

CAA CAP 1616 Options Appraisal Assessment (Phase III Final)

Title of airspace change proposal	St Athan ILS		
Change sponsor	The Welsh Government		
Project no.	ACP-2018-35		
Case study commencement date	06/11/2019	Case study report as at	07/07/2020

Account Manager: [REDACTED]	[REDACTED]	Airspace Regulator (Engagement & Consultation): [REDACTED]	[REDACTED]	IFP: [REDACTED]	[REDACTED]	OGC: [REDACTED]	[REDACTED]
Airspace Regulator (Technical): [REDACTED]	[REDACTED]	Airspace Regulator (Environmental): [REDACTED]	[REDACTED]	Airspace Regulator (Economist): [REDACTED]	[REDACTED]	ATM (Inspector ATS Ops): [REDACTED]	[REDACTED]

Instructions

To aid the SARG project leader's efficient project management, please highlight the "status" cell for each question using one of the four colours to illustrate if it is:

Resolved - GREEN
 Not Resolved – AMBER
 Not Compliant – RED
 Not Applicable - GREY

Guidance

The broad principle of economic impact analysis is **proportionality**; is the level of analysis involved proportionate to the likely impact from that ACP? There are three broad levels of economic analysis; qualitative discussion, quantified through metrics, and monetised in £ terms. The more significant the impact, the greater should be the effort by sponsors to quantify and monetise the impact.

1. Background – Identifying the Do Nothing (DN) /Do Minimum (DM) scenarios		Status
1.1	Are the outcomes of DN/DM scenarios clearly outlined in the proposal?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.1	<p>Has the change sponsor produced an Options Appraisal (Phase III - Final) which consists of the Full appraisal with any refinements or changes made as a result of the Stage 3 formal consultation with stakeholders? [E24]</p> <p>Yes, the Sponsor produced the Final Options Appraisal document which is a replication of the Full Options Appraisal with a minor administrative amendment to clarify the circling minima at St Athan as a result of Stage 3 formal consultation with stakeholders. The Sponsor explained that it remains unchanged and no circling approach is published and added that the missed approach at St Athan is unchanged and relies on national procedures i.e. climb straight ahead to 3000ft and contact ATC.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

2. Direct impact on air traffic control		Status			
2.1	Are there direct cost impacts on air traffic control / management systems? If so, please provide below details of the factors considered and the level in which this has been analysed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.1.1	<i>Examples of costs considered (please add costs that have been discussed, and any reasonable costs that the Airspace Regulator (Technical) feels have NOT been addressed)</i>				
		Not applicable	Qualitative	Quantified	Monetised
2.1.2	Infrastructure changes	X			
2.1.3	Deployment	X			
2.1.4	Training	X			
2.1.5	Day-to-day operational costs / workload / risks	N/A	X	N/A	N/A

2.1.6	Other (provide details)	X			
2.1.7	<p>Comments</p> <p>The sponsor stated if ILS procedures are withdrawn permanently, the ILS equipment would be decommissioned, with the associated costs and mentioned no additional infrastructure costs for the proposed scheme.</p> <p>In terms of the deployment costs, the sponsor only expects the proposed option would occur costs associated with producing CAP 1616 deliverables.</p> <p>The sponsor also clarified that no additional training is predicted for Option 1 although commercial airline pilots may have limited experience of flying VFR and may require an exemption from the AOC holder to fly a visual-only approach. For the proposed option, it is stated that there would be minimal routine training for pilots to ensure awareness of the newly-published procedures.</p> <p>The change sponsor indicates that there might be additional marginal costs associated with the increased workload and reduced capacity of NATS Cardiff ATCOs providing radar-vectors to aircraft inbound to St Athan but this is not considered to be significant. The sponsor stated in the case the proposal is approved, there wouldn't be any additional operational costs.</p>				
2.2	<p>Are there direct beneficial impacts on air traffic control / management systems?</p> <p>If so, please provide details and how they have been addressed:</p> <p>The change sponsor illustrated the negative impact of the current baseline option which is the permanent withdrawal of ILS from St Athan as the SoN identifies that no change is being proposed to the track, heights or slope of the ILS procedures previously published in the Mil AIP, nor to airspace structures or classification, nor to operational procedures. The sole aim of the sponsor with this airspace change is to enable the publication of the extant CAA-approved St Athan ILS procedures in the UK AIP and plus ILS equipment would remain serviceable and would be available to all operators including MRO customers.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
2.2.1	<i>Examples of benefits considered</i>	Not applicable	Qualitative	Quantified	Monetised
2.2.2	Reduced work-load	N/A	N/A	N/A	N/A
2.2.3	Reduced complexity / risk		X	N/A	N/A
2.2.4	Other (provide details)	N/A	N/A	N/A	N/A

