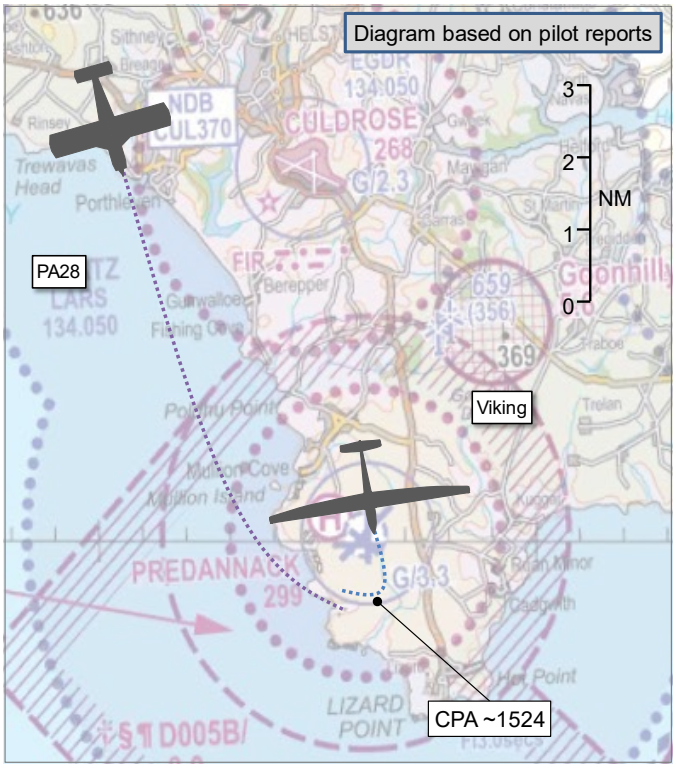
AIRPROX REPORT No 2023047

Date: 13 Apr 2023 Time: ~1524Z Position: 5000N 00513W Location: Predannack

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Viking	PA28
Operator	HQ Air Trg	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider		Newquay
Altitude/FL	NK	NK
Transponder	Not fitted	A, C, S
Reported		
Colours	White	White, Blue
Lighting	Nil	Strobe
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1350ft	1900ft
Altimeter	NR	QNH
Heading	270°	120°
Speed	55kt	100kt
ACAS/TAS	FLARM	Other
Alert	Unknown	None
Separation at CPA		
Reported	50-100ft V/300ft H	50ft V/100m H
Recorded	NK	



THE VIKING PILOT reports that, just after release at the top of the launch, they identified an aircraft to their right (2 o'clock), flying right-to-left, approximately 50-100ft above and 300ft lateral separation. Even though the aircraft appeared to be flying away, they immediately took avoiding action by commencing a turn to the right. The aircraft then appeared to enter a climb and subsequently contacted Predannack Radio (124.100MHz) to state that they were at 2000ft flying south. They noted that they assessed the incident as 'Medium' because they did not believe the other pilot saw them.

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

THE PA28 PILOT reports that they were conducting a trial lesson. Earlier in the day, they checked NOTAMs using SkyDemon for a dual navex with another student, which they thought would 'do' for the day. The route didn't actually cover the Airprox site so unfortunately they missed the NOTAM. They normally use a pre-set Narrow Route Brief on the NATS site which they checked after the incident and it did show the NOTAM. The major military airfield of which this site is a satellite was closed for the Easter break. However, as the route took them within the MATZ they did call but received no response, as expected. Normally, they would have obtained a MATZ penetration and ATC would have alerted them to any issue. However, even though the MATZ does not exist when [Culdrose] is closed, they took control of the aircraft from the student as they neared the ATZ to avoid flying within it, as is their standard practice when [Culdrose] is closed. As they neared the incident site, they were shocked to see gliders on the ground. Normally the ATZ for this site is inactive and they fly over it unless advised otherwise. They immediately changed to the discrete frequency for the site and contacted them to be informed that winch launching was taking place. They looked across in their 9 o'clock to see a previously unseen glider, which must have just come off the winch. It was starting a turn to the right, which would have made it pass behind them. They told the radio operator that they were leaving the area to the east and changed back to the LARS that they had been receiving. They informed Newquay that gliding was

taking place; [the controller] thanked them for the information. When they landed they found a phone message and called back to discuss the incident with the Officer Commanding. Learning points:

