

FAREHAM

BOROUGH COUNCIL

Report to the Executive for Decision 07 March 2022

Portfolio:	Policy and Resources
Subject:	Investment Programme for Solent Airport, Daedalus
Report of:	Director of Planning and Regeneration
Corporate Priorities:	Maintain and extend prosperity

Purpose:

To agree a programme of investment at Solent Airport, Daedalus to undertake essential maintenance and to extend the services that the airport offers to its customers.

Executive summary:

Investment is required in the Council's assets at Solent Airport, Daedalus to enable its continued safe operation and to continue to deliver the Council's Vision to develop a vibrant and sustainable airfield. The proposed programme of investment in hangarage, taxiways, aircraft parking, navigation aids and fuelling facilities will provide facilities and services that will support existing airside activities and improve the airport's competitive position by removing some of the identified operational capacity constraints.

Recommendations:

It is recommended that the Executive agrees that:

- (a) the Interim Managed Hangarage Scheme, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme in 2022/23 to provide a short-term solution to the provision of managed hangarage at Solent Airport;
- (b) the Economic Hangars Scheme previously approved by Executive be removed from the Capital Programme and a plan for replacement new managed hangarage be developed by 2025;
- (c) the Taxiway Improvement Scheme, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme in 2023/24 to ensure the continued safe operation of the airport;
- (d) the Aircraft Parking Scheme, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme to provide hard-standing aircraft parking on the grass area north of the Control Tower;
- (e) the Aeronautical Ground Lighting and a Performance-based Navigation System Scheme, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme in 2023/24 to extend the airport's use during periods of poor visibility and darkness;
- (f) the provision of self-fuelling facilities, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme in 2022/23 to provide a more convenient service for fuelling aircraft;
- (g) the provision of a Grounds Maintenance facility, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme in 2022/23; and
- (h) the Director of Planning and Regeneration, following consultation with the Executive Member for Policy & Resources, be delegated authority to award contracts for each of the above Schemes.

Reason:

Investment is required both to ensure the continued safe operation of the airport and to maintain and grow the airport's competitive position by removing some of the identified operational capacity constraints.

Cost of proposals:

The total cost of the recommended Airport Investment Programme is estimated at £4.69M, the details of which are outlined in the Confidential Appendix A attached to this report.

Appendices:**A: CONFIDENTIAL** Solent Airport Investment Programme

B: CONFIDENTIAL Solent Airport Strategic Review
Report 1 – Market Outlook and Economic Impact of COVID-19
Airport Development Advisory Fund, March 2021

C: CONFIDENTIAL Solent Airport Strategic Review
Report 2 – Investment Plan
Egis, July 2021

Background papers: None

Reference papers: None

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BOROUGH COUNCIL

Executive Briefing Paper

Date:	07 March 2022
Subject:	Investment Programme for Solent Airport, Daedalus
Briefing by:	Director of Planning and Regeneration
Portfolio:	Maintain and extend prosperity

INTRODUCTION

1. Daedalus airfield was decommissioned in 1996 and fell into disrepair until it was acquired by the public sector a decade later. The airfield was mainly used for general aviation purposes without an aerodrome licence and comprised principal and secondary runways, taxiways, aprons and buildings, including an Air Traffic Control tower and several hangars. In the early 2010s, most of the buildings had reached the end of their useful life.
2. In Autumn 2014, £1.5M of runway improvements and other taxiway improvement works were carried out and, as a result, the airfield successfully secured an Aerodrome Licence from the Civil Aviation Authority and obtained Border Force approval for overseas flights to/from the EU, Isle of Man and Channel Islands.
3. In March 2015, Fareham Borough Council acquired the site and developed a Vision and Strategy for its regeneration, which was further updated in 2018. The Vision is comprehensive and extends across the whole 369-acre site, incorporating not only the airport itself but also unlocking the potential of the airfield's land and infrastructure assets for new commercial development, providing clusters for aviation and non-aviation employment and skills, training and innovation activity areas alongside the Council's partners in the Solent Enterprise Zone. Specifically, the objective for the airfield was to attract more corporate and commercial aviation activities and to be financially self-sustaining.
4. Today, Solent Airport supports a range of aviation activities including private fixed-wing flying, flying schools, helicopter movements as well as aircraft manufacture, aircraft maintenance and other employment activities that require airside facilities. HM Maritime and Coastguard Agency also operates its Search and Rescue helicopter service (SAR) from the airfield. Regional & City Airports Limited (RCA) is the Airport Operator.

