**HIGHLANDS AND ISLANDS AIRPORTS LTD
AIR TRAFFIC MANAGEMENT STRATEGY 2030**

Technology Assurance Review, Assurance of Action Plan
25 - 26 OCTOBER 2021

Report status	FINAL
Date(s) of review	25/10/2021 to 26/10/2021
Draft report issued to Digital Assurance Office and Senior Responsible Owner	26/10/2021
Final report issued to Digital Assurance Office and specified distribution	04/11/2021
Stop/Go Recommendation (note – Stop/Go recommendation not applicable as Programme is already paused (excepting Sumburgh) pending re-set.)	N/A
Delivery Confidence Assessment (note – DCA reflects current re-set of Programme rather than programme team performance)	AMBER/RED
Senior Responsible Owner	[redacted name] Chief Operating Officer, Highlands and Islands Airports Ltd
Accountable Officer	[redacted name] Managing Director, Highlands and Islands Airports Ltd
Investment Decision Maker	Investment Decision Management Board (IDMB), Transport Scotland
Scottish Government's Portfolio Accountable Officer	[redacted name] Director General, Economy

1. Purpose and Conduct of the Review

1.1 Purpose of the Review

1.1.1   The purpose of this Review is to assess the robustness and effectiveness of the ATMS programme team actions to address the recommendations made in the ATMS Programme Health Check carried out in January 2021.

1.1.2   In so doing the Review Team (RT) consider the context in which the recommendation actions had been/are being carried out, together with the significant changes in circumstances which now apply to this Programme.

1.2 Conduct of the Review

1.2.1   The Assurance of Action Plan was carried out from 25/10/2021 to 26/10/2021 by video conference.

1.2.2   The Review Team members and the people interviewed are listed in Appendix B.

1.2.3   The Review Team would like to thank the SRO, the ATMS Programme Team and all interviewees for their support and openness, which contributed to the Review Team's understanding of the project and the outcome of the review. Our thanks also to [redacted name] and [redacted name] for their support and assistance with the logistics and administration of this review.

2. Review of Action Plan

2.1 Recommendation 1

The Programme Director should ensure that, if not already set up, project boards for each project are set up, reporting into the programme PMO.

2.1.1   The Programme has reviewed the need but determined that the current arrangements where all projects report into a single project board chaired by the Programme Director is unchanged. Project activity is largely paused at present whilst a decision on alternative options is made. The RT consider that this recommendation stands as good practice and should be applied to any future Programme project structure.

2.1.2   RT view is that this recommendation has been considered but currently remains OPEN.

2.2   Recommendation 2

The Programme Director should provide the programme PMO with a clear remit, roles and responsibilities and seek advice on best practice for the structure of a programme PMO.

2.2.1   Since the previous review in January 2021 the Programme has recruited an experienced Head of Programme Management Office (PMO) who has conducted an audit of current processes and implemented beneficial changes. This is described as being included in the HIAL Project Management Manual (PMM). In the version of the PMM seen by the RT as part of this review (version 1.2 June 2020) there is no specific reference to a PMO or its role and responsibilities.

2.2.2   The RT is pleased to note that the Head of PMO is further developing the draft ATMS specific PMM. The PMO is mentioned but not a description of the PMO role and remit.

2.2.3   The RT is assured to find that a suitably experienced and skilled individual is now in charge of the PMO. However, we note that the level of resource available to the PMO is still less than will be needed once the revised Programme delivery option and direction is determined. In addition, the role and remit of the PMO should be specifically recognised in the PMM to ensure clarity.

2.2.4   The RT consider that this recommendation has been partially addressed and should be considered OPEN until the ATMS PMM is updated to include specific reference to the PMO.

Recommendation 1: The SRO should ensure that the ATMS specific PMM includes a specific reference to the role and remit of the PMO.

2.3   Recommendation 3

The Programme Director should review the consistency and adequacy of documentation at project level across all projects.

2.3.1   This action was considered as part of the HIAL audit carried out by the Head of PMO. The RT is assured that a comprehensive review of documentation was carried out and that suitable templates are set out as part of the HIAL PMM. We are pleased to note that the Head of PMO is now monitoring the use of the templates by projects and has also instituted a regime of version control on documentation.

2.3.2   The RT consider that the action is complete and the recommendation can be considered CLOSED.

2.4   Recommendation 4

The SRO should ensure that the programme develops an overarching Programme Resource Plan with a cascade down to discrete Project Resource Plans for each project. In particular, there is an urgent need to develop a resource plan for the current RTS procurement and the next stage of delivery.

