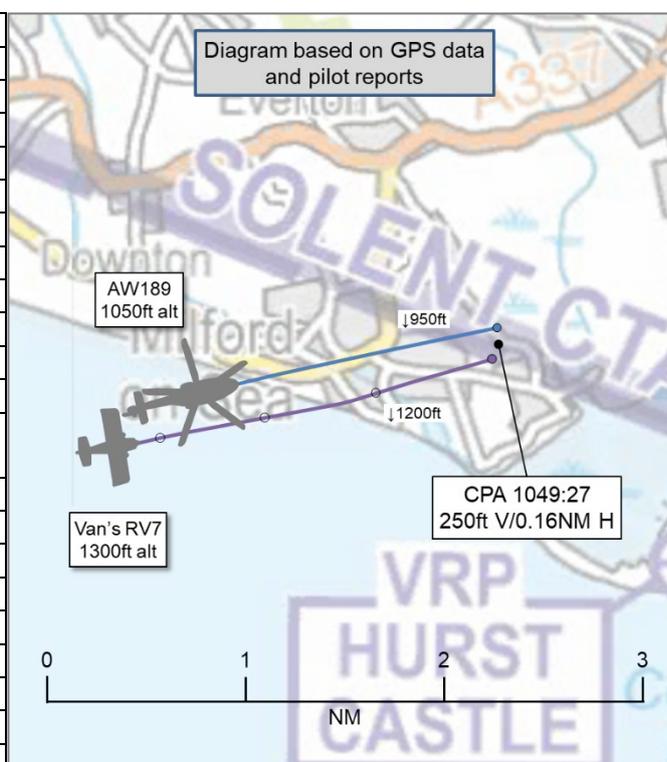


## **AIRPROX REPORT No 2021163**

Date: 31 Aug 2021 Time: 1049Z Position: 5044N 00134W Location: Milford on Sea

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	AW189	Van's RV7
Operator	Coast Guard	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	AFIS	AFIS
Provider	Lee-on-Solent	Lee-on-Solent
Altitude/FL	950ft	1200ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Red, white, blue	Red, yellow
Lighting	Position, anti-col, landing	Strobe, navigation
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1000ft	1200ft
Altimeter	QNH (1029hPa)	QNH (NK hPa)
Heading	080°	080°
Speed	120kt	130kt
ACAS/TAS	TCAS II	Not fitted
Alert	RA	N/A
Separation at CPA		
Reported	0ft V/200m H	300ft V/>0.5NM H
Recorded	250ft V/0.16NM H <sup>1</sup>	



**THE AW189 PILOT** reports that, having conducted a cloud break ILS at Bournemouth, they were cleared VFR via Hengistbury Head to route onward to Lee-on-Solent. Traffic Information was passed to both them and [the RV7 pilot] about each other by Bournemouth Radar. They could not visually acquire [the RV7] as it was behind them. Just past Hurst Castle VRP they were aware on TCAS that an aircraft was approaching them from the rear and in the descent. The crew tried to visually acquire this aircraft but it was directly behind. When the TCAS issued a TA and they noted that the aircraft was continuing to descend, they made the decision to descend themselves as they were unsure whether the aircraft's [pilot] had sighted them below and did not want [the RV7] to descend on to them. A small turn was also actioned to clear their blind-spot. The TCAS then issued a "monitor vertical speed" which they did in the descent as the TCAS warned against a climb on the VSI. They then became visual with [the RV7] in their 5 o'clock at a similar level. The aircraft was approximately 200m away and overtaking on their starboard side. With the Wycombe Air Park mid-air collision in mind, they believe the actions of [the RV7 pilot] to have been irresponsible and the TCAS RA and Airprox could have been completely avoided had a larger separation been provided.

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

**THE VAN'S RV7 PILOT** reports that they were flying as pilot in command on a VFR flight plan from [departure airfield] to [destination airfield] in their Van's RV7 aircraft. Their route took them past Sandbanks VRP along the coast in Class G airspace, parallel to the southern boundary of the Bournemouth CTR. They were communicating with Bournemouth Radar and their Mode S transponder squawk was as assigned by Bournemouth Radar. Bournemouth informed them of a helicopter routing southward towards the coast. Visibility was excellent and they informed the Bournemouth controller that they had the traffic in sight. Upon reaching the coastline, the helicopter took up an easterly heading.

<sup>1</sup> Measured by comparison of respective GPS track positions.

