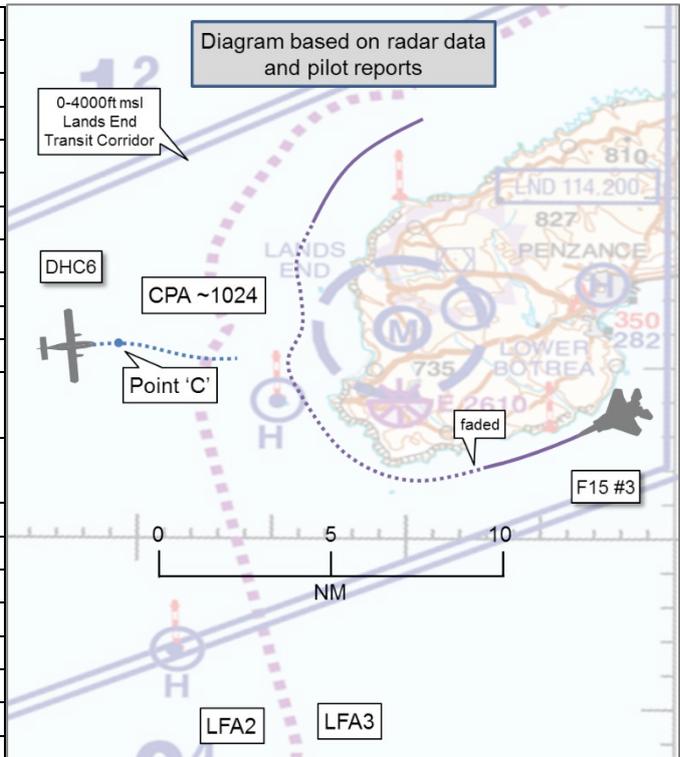


AIRPROX REPORT No 2018306

Date: 21 Nov 2018 Time: 1024Z Position: 5005N 00547W Location: Land's End

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	DHC6	F15
Operator	CAT	Foreign Mil
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Land's End	Newquay
Altitude/FL		
Transponder	State/Modes	State/Modes
Reported		
Colours	White, black, red, blue	Grey
Lighting	Nav, anti-col, strobes	Anti-col, nav
Conditions	VMC	VMC
Visibility	30km	30km
Altitude/FL	1000ft	1500ft
Altimeter	QNH (1005hPa)	Rad Alt
Heading	070°	020°
Speed	135kt	450kt
ACAS/TAS	TCAS II	Not fitted
Alert	None	N/A
Separation		
Reported	0ft V/0.5nm H	500ft V/2nm H
Recorded	NK	



THE DHC6 PILOT reports being inbound to Lands End. After handover to Lands End ATC at point Charlie (10DME LND), they were notified of two fast-jets routing around the coast with an approximate position as near the 'Land's End complex'. Both fast-jets were visually acquired, tracking south to north, and presented no conflict. As they were approaching Longships lighthouse, the second fast-jet was passing through their 12 o'clock when a third fast-jet was seen in the 2 o'clock at a similar level and in level flight from south to north in the Millbay area. It was then seen to turn away and out of conflict.

He assessed the risk of collision as 'Medium'.

THE F15 PILOT reports being No3 of a 3-ship flight on a low-level training sortie in LFA 2/3 in the vicinity of Land's End. At the time of the reported conflict the flight was in radio contact with Newquay Radar and received [Traffic Information] at approximately 10nm. The formation was in 3-ship stream with approximately 1.5-2.nm between aircraft. At 10nm the lead aircraft achieved radar contact on the conflict aircraft and advised the other 2 crews. The first two aircraft were able to 'manoeuvre' well in front of the conflict aircraft and achieved visual at approximately 5nm. The third aircraft, also visual at 5nm was unable to 'manoeuvre' behind the conflict aircraft due to 'low-fly airspace' ending 3nm offshore and low cloud preventing climb above the conflict aircraft. At 3nm they made an aggressive wing-rock to indicate visual acquisition to the conflict aircraft and an aggressive 45° right 'check-turn' to pass out of conflict at approximately 2nm.

He assessed the risk of collision as 'None'.

THE LAND'S END CONTROLLER reports that the Assistant took an information call from Culdrose at 1019 regarding 3 x F15 passing Culdrose along the coast and continuing around past the Land's End

area in 4-5min time, remaining outside the ATZ. At 1022, the DHC6 inbound to Lands End reported at the communication transfer point from Scilly Isles/St Mary's (point "C", LND 10 DME). The pilot was offered a choice of landing runway due to light winds and he elected for a straight in approach to RW07. At 1023, ATC reported visual with 2 x F15 along the coastline at low-level. The first was passing west abeam Lands End and the second was about 1nm behind the first. At 1024, the DHC6 pilot reported visual with the third F15, passing about ½ mile in front of him, at which time the ATCO also became visual. All 3 F15s were close to the coast at about 500ft, speed unknown, but they were considerably faster than the DHC6. None of the F15 aircraft were seen to make any avoiding actions and the DHC6 pilot didn't report them doing so either.