1. SkyDemon is a wonderful tool that they teach their students how to use as a part of their pre-flight planning and easy PLOG production. However it has limitations that need understanding, in this case only displaying NOTAM directly relevant to the flight, not other nearby activity.
2. When a normally open facility is closed, this creates an abnormal situation. This should, but didn't, create a heightened alertness for other non-normal activity.
3. In their past experience running events at normally closed airfields (aerobatic competitions) they are conscious that a NOTAM on its own is insufficient to prevent incursions.
4. In future, they will seek advance notice of gliding activity at this site, which only happens on 2 weeks of the year, and ensure this is promulgated to all local flying clubs and schools as an enhancement to the NOTAM system.
5. Their certificated panel mounted ADS-B 'in' system is of no value if other aircraft are using different systems. The CAA needs to mandate a single system everyone can use. If it's FLARM and it can be certificated then so be it, they'd fit it tomorrow. Either powered aircraft or gliders need to change but the CAA needs to make it happen. This is not an excuse for not keeping a good lookout but can enhance situational awareness.
6. Stick to a daily routine of obtaining the best NOTAM and weather information from official sources, don't assume that other sources are giving all the information.

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

THE NEWQUAY CONTROLLER reports that the PA28 pilot was on a Basic Service and they informed the pilot that Culdrose was closed. At the time they were not aware that gliding was taking place at Predannack. The incident was reported by the pilot by telephone later.

Factual Background

The weather at Newquay was recorded as follows:

```
METAR EGHQ 131520Z 27014KT 9999 FEW022 10/05 Q1006=
```

The following NOTAM was issued by Predannack:

```
(H1423/23 NOTAMN
Q) EGTT/QWGLW/IV/M  /W /000/034/5000N00514W007
A) EGTT B) 2304130800 C) 2304141700
D) 0800-1700
E) GLIDING. INTENSE ACT WI 6NM RADIUS 500007N 0051355W
(PREDANNACK, CORNWALL). FOR INFO 07769 930904 / 124.100MHZ.
2023-04-0210/AS4.
F) SFC G) 3400FT AMSL)
```

In April (the date of the Airprox) the UK AIP had the following information for Predannack:

PREDANNACK ATZ A circle, 2 NM radius, centred at 500007N 0051354W on longest notified runway (05/23) Upper limit: 2000 FT AGL Lower limit: SFC Class: G	CULDROSE	CULDROSE APPROACH English Mon-Fri 0800-1600 (0700-1500).	134.050 MHz ATC	Elevation: 299 FT AMSL. Hours of applicability for Rule 11 - See Column 3 Hours of Service.

Analysis and Investigation

Newquay ATC Investigation

The PA28 pilot was receiving a Basic Service from Newquay Radar. The controller confirmed with the pilot that Culdrose was closed (as per a telephone call from Culdrose to Newquay at 1502). The

PA28 pilot subsequently flew along the coast beyond Porthleven via an extended route that took the PA28 close to Predannack airfield, where (unbeknownst to the Newquay radar controller) gliders were operating.,

After passing Predannack, the PA28 pilot informed Newquay Radar that Predannack was active. In a subsequent phone call to the tower, the instructor of the PA28 declared that they, and the pilot of the other aircraft would be filing an Airprox.