They maintained a similar heading, further south and at a higher altitude, while keeping a close watch on the helicopter and appropriate lateral and vertical separation at all times. Their groundspeed was somewhat faster than the helicopter's and thus they gradually passed the helicopter with ample separation. They continued and landed at [destination airfield] and they were surprised to hear later that there was some question of an Airprox incident. In conclusion, they would like to draw attention to the clear visibility conditions, relative positions of the aircraft, appropriate separation maintained visually at all times and that both aircraft were on the same frequency which would have allowed any concern to be easily communicated. They do not consider that safety was in any way compromised.

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

**THE BOURNEMOUTH RADAR CONTROLLER** reports [the AW189] was being vectored for an ILS to RW08 at Bournemouth to break cloud and then depart VFR to the southeast en-route to [destination airfield]. [The RV7 pilot] was on a Traffic Service to the west routing to the south of the Bournemouth Control Zone also inbound to [destination airfield]. Various inbounds and outbounds were on frequency at the time with a reasonably high workload.

[The AW189 pilot] broke off from the ILS at about 3 miles to route direct to Hengistbury Head VFR at 1042. As the helicopter was departing, [the pilot] was advised of [the RV7] to the south of them. Traffic Information was also passed to [the RV7 pilot] on the [AW189] helicopter and the pilot of [the RV7] called visual with the helicopter at 1045 and followed the helicopter eastbound along the coast. At 1048, [the AW189 pilot] reported changing frequencies to [destination airfield] in the vicinity of Hurst Castle and then, at 1048:48, [the RV7 pilot] also advised changing to destination airfield frequency]. The radar replay showed a TCAS alert at 1049:24 after both aircraft had left the frequency.

**THE LEE-ON-SOLENT AFISO** reports that no Airprox or incident was reported at the time on frequency by either pilot. [The RV7 pilot] called inbound wishing to join straight-in for RW05 at 1049. The [AW189 pilot] called inbound just after at 1050. The AFISO asked [the AW189 pilot] how they wished to join and they advised straight in for RW05. The AFISO then let [the AW189 pilot] know that there was one other aircraft inbound from a similar direction; the [AW189 pilot] advised that they were visual with that aircraft in their 1 o'clock high. [The RV7 pilot] then confirmed that was them.

Nothing more was said until both aircraft had landed. [The AW189 pilot] asked the Tower to pass the contact details for the pilot of [the RV7] but did not explain why. The AFISO explained that they could not pass the details but that they would try to contact the pilot directly and pass on the [AW189 operating authority's] telephone number. Later, the [AW189 operating authority] telephoned the Tower and asked for the registration of the other aircraft as they would be filing an MOR in relation to "a TCAS RA which happened out in the Solent which could have been avoided".

## Factual Background

The weather at Southampton Airport was recorded as follows:

METAR ECHI 311050Z 03009KT 360V070 9999 BKN016 16/13 Q1030=

## Analysis and Investigation

### UKAB Secretariat

The AW189 and Van's RV7 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.<sup>2</sup> If the incident geometry is considered as overtaking then the AW189 pilot had right of way and the Van's RV7 pilot was required to keep out of the way of the other aircraft by altering course to the right.<sup>3</sup>

<sup>2</sup> (UK) SERA.3205 Proximity.

<sup>3</sup> (UK) SERA.3210 Right-of-way (c)(3) Overtaking.

## Summary

An Airprox was reported when an AW189 and a Van's RV7 flew into proximity over Milford on Sea at 1049Z on Tuesday 31<sup>st</sup> August 2021. Both pilots were operating under VFR in VMC and both pilots were in receipt of an AFIS from Lee-On-Solent.

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

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS log files for both aircraft and reports from the Bournemouth Radar controller and Lee-on-Solent AFISO.

Due to the exceptional circumstances presented by the coronavirus pandemic, this incident was assessed as part of a 'virtual' UK Airprox Board meeting where members provided a combination of written contributions and dial-in/VTC comments.

The Board discussed this event and concluded that normal safety standards and parameters had pertained and that that had been no risk of collision. Accordingly, the Board assigned a Risk Category E to this Airprox. However, members agreed that the following factors (detailed in Part C) had contributed to this Airprox:

- CF1. The Lee-on-Solent AFISO had not been required to sequence or monitor the progress of either aircraft.
- CF2, CF3. Although the Van's RV7 pilot had been passed Traffic Information on the AW189 by the Bournemouth Radar controller, permitting them to gain visual contact with the helicopter, the AW189 pilot had been relying on their TCAS II display for situational awareness and had developed an inaccurate mental model of the relative position of the Van's RV7 and had thus been concerned by the perceived proximity of the Van's RV7.
- CF4. The TCAS II equipment fitted to the AW189 issued an RA, likely due to the lateral separation being <0.2NM.
- CF5. Although the Van's RV7 pilot was visual with the helicopter throughout, the position of the Van's RV7 (behind and above the AW189) hindered the AW189 pilot's view of the Van's RV7.