INVESTMENT IN SOLENT AIRPORT

5. A high-level capital expenditure plan was identified in 2015 to support the priorities identified in the Council's Vision. As such, nearly £28M has been spent on the whole Daedalus site since 2015. At Solent Airport itself, around £11M has been invested since

2015 in runway resurfacing, the development of the airfield fuel farm, the development of six new business hangars and five new general aviation hangars, the refurbishment of the ground floor of the Control Tower, the development of an airport café and viewing area and security improvements.

6. In 2021, the Council commissioned expert advisors to support a strategic review of the Council's activities at Solent Airport, specifically on the impact of the UK's COVID-19 response on the aviation market and on the level of investment required at the airport to maintain and extend its service offer. Both reports are attached to this report as confidential appendices.
7. In summary, the consultants' advice is that Solent Airport should focus on improving its General Aviation offer and that investment is required both to ensure the continued safe operation of the airport and to maintain and grow the airport's competitive position by removing some of the identified operational capacity constraints. This investment will help secure the current airport activity and increase revenues, making the airport more sustainable. Without investment, the airport may struggle to remain operational.
8. During consultation undertaken by the consultants, several current tenants and users of the airport expressed a wish to remain at Solent in the long term, also noting that their own planned investments in the site were contingent upon an assurance that the airport would remain a viable operating airport in the long term. Without investment by the Council in the airport itself, there is a risk that current aviation tenants will leave Solent, relocating to alternative airports with greater operational capabilities and that potential users will elect to locate elsewhere.
9. As a result, a £4.69M programme of investment in the airport is proposed and outlined as follows:

Airport Investment Programme	2022/23	2023/24	2024/25	2025/26
	£	£	£	£
Managed Hangarage	105,000			
Taxiway Maintenance		2,700,000		
Aircraft parking	200,000			200,000
AGL/PBN	1,300,000			
Self-Fuelling Facility	25,000			
Grounds Maintenance Facility	160,000			
Total	1,790,000	2,700,000		200,000

10. The estimated costs above have been reached through extensive dialogue between the consultants, Egis, the Council's Airport Operator, RCA, and Council officers, supported by soft-market testing. The estimates include sums for fees, preliminary works and contingency and do not reflect the expected tender prices. Actual costs will be refined as each project progresses through the contract tendering stage.

Managed Hangarage

11. There is strong demand for managed hangarage at Solent Airport. Around 24 aircraft are in managed hangarage and there is typically a waiting list, particularly in the summer months. Managed hangarage is currently offered in Q, T, P and U on Swordfish (all old hangars) and the General Aviation Hangars 15 and 16 are in use as temporary managed hangarage.

12. The old aircraft hangars on the airfield are in very poor condition and are reaching the end of their useful life, with the exception of Bellman 1 that has been made safe by its tenant. Bellman 4 is currently not in useable condition. The ultimate fate of the old hangars including Bellman 4 is yet to be decided and, because they are located on the site identified for Swordfish Business Park, the Council has been reluctant to invest public funds in these buildings when they may be demolished. However, it is clear that the demand for managed hangarage must be satisfied, both for the important revenue stream to the Council and to support the airport's general aviation offer.
13. There are no other options for managed hangarage until a new scheme is developed. The Economic Hangars scheme, approved by the Executive in January 2020, which is a terrace of three hangars and a single hangar, to be located in the south-east of the site has paused, firstly because tendered costs were in excess of £1M against an agreed capital budget of £600K, and secondly because three of the four proposed hangars required a bird mitigation solution. Planning permission for one lightweight aircraft hangar was granted in April 2021 and expires after three years. While a bird mitigation solution could now be offered for the remaining hangars, the work on the strategic review of the airport has highlighted that a different location for new managed hangarage might be preferable.
14. Given the above considerations, it is considered more prudent at this stage to undertake essential repairs to some of the old hangars and extend their life for a further five or so years than proceed with this capital scheme.
15. The proposed medium-term strategy for managed hangarage is to:
 - Maintain space for at least 24 existing aircraft in managed hangarage on the site identified for Swordfish Business Park in the short term, returning GA hangars 15 and 16 to tenanted use
 - Develop a new plan for replacement new managed hangarage that allows for the commercial development intended on Swordfish Business Park
 - Increase managed hangarage where there is a business case
16. The existing hangars in use on Swordfish are not big enough to meet the demand for managed hangarage alone, accommodating 15 aircraft in total currently. It is recommended that Bellman 4 and one of the other hangars are repaired to bring them into a safe and usable condition for an additional five or so years to meet the demand.
17. It is uneconomic to repair Hangar Q. This hangar should be demolished awaiting the Masterplan for Swordfish Business Park.
18. The capacity of each hangar can be increased by investing in an aircraft tug. It also resolves a manual handling issue for the operator. In total, 32 aircraft could be accommodated in Bellman 4 and Hangar U together using the aircraft tug. This would likely meet any additional demand for managed hangarage in the short term, without the need to repair hangars T and P. It is recommended that Hangars T and P be closed temporarily, awaiting additional demand for managed hangarage in the short term. Investing in the Tug would also provide scope to accommodate a further nine aircraft in refurbished Hangars P and T, should the demand for managed hangarage be even stronger than predicted.
19. It is evident that there is a risk that not investing in managed hangarage will result in a