All transmissions between [PA28 C/S] and Newquay APS:

[1502 ATCA to APS: Culdrose now closed]

1507 [PA28 C/S]: Newquay Radar [PA28 C/S] request Basic Service

1507 APS: [PA28 C/S] Newquay Radar squawk 1747 Basic Service, pass your message

1508 [PA28 C/S]: 1747 Basic Service PA28, 4 POB [departure airfield] to [destination airfield], via Mounts Bay along the coast back in at Porthtowan, Porthleven rather, back to [destination airfield] 1700 1006

1508 APS: [PA28 C/S] QNH 1006 correct and it's a Basic Service, Culdrose are closed

1508 [PA28 C/S]: CuIdrose closed, we'll call 122.1 just in case on our way past but otherwise we'll stay with you [PA28 C/S]

1508 APS: Roger

1520 [PA28 C/S]: Newquay [PA28 C/S] nothing heard Culdrose Tower we'll route in the MATZ but remain outside the ATZ.

1520 APS: [PA28 C/S] roger nothing showing on radar to affect*

1520 [PA28 C/S]: Thanks [PA28 C/S]

1524 [PA28 C/S]: Newquay [PA28 C/S] is at the Lizard now and unfortunately Predannack are active. I have called them

1527 APS: [PA28 C/S], roger thanks for letting me know.

1538 [PA28 C/S]: Newquay [PA28 C/S] north of Truro, back to [destination] [frequency redacted]

1538 APS: [PA28 C/S]roger squawk 7000 bye bye

1538 [PA28 C/S]: 7000 bye

*There was no sign of any activity at Predannack from Newquay radar recordings until a few seconds after [PA28 C/S] had passed south abeam Predannack eastbound, after which a PSR return was seen behind [PA28 C/S] for approximately 10 sweeps.

Conclusions:

CAP774 states:

> A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility.

> Basic Service relies on the pilot avoiding other traffic, unaided by controllers/ FISOs. It is essential that a pilot receiving this ATS remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight.

The route initially passed by [PA28 C/S] would not necessarily have warranted information about Predannack, even if the ATCO had known they were active, but on this occasion they did not.

On receipt of the phone call after the event describing the Airprox, the ATCO should have completed an incident report as per CAP493 Section 6.

Actions proposed by ATC unit:

A reminder to all Newquay ATCOs has been issued of the requirement to complete an incident report whenever they become aware of Airprox involving traffic they are providing a service to, and to inform unit management.

VGS Investigation

The 2 FTS aircraft had just reached the top of the launch and released, after which the pilot identified the aircraft in their 2 o'clock position. A check to ensure the airspace was clear had been correctly conducted prior to launch. During the launch, due to the launch attitude, it would not have been possible to identify the aircraft via lookout as the civil aircraft would have been beneath the fuselage in a blind spot. Immediately after launch and in the straight glide, the pilot identified the aircraft and made a correction so that there was no longer a converging course.

Very soon after, the pilot of the civil aircraft made an RT call to inform of their intentions and to state they were at 2000ft; however, the trace prior to this call and at the time of the incident showed that they were at approximately 1800ft calibrated altitude on FR24 (which is AMSL). Predannack is 299ft AMSL, which would equate to approximately 1500ft AAL, and ties-in with the Viking pilot's assessment of height.

After the event [the investigator] spoke with the civil pilot, who highlighted that they were not aware of any NOTAMs for Predannack activity, and nothing had been displayed on their SkyDemon App. There was a NOTAM in place for gliding activity and they identified they would re-look at their flight planning to understand why they may have missed it. The ATZ in the UK AIP ENR 2.2 actually ceases to be active at 1600L mid-week; therefore, this incident took place when the ATZ was not active. As such the pilot was operating in Class G airspace, although it is good airmanship to avoid gliding sites during times where launching is taking place.

In summary, the Viking pilot had just released from the top of the launch and did not have ample opportunity to see the other aircraft until release, after which use of lookout enabled the other aircraft to be identified and avoiding action taken. From the civil pilot side, it is apparent that they were not aware of activity taking place at Predannack, but it is not possible to know if they had seen the other aircraft. SATCO at Culdrose is investigating the possibility of extending the ATZ hours (as part of the DAATM ATZ AIP Review), for increased helicopter, RPAS and gliding activity.