## **PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**

### Contributory Factors:

2021163				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Ground Elements</b>				
<b>• Situational Awareness and Action</b>				
1	Contextual	<ul style="list-style-type: none"> <li>ANS Flight Information Provision</li> </ul>	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service
<b>Flight Elements</b>				
<b>• Situational Awareness of the Conflicting Aircraft and Action</b>				
2	Contextual	<ul style="list-style-type: none"> <li>Situational Awareness and Sensory Events</li> </ul>	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, inaccurate or only generic, Situational Awareness
3	Human Factors	<ul style="list-style-type: none"> <li>Unnecessary Action</li> </ul>	Events involving flight crew performing an action that was not required	Pilot was concerned by the proximity of the other aircraft
<b>• Electronic Warning System Operation and Compliance</b>				

4	Contextual	• ACAS/TCAS RA	An event involving a genuine airborne collision avoidance system/traffic alert and collision avoidance system resolution advisory warning triggered	
• See and Avoid				
5	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other

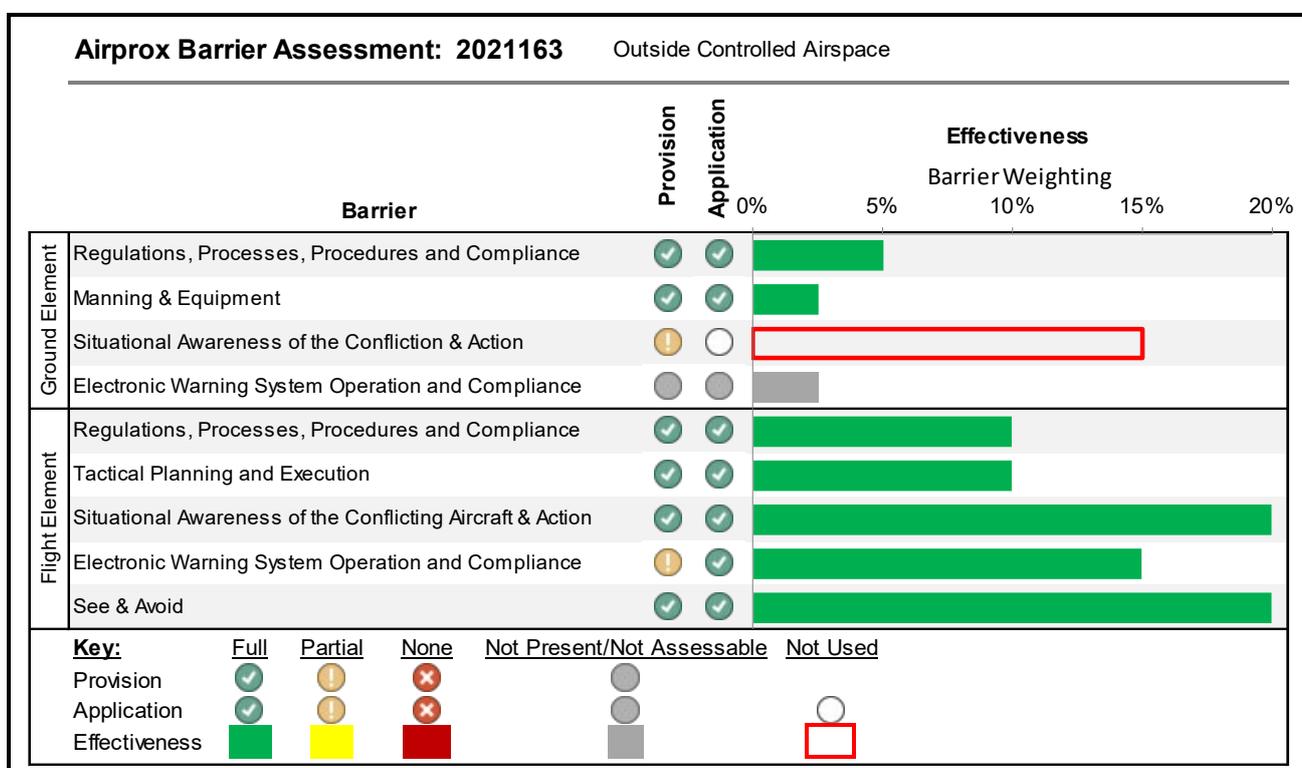
Degree of Risk: E

Safety Barrier Assessment<sup>4</sup>

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 Lee-on-Solent AFISO was not required to monitor either aircraft's flightpath.



<sup>4</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).