2.4.1   The Programme reports having taken action to ensure all projects have a resource plan and these are brought together in the ATMS Resource Tracker. The RT saw evidence of a comprehensive Resource Tracker covering the year 21/22 to 23/24 but note that this will need to be revisited once the new Programme scope and direction of travel has been determined. In addition, reference to Programme resource is made in the draft ATMS Programme Management Plan (MQ update) referenced in para 2.1.4. This document will also need to be updated to reflect the new Programme scope when known.

2.4.2   In consideration of the current review of delivery options, resource needs will need to be re-considered depending on the outcome of that deliberation. However, concerns remain as to the adequacy of baseline resource. The RT notes that insufficient resource is one of the "Common Causes of Project/Programme Failure" cited by the National Audit Office and Infrastructure Projects Authority (IPA). Failure to allow for sufficient resource will pose an ongoing risk to successful delivery of ATMS.

2.4.3   The RT considers that the resource requirement should be revisited once the revised Programme direction and scope are known. This recommendation should be considered CLOSED for the scope of work to which it applied.

RECOMMENDATION 2: The SRO should ensure that the resource need for the Programme is revisited once the revised scope and direction of travel is known.

2.5   Recommendation 5

The Programme Director should establish a clear Risk Management Hierarchy with an overarching Programme Risk Register that "flows down" and back from the individual Project Risk Registers. There should be a clear Risk Management Strategy as a discrete document and this should be managed through the Programme PMO.

2.5.1   The Head of PMO has instituted a review of the Programme Risk Management process and there is a clear tracker of planned risk review meetings for 2021. No discrete Risk Management Strategy was evident but the Risk Management process is described in the HIAL and the draft ATMS (section 6.1) PMMs.

2.5.2   The RT is content that this recommendation has been adequately addressed and should be CLOSED.

2.6   <u>Recommendation 6</u>

The Programme Director should review the suitability of the programme current IMS both for detailed use and as a vehicle for informing senior management on progress.

2.6.1   The RT has seen evidence of a Level 3 schedule which has been developed and introduced as a result of the Programme response to this recommendation. The current Level 3 programme is based on an initial view of the Option 3 solutions that are being developed for consideration by the HIAL Board and Transport Scotland. It currently shows a Programme completion of August 2026.

2.6.2   The RT is content that this recommendation has been appropriately addressed and should be CLOSED.

2.7   <u>Recommendation 7</u>

The SRO should ensure that the approvals and escalation routes for decision making on the programme are formally documented and, where appropriate, aligned with and referenced to those of the HIAL organisation, for example the Framework Agreement, matters reserved for the Board and more delegated authorities, to avoid unnecessary delays. Access to the HIAL Framework Agreement and other corporate documents should be made easily accessible to all. Where these are contained in a number of documents consideration should be given to consolidating them in a summary form or providing links for ease of access.

2.7.1   The current approvals and escalation routes are historic. As a result of the Health Check Review, a review of these is currently underway, including Transport Scotland. At the time of this Assurance of Action Plan this is a work in progress. No specific timeline has been agreed for completion.

2.7.2   The RT commends the Programme for its action thus far. This recommendation is considered CLOSED in its current form. The question of appropriate approvals and escalation routes should be re-considered through future assurance when project delivery restarts.

2.8   <u>Recommendation 8</u>

The SRO should commission the programme to set up either an ODA to "balance" the SDA and ensure that Operational needs are fully considered in any changes or combines both functions into one Design Authority

2.7.1 The principal of having an Operational Design Authority (ODA) alongside the Systems Design Authority (SDA) is established. At this stage, the ODA consists of one individual, the current Air Traffic Control (ATC) lead. Because of the recent pause on the Remote Tower Solution (RTS) and other projects, the function of ODA has not yet been tested and future development remains to be determined. There is a concern that this pause in activity may create a risk of loss of that individual. In any event, to be effective the ODA needs to be broader in its skills base and to include business input and elements of systems capability.

2.7.3 There now needs to be a plan for ongoing maturity of the function of the ODA with additional membership needs identified. The relationship between then ODA and the SDA also needs to be defined and documented in the PMM.

2.7.2 The RT consider the recommendation to have been completed in its current form and should be CLOSED.

Recommendation 3: The SRO should ensure that a plan for further maturing of the now established ODA function is put in place. This should include further membership, definition of the remit of the function and its relationship to the SDA, and documentation of same in the Programme PMM.

2.9   Recommendation 9

The SRO should ensure that the processes for approval and sign off on the programme are formalised; where necessary aligned to the HIAL organisational processes and where necessary amended to meet the needs of the programme. These should then be published and made accessible to existing and new programme members as well as HIAL staff to ensure full visibility and transparency.