UKAB Secretariat

An analysis of the NATS area radar replay was undertaken, unfortunately neither aircraft could be seen on the radar.

The Viking 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.[1]

[1] (UK) SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

Comments

HQ Air Command

'Flight in the Proximity of other Air Systems including Airspace/Circuit Incursions' is a specific risk to life managed by 2 Flying Training School. There are multiple barriers involved but it is acknowledged that there are weaknesses in some of those barriers; this Airprox exposed a compounding of these. The ATZ was closed at the time and so mitigation was only afforded by the smaller gliding site chart marking. The activity was NOTAM'd however, this was missed by the PA28 pilot. The Vikings are equipped with FLARM however, this is only effective against other FLARM equipped aircraft. SkyEcho 2, ADS-B out will be trialled for the aircraft in the near future and will go some way to broadcasting the Vikings' presence to a wider audience. Aircrew lookout was effective on this occasion. With the amendment of H24 to Predannack ATZ, this should alleviate this issue for this particular airfield.

AOPA

This Airprox demonstrates the importance of checking of route NOTAMs before flight; it also highlights the importance of ground staff to monitor the surrounding airspace whilst gliders are on the launch to inform the launching glider of any aircraft that may affect the safety of flight.

Summary

An Airprox was reported when a Viking and a PA28 flew into proximity at Predannack at around 1524Z on Thursday 13th April 2023. Both pilots were operating under VFR in VMC, the Viking pilot was not in receipt of an ATS and the PA28 pilot was in receipt of a Basic Service from Newquay.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, a report from the air traffic controller involved and reports from the appropriate operating authorities. 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.

The Board first discussed the actions of the Viking pilot. They had released from the top of the launch when they had seen the PA28 crossing ahead. The Board agreed that the CWS on the glider could not have detected the ADS-B or the transponder on the PA28 (**CF5**) and that the glider pilot had not received any prior warning from ground crew that the PA28 had been in the vicinity (**CF4**). Having seen the PA28 late (**CF6**), the pilot had managed to take avoiding action. The Board was heartened to hear from military members that there were plans in progress to fit the VGS gliders with ADS-B out, which would provide some additional warning on the gliders to other airspace users in the vicinity, but members noted that on this occasion ADS-B out would not have helped the Viking pilot detect the PA28 (although it may have provided the PA28 pilot with information on the Viking). Members with VGS experience noted that there would normally be a Duty Instructor (DI) on the ground who, aided by other ground crew members, would try to ensure the airspace was clear prior to launch. The Predannack investigation had not explicitly explained what measures the DI had at their disposal, but it was clear from the investigation that they had not been aware of the PA28 (**CF2**). Members briefly discussed whether some of the proprietary websites that displayed ADS-B data could have been used for information purposes, albeit that the data is not assured. Controlling members familiar with the area noted that, due to the proximity of the Culdrose MATZ, very little GA traffic normally routed in that area, and it had possibly taken the VGS ground crew by surprise that any traffic had been transiting past.

Turning to the actions of the PA28 pilot, members wished to acknowledge their frank and honest report and noted that the pilot had identified many of the measures that could be taken to mitigate the risk for the future. On this occasion, the pilot had planned thoroughly for a different sortie, but had changed their plan along the way and that planning had not included checking the NOTAMs for the Lizard area (**CF3**). Members expressed disappointment that the pilot's SkyDemon had not displayed the NOTAM, and whilst they could not know whether the pilot had it on a setting which reduced clutter, and therefore

