost sight of the runway threshold. He abandoned the approach and initiated a climb on a southerly heading. He did not see the C150 at any stage, but heard its pilot announce that he would be phoning the Tower after landing. The pilot stated that, having heard the other light aircraft doing circuit practice to RW21, he believed that visibility was suitable for an arrival to RW21. He

commented that although the latest ATIS gave cloud as FEW at 400ft on the field, there was an unusual cloud formation immediately to the north. He observed that he would endeavour to be better prepared in future; with a 'plan B' should meteorological conditions fall below that expected.

Factual Background

The weather at Ronaldsway was recorded as follows:

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METAR EGNS 201750Z 21013KT 180V240 9999 FEW004 SCT040 15/14 Q1002 NOSIG  
METAR EGNS 201820Z 22013KT 9999 FEW004 15/14 Q1002 NOSIG
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Analysis and Investigation

CAA ATSI

The C172 pilot was flying under VFR and approaching Ronaldsway from the west. The C150 and a PA28, also in the visual circuit, were both operating under VFR on the RW21 left hand circuit. There was some patchy low cloud just to the north and north-west of the field which also made the use of the left hand circuit the preferred direction. The controller did not have SSR data available on the Aerodrome Traffic Monitor (ATM) so was limited to primary radar derived information.

At 1814:03, the C172 pilot first called ATC and was asked which runway he would prefer; he elected to join right base for RW21 both to expedite his approach and due to the wind direction, obtained from ATIS. The C172 pilot was asked to report joining right base and informed he would be number 3 in traffic following the PA28 downwind left (The C150 was number 1 on finals for a touch-and-go at this point). At 1815:33, the controller asked the C172 pilot to report whether he was visual with the PA28 in the left hand circuit, to which the pilot initially hesitated and then confirmed that he was and would report final number 2 as instructed.

At 1817:45, the controller asked the C172 pilot if he was visual with RW21 which, after a pause, he confirmed was just coming into view. At 1818:30, the controller issued Traffic Information to the C150 pilot, who was now downwind, advising that the C172 appeared to have flown through the final approach and was turning back from the east.

At 1819:02, the controller instructed the C172 pilot to go-around and asked if he was above cloud to which the pilot confirmed he was. The C150 pilot, now late downwind, had begun his left base turn, which he continued as a left turn, the long way round on to the east, away from the circuit and the potential conflict with the C172 (which had been discussed with ATC) and also due to cloud at the end of the downwind leg. The controller also instructed the PA28 pilot, at the beginning of the downwind leg, to route eastbound in an effort to ensure the C172 would not be a confliction. Extensive Traffic Information to all the pilots concerned was passed, the closest of which was passed to the C150 pilot concerning the C172 in his 12 o'clock at half a mile. This range would have been judged from the primary only ATM, and no height information was available. The controller then acquired the C172 visually and was able to return the other aircraft to the circuit whilst routing the C172 pilot towards an approach to RW26.

Under an Aerodrome control service the controller is responsible for issuing instructions to aircraft under their control to achieve a safe, orderly and expeditious flow of air traffic with the objective of preventing collisions between aircraft flying in, and in the vicinity of the ATZ and also aircraft taking off and landing. However, Aerodrome control is not solely responsible for the prevention of collisions as pilots must also fulfil their responsibilities in accordance with the Rules of the Air.²

² CAP493, Section 2, Chapter 1, paragraph 2.

UKAB Secretariat

The C150 and C172 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard³. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation⁴.