2.9.1   The HIAL Board has agreed the processes for approval and sign off for the programme. In addition, the RT understand that the financial sign off delegation for the SRO and Programme have been raised. The processes are now defined and documented in the draft ATMS PMM which should be circulated once finalised.

2.9.2   The RT consider that this recommendation has been sufficiently addressed and should be considered CLOSED with a new recommendation that the ATMS PMM should be circulated comprehensively when finalised.

Recommendation 4: The SRO should ensure that the ATMS PMM should be circulated comprehensively when finalised.

2.10   Recommendation 10

The SRO should ensure that the governance structure for the Programme is reviewed, fully documented and approved. The document should clearly detail the relationship between the Programme, the HIAL Board and Transport Scotland. Where necessary the document should reference other key documents detailing key governance arrangements between HIAL and key governance groups/stakeholders that are relevant to the programme. The SRO should also initiate an annual review of governance effectiveness. This should include a review of the membership of the programme board and other governance groups to ensure it continues to be relevant.

2.10.1   An overall governance structure review is ongoing, including discussions with Transport Scotland.

2.10.2   The decision to cancel the RTS and pause the Centralised Surveillance Centre (CSC) procurements together with other projects in the ATMS Programme, has resulted in a request from the HIAL Board and Transport Scotland for a further review of alternative options. This is currently targeted for the December HIAL Board for decision in the first instance.

2.10.3   To meet the above deadline and support fast, flexible decision making, the Programme has introduced an interim governance structure of a focused Steering Committee (Programme Level) meeting weekly and a separate Sub Committee of the HIAL Board, meeting every 2 weeks. Interviewees felt that this interim structure is working well and could provide the basis of a model for future governance.

2.10.4   On the HIAL Board, the Transport Scotland representative has been changed. The new attendee is a Non-Executive understood to have extensive experience at senior level in the industry. This is viewed as a positive move. The principal of regular governance reviews has been accepted.

2.10.5   The RT is assured that the recommendation has been sufficiently addressed and should be considered CLOSED.

2.11   Recommendation 11

The SRO should ensure that ample time is allowed for the evaluation preparation phase, including provision for "dry runs" to reinforce embedding of the training provided. Resources should be fully committed to the evaluation activity and time blocked out in diaries to ensure sufficient uninterrupted focus.

2.11.1   The Programme action to address this recommendation demonstrates a positive intention. From interviews, the RT is assured that sufficient resource was allocated for sufficient time to ensure a

robust evaluation process for the RTS procurement. The "dry run" was constrained to a briefing on the process and what was expected on the first morning of evaluation period due to lack of time.

2.11.2   The principles of "ring fencing" of resource and time allocation for a full "dry run" should be embedded in HIAL Procurement Manuals and the ATMS PMM for complex procurements in the future.

2.11.3   The RT consider that the spirit of the recommendation was addressed and that this recommendation should be CLOSED.

Recommendation 5: The Programme Director should ensure that the principles of "ring fencing" of resource and time allocation for a full "dry run" should be embedded in HIAL Procurement Manuals and the ATMS PMM for complex procurements in the future.

2.12   Recommendation 12

The SRO should ensure that the programme provides clear instructions on the internal assurance process to be followed and use the DAO independent reviews at key stages of the major procurements – prior to issuing the ITT, before award of contract and a series of Delivery review before commissioning of a service into BAU. For RTS there should be at least one review during implementation and a review prior to transition of RTS into each airport.

2.12.1   The Programme has reviewed its assurance processes and is in the process of agreeing with DAO a series of regular (quarterly) meetings and developing an integrated assurance plan.

2.12.2   The RT saw evidence of the draft plan as provided in documentation and is content that this recommendation is being sufficiently addressed and can be considered CLOSED.

3.   Assurance of Action Plan Conclusions

3.1   Conclusion

3.1.1   The Programme has responded positively to all the recommendations made in the January 2021 Health Check Review. The RT considers that 10 of the 12 recommendations should now be considered closed.

3.1.2   However, since the last review a number of significant events have crystallised which have resulted in the need for the Programme to pause activities (with the exception of Sumburgh Radar which is in the final stages of delivery) pending a review of available alternative delivery options and a decision from HIAL Board and Transport Scotland.

3.1.3   It has become evident from the RTS procurement and the SCS RIBA 3 design that the Programme is, in its current form, exceeds the programme budget.