information displayed, or not, they did note that it served as a reminder to pilots not to put all their reliance on one system, but to conduct a thorough pre-brief. When transiting past Culdrose, the pilot had made all the correct calls and, when they had not received an answer, had been lulled into thinking that if Culdrose had been closed, then Predannack would also not have been active. Members opined that it had been a missed opportunity that the PA28 pilot had not then called Predannack, because this would have given them the information that gliding had been taking place. However, they thought that it had not been unreasonable to assume that if Culdrose was closed then Predannack would also be inactive, because by that time of the day the ATZ had no longer been active (as published within the UK eAIP at the time of this Airprox). The Board agreed that the TAS in the PA28 had not been compatible with the CWS in the glider (**CF5**) nor had the pilot received a warning from ATC, therefore they had not received any prior situational awareness on the glider (**CF4**). The pilot reported that they had first seen gliders on the ground and then saw the Viking in their 9 o'clock, which the Board judged to be effectively a non-sighting because the pilot could not have done anything to increase the separation at that point (**CF7**).

The Board briefly looked at the actions of the Newquay controller. They had been providing a Basic Service to the PA28 pilot and therefore had not been required to have monitored the aircraft on radar (**CF1**). However, members were told that it was standard practice within Newquay ATC to print out all NOTAMs for the day and for controllers to familiarise themselves with them prior to starting their shift. Whether the controller on the day had not seen the Predannack NOTAM, or whether the NOTAM had not been printed, could not be ascertained but, whatever the reason, the controller appeared to have not been aware of the gliding activity (**CF2**). Members were heartened to hear that procedures have since been put in place for Predannack to notify Newquay ATC by telephone when they are active in future.

The Board noted that, as a result of this Airprox, Predannack had changed the activity status of their ATZ to H24. Members expressed concern at this and thought that it could be considered excessive that the military used such a measure to provide aviation security, particularly given that at this airfield gliding activity did not take place H24, and that because Culdrose ATC was not open H24 to provide a crossing service, this effectively closed the airspace to other users when Culdrose was closed. A CAA advisor told the Board that there was already ongoing work with the CAA and DAATM to address the issue across the Defence estates with a hope to encourage the MOD to move away from the practice. The Board was heartened to hear this and looked forward to hearing the outcome of this work.

When assessing the risk of the Airprox, without any radar screenshots the Board could only use the reports from both pilots. However, it was noted that both pilots had been similar in their estimation of the separation. The Board agreed that the description by the pilots, with the Viking pilot seeing the PA28 late, but taking action, and the PA28 pilot not seeing the Viking until at, or around, CPA, meant that safety had been much reduced (**CF8**); Risk Category B.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2023047			
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
2	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
	Flight Elements			
	• Tactical Planning and Execution			
3	Human Factors	• Pre-flight briefing and flight preparation	An event involving incorrect, poor or insufficient pre-flight briefing	

	• Situational Awareness of the Conflicting Aircraft and Action			
4	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
	• Electronic Warning System Operation and Compliance			
5	Technical	• ACAS/TCAS System Failure	An event involving the system which provides information to determine aircraft position and is primarily independent of ground installations	Incompatible CWS equipment
	• See and Avoid			
6	Human Factors	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
7	Human Factors	• Monitoring of Other Aircraft	Events involving flight crew not fully monitoring another aircraft	Non-sighting or effectively a non-sighting by one or both pilots
	• Outcome Events			
8	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

Degree of Risk: B.

Safety Barrier Assessment[2]

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 **ineffective** because the Newquay controller was unaware of the NOTAM detailing the gliding activity and the gliding DI on the ground at Predannack had no knowledge of the presence of the PA28.