CAP746 (Meteorological Observations at Airfields) states:

'For ATS purposes, the measurements of meteorological elements should be representative of the landing and take-off areas on the runways. For the METAR, the measurement should be representative over the whole aerodrome operating area.'⁵

Summary

An Airprox was reported when a C150 and a C172 flew into proximity at about 1817 on Monday 20th July 2015. Both pilots were operating under VFR in VMC, both in receipt of an Aerodrome Control Service from Ronaldsway Tower.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

The Board first considered the pilots' actions. The C172 pilot had been offered the choice of a right- or left-hand join to RW21 and had requested, and been cleared for, a right-base join under VFR. He was initially cleared as number 3 behind the C150 and a PA28, both in the left hand visual circuit, but by the time he arrived at the airfield both the other pilots had completed their approaches and hence the C172 was number 1. Although VMC was prevalent in the immediate airfield area, it became apparent that an area of low cloud to the north and east of the airfield was a factor. The C172 pilot continued his course to right base but lost sight of the airfield due to the marginal weather. He attempted to regain visual contact by turning back towards the RW21 centreline but the controller, aware of the developing confliction, instructed him to go-around on runway heading. Members noted that the C172 pilot had reportedly flown into cloud, and had therefore not remained under VFR, in accordance with his joining clearance. Members noted it was important to look and plan ahead, such that a clearance could be complied with, and agreed with the C172 pilot's comment on being better prepared.

For his part, the C150 student pilot was approaching the left-base turn position as the C172 pilot was attempting to regain visual contact with the airfield. The C150 student commenced a left turn as the C172 pilot was instructed to go-around. It became apparent to the C150 instructor that the weather was not suitable and, with growing concern as to the possibility of confliction with the overshooting C172, he took control and continued the left turn to roll out on east, away from the conflicting traffic.

Turning to the controller's actions, he had provided Traffic Information to all the pilots in the visual circuit and had used his ATM display to improve his situational awareness of the circuit traffic positions. It became apparent that the C172 pilot would not be able to complete an approach to RW21 so the controller instructed him to go around, whilst also ensuring the C150 and PA28 pilots did not fly into confliction with it.

The Board noted that the C150 pilot was also obliged to modify his circuit due to the low cloud, which prompted some discussion amongst members. It was felt that the meteorological information in the ATIS may not have been fully representative of the cloud structure in the aerodrome operating area,

³ SERA.3205 Proximity.

⁴ SERA.3225 Operation on and in the Vicinity of an Aerodrome.

⁵ Chapter 2 (General requirements for aerodrome observations), paragraph 2.4, page 16.

and that the C172 pilot may have formed an incorrect view of the conditions he was about to encounter. Members agreed that a METAR could not capture all elements of the weather picture, and that it was not designed to do so - rather, that it was designed to give a simple and short picture of those weather elements which would likely be a factor for a joining pilot. It was also agreed that it would not be possible to have a complete picture of the weather on the day but, as one member commented, even 1/8 cloud is 8/8s if you're in it. It was agreed that the weather conditions had been marginal for VFR joins to the north, and quite probably for circuits to RW21 if they extended far from the airfield; members agreed that this had been contributory to the Airprox. Regarding the cause, members first discussed the responsibilities of pilots and controllers in the Class D environment of the Ronaldsway visual circuit. The pilots were cleared to operate under VFR and, as such, the controller was responsible for providing Traffic Information such that the pilots could deconflict visually, which he did. When it became apparent that the C172 could not be seen and was potentially flying into conflict with the other aircraft in the visual circuit, the controller provided positive control to effect deconfliction. Members noted that the C172 pilot had been told to go around as the C150 student had started his left base turn. The C172 altitude could not be positively determined from radar but members felt it likely that it had been above the C150 due to its being in the climb at a slower speed than the C150 (which was level or slightly descending to remain clear of the cloud bank and pulling away from the C172).

After considerable discussion, members agreed that the cause of the Airprox was that the C172 pilot had lost sight of the airfield and, having been told to go around by the controller, had then flown close enough to the C150 to cause the controller concern. Members also discussed the risk at length, but eventually concluded that the lack of either altitude information or any assessment from the pilots (who had not seen each other) rendered a meaningful finding impossible.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The C172 pilot lost sight of the airfield and flew close enough to the C150 to cause ATC concern.

Contributory Factor: The weather conditions were marginal for VFR joins and circuits to RW21.

Degree of Risk: D.