2.2.5	<p>Comments</p> <p>The sponsor provided the conclusions from the Safety Assessment one of which is related to ATC; it is stated that providing radar vectors to commercial aircraft for a visual approach at St Athan is a non-standard procedure and more intense than providing vectors to intercept the ILS localiser. So, it is concluded that ILS procedures place less pressure on air traffic controllers and air crew.</p>	
2.3	<p>Where monetised, what is the net monetised impact on air traffic control (in net present value) over the project period?</p> <p>N/A</p>	
2.4	<p>Are the direct impacts on air traffic management analysed accurately and proportionately?</p> <p>Yes, the sponsor provided the qualitative proportionate analysis for air traffic management direct impacts. As the sponsor has only one option analysed against the baseline option and no major costs were anticipated in relation to the proposed option. So, the qualitative analysis for air traffic management is concluded to be sufficient and in line with the process.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

3. Changes in air traffic movements / projections					Status
3.1	What is the impact of the ACP on the following and has it been addressed in the ACP proposal?				<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		Not applicable	Qualitative	Quantified	Monetised
3.1.1	Number of aircraft movements		X	X	N/A
3.1.2	Type of aircraft movement	X	N/A	N/A	N/A
3.1.3	Distance travelled	X	N/A	N/A	N/A
3.1.4	Area flown over / affected	X	N/A	N/A	N/A
3.1.5	Other impacts	X	N/A	N/A	N/A
3.1.6	<p>Comments</p> <p>The Sponsor mentioned the questions raised by the operators who use St Athan MRO facilities regarding future viability of the airport for MRO due to the unavailability of ILS procedures and increased risk of diversion. The sponsor confirmed that without ILS procedures at St Athan, these flights would have to be undertaken at other airports which would then affect airports' MRO businesses.</p>				
3.2	Has the forecasting of traffic done reasonably using best available guidance (e.g. DfT WebTAG, the Green Book, Academic sources...etc?)				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>

There isn't any traffic forecast done reasonably but the sponsor only provided the traffic movements in the past (2014-2018) at St Athan as available below.

Year	UWAS	MRO	GA	Military	Heli	TOTAL
2014	5,106	93	1,573	1,025	3,280	11,077
	46.1%	0.8%	14.2%	9.3%	29.6%	100%
2015	4,852	118	1,815	791	571	8,147
	59.6%	1.4%	22.3%	9.7%	7.0%	100%
2016	7,302	110	4,621	750	2,532	15,315
	47.7%	0.7%	30.2%	4.9%	16.5%	100%
2017	7,464	41	4,670	659	2,200	15,034
	49.6%	0.3%	31.1%	4.4%	14.6%	100%
2018	7,385	117	3,651	201	1,830	13,184
	56.0%	0.9%	27.7%	1.5%	13.9%	100%
Average	6,422	96	3,266	685	2,083	12,551
Average %	51.8%	0.8%	25.1%	6.0%	16.3%	100%

Table 1 Aircraft Movement Statistics at St Athan

According to the data above, the sponsor stated although MRO aircraft arrivals only comprise around 1% of St Athan's annual movements, MRO operations are essential because the suspension of MRO operations resulted in a significant loss of revenue for the MRO companies and therefore sponsor mentioned the importance of MRO which is disproportionately high.

■ – The sponsor states that there are currently 15,000 movements at St Athans. Of these they state only 1% are MRO movements requiring use of the ILS. According to the sponsor this proportion is not anticipated to change in the future. This ACP is not intended or likely to result in a growth in movements. Rather the purpose of the ACP is to better enable civil traffic to access the relevant procedural information required to allow them to use the ILS, this information is currently only published as Military procedures, in the military AIP. No change to the forecast movements or the proportion of those movements requiring to use the ILS as a result of this ACP.

3.3	<p>What is the impact of the above changes (3.1) on the following factors?</p> <p>This ACP will allow procedural information relating to the ILS in place at St. Athens to be published in the Civil AIP, and made accessible to the Civil MRO traffic already forecast to use the airfield. There is not anticipated to be any change to the nature, traffic mix or orientation of traffic accessing the airfield. Therefore no change is expected to Noise, Fuel burn and emissions. Local air quality is not anticipated to be affected by this change of publication location. The nearest designated Air Quality Management Area is located 8.3m to the West of the airfield was designated as a result of road traffic emission influences and is highly unlikely to be affected by this change of publication location. There is no change anticipated to the location nature or orientation of the traffic using the airport so tranquillity will not be affected by the detail of this proposal.</p>				
		Not applicable	Qualitative	Quantified	Monetised
3.3.1	Noise	X			
3.3.2	Fuel Burn	X			
3.3.3	CO2 Emissions	X			
3.3.4	Operational complexities for users of airspace	X			
3.3.5	Number of air passengers / cargo	X			
3.3.6	Flight time savings / Delays	X			
3.3.7	Air Quality	X			
3.3.8	Tranquillity	X			
3.4	<p>Are the traffic forecast and the associate impact analysed proportionately and accurately according to available guidelines (e.g. WebTAG or the Green Book?)</p> <p>No change is anticipated to the overall forecast traffic as an outcome of this proposal which only changes the location where procedural information is published.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
3.5	<p>What is the total monetised impact of 3.3? (Provide comments)</p> <p>N/A</p>				