Flight Elements:

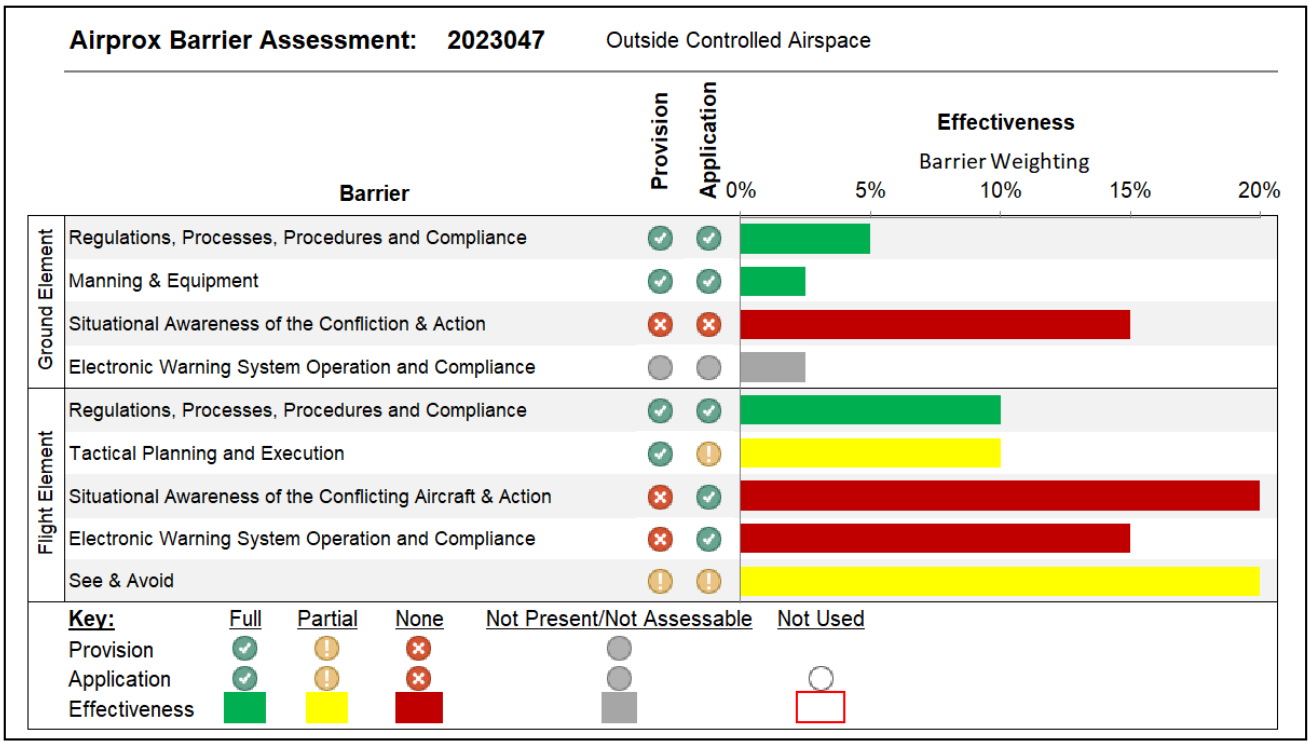
Tactical Planning and Execution was assessed as **partially effective** because the PA28 pilot had not seen the NOTAM detailing the glider activity at Predannack.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had received any situational awareness that the other aircraft had been in the vicinity.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the FLARM on the glider could not detect the transponder signals from the PA28.

See and Avoid were assessed as **partially effective** because the glider pilot had seen the PA28 late, but had managed to take avoiding action.

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


Airprox Barrier Assessment: 2023047
Outside Controlled Airspace
Barrier
Provision
Application
Effectiveness
Barrier Weighting
0%
5%
10%
15%
20%
Ground Element
Regulations, Processes, Procedures and Compliance
Manning & Equipment
Situational Awareness of the Confliction & Action
Electronic Warning System Operation and Compliance
Flight Element
Regulations, Processes, Procedures and Compliance
Tactical Planning and Execution
Situational Awareness of the Conflicting Aircraft & Action
Electronic Warning System Operation and Compliance
See & Avoid
Key:
Full
Partial
None
Not Present/Not Assessable
Not Used
Provision
Application
Effectiveness