The controller opined that all the DHC6 pilots at Lands End are accustomed to busy Class G airspace. The coastline near Land's End is very popular with GA scenic flights and is a training area for Royal Navy and coastguard helicopters. All of which means that aircraft come into close proximity with each other on a regular basis. The ATCOs at Lands End are all experienced at integrating traffic into, out of and in the vicinity of the ATZ. Due to the relative speeds and positions of the F15s in relation to the DHC6, the ATCO did not feel that any of the aircraft involved reduced the safety margins that are regularly in place on a daily basis.

Factual Background

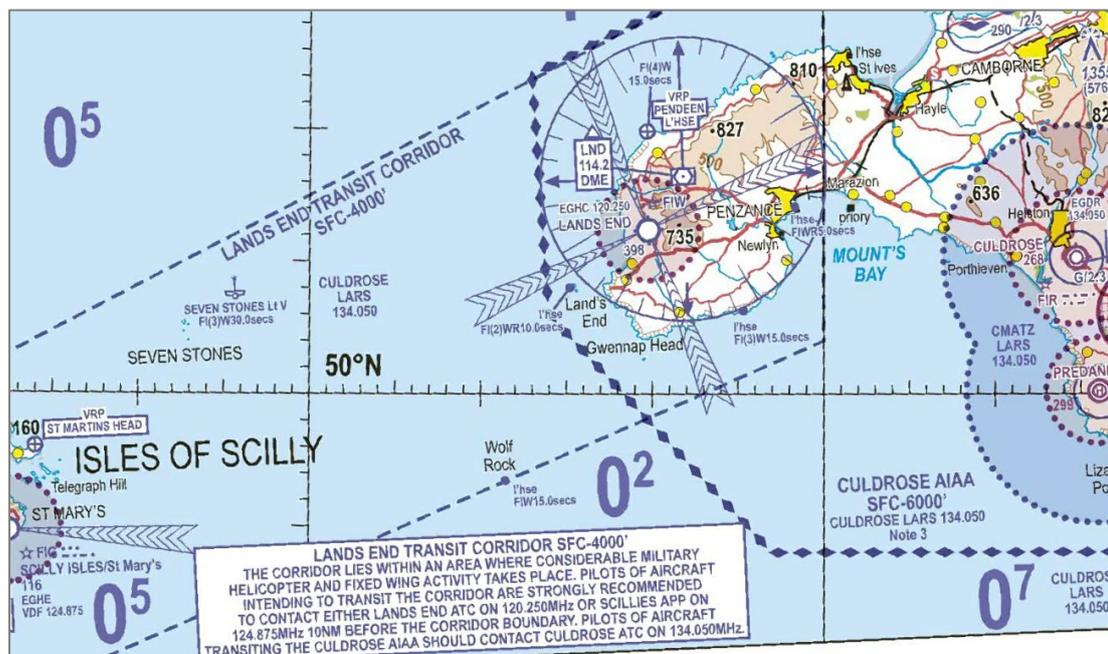
The weather at Lands End was recorded as follows:

METAR EGHC 211020Z 11008KT 9999 VCSH FEW012 SCT022 05/04 Q1005=

Analysis and Investigation

UKAB Secretariat

The DHC6 and F15 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as converging then the DHC6 pilot was required to give way to the F15². The CAA Southern VFR chart contains the following information regarding the Lands End Transit corridor:



Portion of the CAA VFR Southern Chart depicting the Lands End Transit Corridor

¹ SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

² SERA.3210 Right-of-way (c)(2) Converging. MAA RA 2307 paragraph 12.

Comment

USAFE

The F-15 formation lead was advised of the DHC6 by Newquay ATC and gained radar and then visual contact in time for the 3 aircraft that comprised the loose formation to avoid the DHC6 by a safe margin. It seems probable, however, that the DHC6 pilot did not see the “aggressive wing rock” made by the third F-15 pilot indicating his sighting of the DHC6.

This report has revealed a potential area of confusion: The Lands End Transit Corridor, as described above on the Civil VFR chart, is also shown on military low flying charts, although without any description. However, on page 2-2-3 of the UKMLFHB under LFA2, it is referred to as a Civil Helicopter Route to the Isles of Scilly, and not mentioned at all in the entry for LFA3, in which it also lies. Further, the corridor is not depicted on the UKMLFHB LFA3 chart (page 2-3-3).

It is of note that the formation’s base has been reminded that the UKLFS extends to the FIR boundary and that the ‘3nm limit’ dotted line shown in the UKMLFHB charts is only a depiction of the LFAs’ boundaries within which LF bookings are required.

Summary

An Airprox was reported when a DHC6 and an F15 flew into proximity near Lands End at about 1024hrs on Wednesday 21st November 2018. Both pilots were operating under VFR in VMC, the DHC6 pilot in receipt of a Basic Service from Lands End and the F15 pilot in receipt of a Basic Service from Newquay.