3.1.4   The current RTS procurement has been cancelled following a review that also included the broader impacts of COVID, other developments within HIAL's operating environment, and the discussions with the Trade Union on the delivery of the ATMS programme.   Tenderers were advised of this on 25/10/21. A new procurement will need to be run depending on the final option selected.

3.1 5 Prior to the cancellation of the RTS procurement, the ongoing industrial action by the Air Traffic Control Officers was suspended (from 12 noon on 25/10/21). A framework for discussion has been agreed that will focus on provision of surveillance services from a Combined Surveillance Centre in Inverness, alongside the remote provision of Inverness Remote Tower services, and the local tower service provision at other HIAL airports.

3.1.6 The Programme is now heavily engaged in working through the detail of options to present to the HIAL Board and subsequently to the Transport Scotland IDMB. Much will depend on the option finally selected which could also be the "Do Nothing" option. The RT notes that, even if this option is chosen there will still need to be expenditure to replace/refurbish existing aging assets.

3.1.7 The RT consider that the Programme has responded very positively to the recommendations, closure on some of which is not in the Programme's control. We commend the focus and speed with which actions have been initiated.

3.1.8 The actions taken to complete the recommendations from the health check on 25/10/21 would, in normal circumstances, resulted in a Delivery Confidence of AMBER against the original programme scope as the programme is in a better position to move forward. However, due to the current uncertainty on the exact future scope and the significant cost, governance, and regulatory hurdles that any new proposal are likely to face, the RT view is that, pending a further health check on the Programme under the new scope when determined, the overall delivery confidence assessment should be retained at AMBER/RED. Had the RTS procurement been able to proceed to award of contract, actions taken by the Programme against the Health Check recommendations would have resulted in a re-calibration of the Delivery Confidence to AMBER.   The RT note also that delivery of the Sumburgh Radar is ongoing and not affected by the pause on the other areas of the ATMS programme.

3.1.9 The RT would also like to note that the AMBER/RED rating is in no way a reflection on the programme team or leadership or the response to the recommendations of the health check. Rather it reflects the circumstances in which the Programme now finds itself.

3.1.10 The RT has made additional recommendations to guide the programme in achieving best-practice delivery. These will be considered as part of further health check activities on the new scope.

3.1.11   The RT notes however, that there remain a number of significant risks for the Programme in whatever form it finally takes. Principle amongst these is lack of sufficient resource in the Programme Team, particularly at administrative and support levels. There is also a risk of delay in making the decision on how to go forward which would lead to a serious loss of momentum and morale amongst the Programme Team and could lead to loss of critical and scare skills and experience.

Recommendation 6: The SRO should emphasis to the HIAL Board and Transport Scotland the critical importance of an early decision on the way forward, together with the need to ensure that the Programme has sufficient resource to support successful delivery in future.

3.2   Project Status

3.2.1   The Review Team recommend that the programme should *proceed to the next stage (see para 3.2.3 below)*. Where a "Stop" recommendation has been given the specific recommendations which must be addressed prior to a review of this status are highlighted within the Summary of Recommendations at Appendix A.

3.2.2   The RT note that the Sumburgh Radar project element of the ATMS Programme is still delivering and not affected by the pause on the remaining ATMS scope.

3.2.3   In the case of the ATMS scope affected by the current pause, the "next stage" is the re-set of the Programme scope.

3.3   Delivery Confidence Assessment

3.3.1   The Review Team finds that the overall delivery confidence assessment is **Amber/Red** in consideration of the current pause on activity whilst alternative options are considered. *Had the programme progressed in its original form the rating would have been Amber in terms of its improved ability to deliver.*

3.3.2   The RT recommends that a further Health Check be undertaken once the new scope and direction of the Programme is approved in order to assess readiness to move forward and re-affirm the business case.

3.3.3   The RAG status definitions are shown at Appendix C.

Recommendation 7: The SRO should consider a further Health Check once the new scope and direction of the Programme is

approved in order to assess readiness to move forward and re-affirm the business case.

3.4   Observed Good Practice

3.4.1   Strong Programme leadership and direction

3.4.2   Active Lessons Learned culture

4.   Next Technology Assurance Review

4.1   Date of the next Technology Assurance Review

4.1.1   The next Technology Assurance Review, Health Check (incorporating elements of Pre-Procurement) review on the RTS is recommended in Q2 2022 when the new Programme scope and direction of travel has been determined and signed off by the HIAL Board and Transport Scotland

5.   Distribution of the Technology Assurance Review Report

5.1.1   The contents of this report are confidential to the Digital Assurance Office (DAO) and owned by them. It is for the DAO to consider when and to whom they wish to make the report (or any part of it) available, however Senior Responsible Owners will be consulted regarding the distribution of the report and are free to distribute the final version of the report to the programme/project team, as deemed appropriate, to enable governance obligations to be met.