4. Benefits of ACP	Status
4.1	Does the ACP impact refer to the following groups and how they are impacted by the ACP?

		Not applicable	Qualitative	Quantified	Monetised
4.1.1	Air Passengers	X			
4.1.2	Air Cargo Users	X			
4.1.3	General aviation users		X	N/A	N/A
4.1.4	Airlines		X	N/A	N/A
4.1.5	Airports		X	N/A	N/A
4.1.6	Local communities	X			
4.1.7	Wider Public / Economy		X	N/A	N/A
4.1.8	Comments Please see the answers to Question 2.2. and 4.5.				
4.2	How are the above groups impacted by the ACP, especially (but not exclusively) looking at the following factors below:				
4.2.1	Improved journey time for customers of air travel	N/A			
4.2.2	Increase choice of frequency and destinations from airport	N/A			
4.2.3	Reduced price due to additional competition because of new capacity	N/A			
4.2.4	Wider economic benefits	Positive			
4.2.5	Other impacts	N/A			
4.2.6	Comments Please see the answers to Question 2.2. and 4.5.				
4.3	What is the overall monetised impacts associated with 4.1 and 4.2 the above? N/A				
4.4	What are the non-monetised but quantified impacts of the above? (Insert details of description) The sponsor provided the total annual movement numbers from 2014 to 2018 plus seasonal MRO movements for Apr-Aug in 2014-2019 to show the proportion of the total MRO aircraft movements which comprises only 1% of the total movements.				
4.5	What are the qualitative / strategic impacts described above?				

	The sole aim of the proposal is to enable the publication of the existing CAA-approved St Athan ILS procedures in the UK AIP which was previously published in the Mil AIP. It is stated that the primary users of ILS procedures are commercial aircraft arriving to use St Athan's Maintenance Repair and Overhaul (MRO) facilities and added that although they comprise only around 1% of St Athan's annual movements, aircraft for MRO have a disproportionately positive economic impact on the airport and surrounding area of South Wales.	
4.6	What is the overall monetised benefits-costs ratio (BCR) of the policy? Is it more than 1? N/A	
4.7	Have the sponsors provided reasonable justification for the proportionality of analysis above? Yes, the sponsor mentioned with the proposed option the aircraft tracks flown for an ILS procedure and a visual approach would be near identical without any impact on overall UK airspace plus no environmental impacts have been identified in relation to noise, CO2 emissions or local air quality. The sponsor claimed there is insufficient empirical data to support an economic impact assessment or to monetise the potential impact of either implementing the proposal or 'do nothing'. This is concluded to be in line with CAP 1616 and the level of evidence is found sufficient due to Level 2C airspace changes as the process requires the qualitative assessment only in case the sponsor anticipates a positive impact with the proposed change and this has been duly provided by the sponsor.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.8	If the BCR is less than 1, are the quantitative and qualitative strategic impacts proportional to the costs of the ACP? N/A	

5. Other aspects	
5.1	N/A

6. Summary of Assessment of Economic Impacts & Conclusions	
6.1	The sole aim of the proposal is to enable the publication of the existing CAA-approved St Athan ILS procedures in the UK AIP which was previously published in the Mil AIP. It is stated that the primary users of ILS procedures are commercial aircraft arriving to use St Athan's Maintenance Repair and Overhaul (MRO) facilities and added that although they comprise only around 1% of St Athan's annual movements, MRO operations have a disproportionately positive economic impact on the airport and surrounding area of South Wales. This has been evidenced by examples of commercial airlines who were using St Athan's MRO facilities but then have taken their business due to the lack of ILS. The total loss of revenue is predicted approximately over £1 million and the sponsor stated if procedures are published in the UK AIP, there will be no change and the airport will continue to be an attractive proposition to existing and potential future MRO customers.
Outstanding issues?	

Serial	Issue	Action required
1	-	-
2		

CAA Final Options Appraisal Assessment Completed by	Name	Signature	Date
Airspace Regulator (Technical)	[REDACTED]	[REDACTED]	07/07/2020
Airspace Regulator (Economist)	[REDACTED]	[REDACTED]	08/11/2019
Airspace Regulator (Environmentalist)	[REDACTED]	[REDACTED]	11/11/2019