reduced revenue stream and in managed hangarage customers relocating to other airports. General Aviation Units 15 and 16 are more valuable to the Council as leased/tenanted units than managed hangarage and thus there is an opportunity cost to their continued use. Confidential Appendix A sets out the business case that supports this strategy and demonstrates a payback period of approximately 12 months. As such, it is recommended that this Interim Managed Hangarage Scheme, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme.

20. A new medium-term plan for replacement new managed hangarage will be developed within the next five years before the interim investment proposed in this report reaches its end of life.
21. It should be noted that the above recommendation deals solely with the continued provision of managed hangarage at the Airport. Officers will bring forward plans to increase leased and tenanted hangarage, such as that offered in the Business and General Aviation Hangars, where there is demand and a clear business case.

Taxiway Maintenance

22. Investment in the taxiways is required to ensure the continued safe operation of the airport. Taxiways are an important part of any airport's infrastructure and without them an airport cannot exist. The primary driver for this investment is to ensure the longevity of the taxiways at the airport and reduce the risk of safety infringements, such as break-up of the taxiway surface with consequent Foreign Object Debris (FOD) issues.
23. Solent Airport is one of the oldest developed airfields in the UK, having originally been established as a seaplane base during the First World War and then developed as Royal Naval Air Station Lee-on-Solent (HMS Daedalus) into one of the primary shore airfields of the Fleet Air Arm. The taxiway system was hardened into asphalt and developed throughout the Second World War and into the 1950s. Thus, the original construction was high quality in order to support fast jet operations and, whilst there has been deterioration of the taxiways since the RNAS was decommissioned, the base structure of most of the taxiways is of a reasonable quality. However, when the airport was decommissioned, it became largely derelict.
24. In 2014, a comprehensive condition survey and intrusive taxiway testing was carried out. As a result, the main runway was resurfaced and some of the other taxiways were treated with slurry seal, with the rest remaining untreated. This decision was taken to reduce initial capital costs as well as avoiding wasted investment, given that the Masterplan for the Airport was still maturing.
25. There have been no significant works undertaken to the active taxiways since 2014. Consequently, they are in a generally poor condition. Without investment, it is likely that some areas of taxiway will have to be taken out of service over the next few years, which may impact on the operation of the airport.
26. The works to the main runway have a 15-year life. Slurry seal has a design life of 5-6 years and so most of the areas treated in 2014 require a further application. Investment is required as soon as possible so that vegetation removal, bituminous over-banding, slurry seal and patch repairs can be undertaken and the need for urgent, expensive repairs or complete closure of some taxiways can be avoided.
27. A costed Programme of Works to undertake safety improvements to the active taxiways has been compiled by FBC Property Services, based on a Schedule of Works agreed

with RCA following the 2021 Taxiway Inspection and subsequent joint inspections. The estimate is based on a number of sources of information: quantity surveyor estimates, quotations received from contractors for reactive works and recent costs of similar works at Bournemouth Airport. It is the best estimation of the likely cost with the knowledge available at the time of preparation. Final figures will be influenced significantly by global oil and energy costs at the time tenders are submitted.