5.1.2   The DAO will copy the full report to the project's Accountable Officer and also to the Scottish Government's Internal Audit Division and Portfolio Accountable Officer where these are relevant.

5.1.3   The DAO will provide a copy of the report to the Review Team Members involved in any subsequent review as part of the preparatory documentation needed for Planning Meetings.

5.1.4   Freedom of Information and any other requests for copies of the report should be directed to the DAO at DigitalAssurance@gov.scot.

Appendix A - Summary of Recommendations

Ref. No.	Report section heading	Recommendation	Status (critical / essential / recommended)
R1	2.1	**The SRO should ensure that the ATMS specific PMM includes a specific reference to the role and remit of the PMO.**	Essential Within one month
R2	2.1	**The SRO should ensure that the resource need for the Programme is revisited once the revised scope and direction of travel is known.**	Essential – as soon as the Programme has a firm scope
R3	2.1	**The SRO should ensure that a plan for further maturing of the now established ODA function is put in place. This should include further membership, definition of the remit of the function and its relationship to the SDA, and documentation of same in the Programme PMM.**	Essential Within 3 months
R4	2.1	**The SRO should ensure that the ATMS PMM should be circulated comprehensively when finalised**.	Recommended
R5	2.1	**The Programme Director should ensure that the principles of "ring fencing" of resource and time allocation for a full "dry run" should be embedded in HIAL Procurement Manuals and the ATMS PMM for complex procurements in the future.**	Essential Within 3 months
R6	3.1	**The SRO should emphasis to the HIAL Board and Transport Scotland the critical importance of an early decision on the way forward, together with the need to ensure that the Programme has sufficient resource to support successful delivery in future.**	Critical Before the December 21 HIAL Board and Transport Scotland IDMB
R7	3.3	**The SRO should consider a further Health Check once the new scope and**	Recommended

Ref. No.	Report section heading	Recommendation	Status (critical / essential / recommended)
		direction of the Programme is approved in order to assess readiness to move forward and re-affirm the business case.	

Each recommendation has been given Critical, Essential or Recommended status. The definition of each status is as follows:

Critical   The recommendation requires to be actioned before the project can be given approval by the Digital Assurance Office to move to the next stage of the project.

Essential   The project should take action to address the recommendation before the next Technology Assurance Review or by a timeline specified by the report.

Recommended   Potential improvements can be made and the project should plan this activity into their future work to a timeline specified by the report.

The DAO will write to the Senior Responsible Owner following receipt of the report to confirm whether the Review Team's recommendations have been accepted, and, where this is the case, to ask for Appendix to be updated with the intended actions for addressing each recommendation. Thereafter the Senior Responsible Owner is responsible for implementing the actions in response to the recommendations. If the review has identified serious deficiencies or difficulties (including probable failure to meet the planned budget), the DAO will arrange a Review Meeting with key stakeholders.

Appendix B - Review Team and Interviewees

Review Team

Review Team Leader	[redacted name]
Review Team Members	Not applicable
	Not applicable

List of Interviewees

Name	Organisation/Role
[redacted name]	HIAL Chief Operating Officer, ATMS Programme SRO
[redacted name]	ATMS Programme Director
[redacted name]	ATMS Programme Management Office Lead
[redacted name]	ATC and Operational Analysis Lead
[redacted name]	HIAL, Procurement Advisor
[redacted name]	HIAL, Finance Advisor
[redacted name]	HIAL, Head of ICT and Digital Transformation

Appendix C - Guidance

RAG Status Definitions

RAG	Criteria Description
GREEN	Successful delivery of the project/programme to time, cost and quality appears highly likely and there are no major outstanding issues that at this stage appear to threaten delivery.
AMBER/ GREEN	Successful delivery appears probable however constant attention will be needed to ensure risks do not materialise into major issues threatening delivery.
AMBER	Successful delivery appears feasible but significant issues already exist requiring management attention. These appear resolvable at this stage and if addressed promptly, should not present a cost/schedule overrun.
AMBER/ RED	Successful delivery of the project/programme is in doubt with major risks or issues apparent in a number of key areas. Urgent action is needed to ensure these are addressed, and whether resolution is feasible.
RED	Successful delivery of the project/ programme appears to be unachievable. There are major issues on project/ programme definition, schedule, budget required quality or benefits delivery, which at this stage do not appear to be manageable or resolvable. The project/programme may need re-baselining and/or overall viability re-assessed.