PART B: SUMMARY OF THE BOARD’S DISCUSSIONS

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

The USAFE advisor briefed the Board that although the F15 pilot was mistaken in his belief that the low-flying system ended 3nm offshore (and therefore he could have turned left if he wished), he had received Traffic Information on the DHC6, had sighted it at a range of 5nm, and his right ‘check-turn’ had entirely removed any risk of conflict. The Board discussed the F15 formation’s routing and agreed that it was entirely compatible with the Lands End transit corridor and that the F15 formation had had sufficient SA on the DHC6 to avoid it (although the Board noted that it was in fact for the DHC6 pilot to give way to the F15 if he considered it to be a converging threat).

Noting that the DHC6 pilot had considered the collision risk to be ‘Medium’, some members wondered whether the DHC6 pilot had been simply startled by the appearance of a third F15 when he had recalled that he had only previously been informed by Lands End ATC that they were visual with 2 F15s. Although the Board agreed that the Lands End controller might usefully have informed the DHC6 pilot that there were 3 F15s in the formation (as informed to them by Culdrose) rather than seemingly only informing him that they were visual with 2, the Board commended the Culdrose and Lands End controllers for their effective liaison and passage of information which had no doubt served to improve the situational awareness of the Lands End controllers. Ultimately, in the absence of radar data, it was not possible definitively to assess the separation at CPA but the Board were content that the F15 pilot had seen the DHC6 at sufficient range that there was no risk of collision. It was therefore agreed that this Airprox constituted a sighting report and that normal procedures, safety standards and parameters had pertained.

Finally, the Board noted the inconsistent documentation of the Lands End Transit Corridor within the UKMLFH as highlighted in the USAFE comment and were heartened that the HQ Air Command Low Flying Cell member had instigated action to correct it.

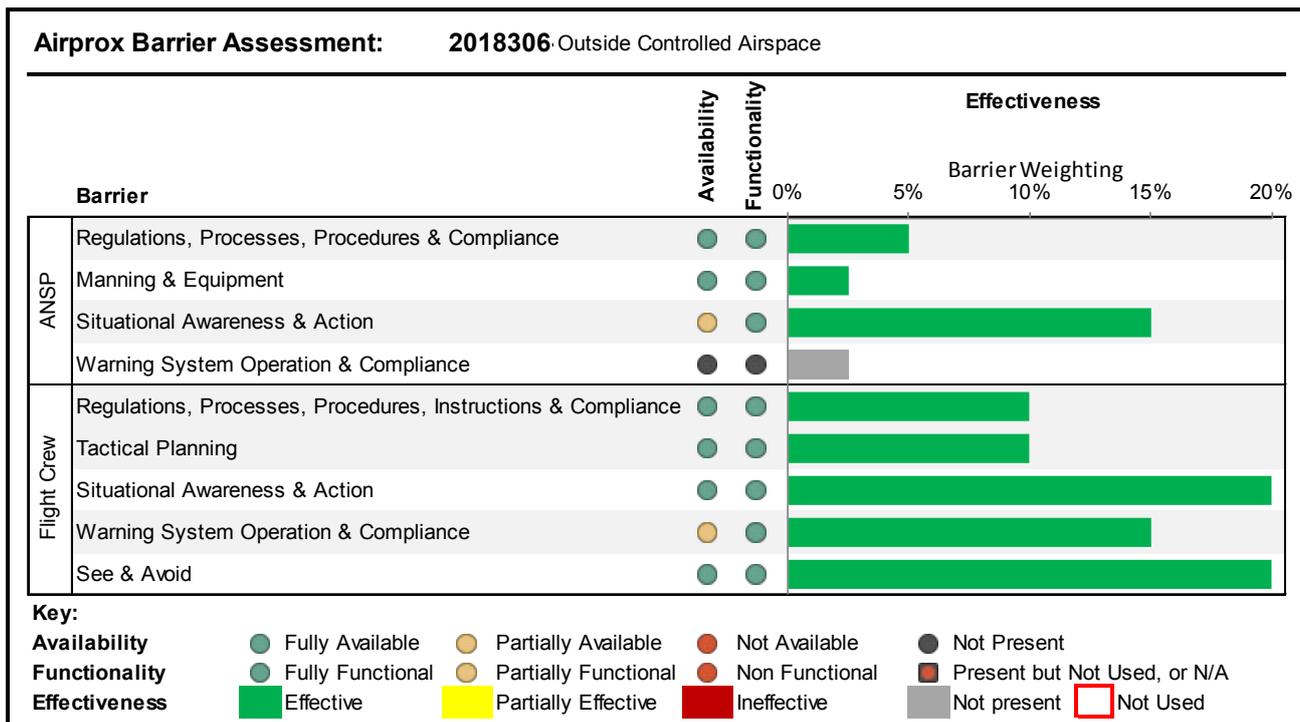
PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A sighting report.

Degree of Risk: E.

Safety Barrier Assessment³

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that all barriers had been effective, albeit that the lack of radar at Lands End had reduced the availability of SA to the DHC6 crew, and only the DHC6 was equipped with a TCAS/TAS.



³ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).