28. All the works identified and costed are required without delay. The contract award process for this work will take around 9-12 months and some materials can only be laid in the spring and summer months. Thus, much of the capital spend will likely be from Spring 2023 onwards and a single tender will encompass all the works, spread over a period of 18 months or so. In view of this, further work is required around the likely extent of deterioration in the intervening period and its acceptability, to determine whether it is necessary to accelerate any works in advance of the main contract being let.
29. It should be noted that the Egis report on the Airport Investment Plan in 2021, attached as Confidential Appendix C, recommended that changes to the taxiway infrastructure at Solent Airport be considered, specifically that a new link between taxiways Foxtrot and Echo be constructed. The potential for taxiway reconfiguration, which would also consider the future of Taxiway Bravo in the context of the proposed Swordfish Business Park, will be assessed in due course; however general and extensive repairs are required now and cannot wait for this scoping work to be completed.
30. This programme of taxiway improvements is required to ensure the continued safe operation of the airport and there is no additional revenue stream which can be achieved as a result of this investment. As such, there is no conventional business case to support the recommendation. However, without investment at this scale, it is evident that some areas of taxiway may need to be taken out of service over the next few years, which may impact on the operation of the airport and on the Council's income from airside activities and property. Confidential Appendix A sets out the implications should this work not be undertaken. It is recommended that this Taxiway Improvement Scheme, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme.

Aircraft Parking

31. The existing grass area north of the Control Tower and to the south of Taxiway Foxtrot is used for aircraft parking. It has deteriorated, despite significant maintenance, through subsidence with ruts and low spots developing. Several propellor strikes have occurred. In addition, the condition of the grass is such that only certain areas can be used during the winter months. As a minimum, work is required to replace and re-compact the earth and replace the grass.
32. However, the airport is short of aircraft parking space, particularly for visitors, and providing more year-round accessible parking would support the growth and development of the airport. The main tower apron ramp is too small to meet the need for visiting aircraft parking space and there is limited parking space on other areas of the airfield for visiting aircraft. Hardstanding space that does exist is remote from the Tower and it is difficult to service and manage visitors. Moreover, larger planes cannot use grass parking because of their weight.
33. As such, it is recommended a phased programme is introduced to provide hard standing on the grass area north of the Control Tower that can be used year-round for

aircraft parking. Confidential Appendix A sets out the business case that supports this strategy and demonstrates a payback period of 14 years. This proposal will require planning permission and will test the bird mitigation strategy agreed at the Executive meeting in December 2021.

34. It is recommended that this Aircraft Parking Scheme, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme to provide hard standing aircraft parking on the grass area north of the Control Tower in two phases in 2022/23 and 2025/26, and that the situation be reviewed after 2026 to determine whether more investment is required in future years.

Aeronautical Ground Lighting (AGL) and Performance-Based Navigation (PBN)

35. The Council's Daedalus Vision and Outline Strategy has an objective to improve the infrastructure and facilities at the airfield, making it more attractive to visitors and to new business. In particular, the installation of Aeronautical Ground Lighting (AGL) to enable ground navigation of aircraft in hours of darkness or low visibility is highlighted.

36. An AGL system is a collection of ground-installed lights intended to be used as visual aids by aircraft pilots. The lights assist pilots landing during hours of darkness or in periods of low visibility. AGL supports the increase of airport movements through the attraction of more traffic during periods of low cloud, poor visibility and in darkness. An AGL system has already been assessed for the runway at Solent Airport.

37. The Airport's planning permission has a Condition to restrict not only the total number of aircraft movements at Solent Airport to 40,000 per annum, but also the hours of operation:

"The total number of aircraft movements at the site shall not exceed 40,000 per annum. With the exception of emergency related movements associated with the Maritime and Coastguard Agency Search and Rescue service which may operate 24 hours a day there shall be a maximum of 10 aircraft movements a day after sunset, with no aircraft movements between the hours of midnight and sunrise"

38. With AGL and PBN, operators will benefit from more flexibility to plan operations at the airport knowing that, if they run late for example, they will still be able to land. During the winter period, operations at the airport currently cease at dusk, typically 16:30. AGL will also help to grow demand from existing operators as well as being able to attract new operators, subject to the 10-movement limit per day imposed for such operations. Analysis of Aeronautical Information at all UK airfields indicates that the provision of airfield lighting is a fundamental requirement of airport operations in almost all cases where paved runways are in use.

39. The Performance-based Navigation (PBN) concept specifies that aircraft navigation system requirements be defined in terms of the accuracy, integrity, continuity and functionality required for the proposed operations (in this case as an approach aid). The concept enables similar accuracy in terms of navigational guidance without the need to invest in more expensive ground-based infrastructure such as an Instrument Based Landing approach system (ILS). It specifically enables prescribed flight paths which can be designed such that aircraft are able to follow a non-precision approach into an airport, necessary for instance in periods of low cloud or poor visibility. The prescribed paths also help when it is necessary to define routes avoiding particular areas, for instance to reduce the impact of noise disturbance on a particular local community, or avoidance of military or restricted airspace.

40. While it is possible to offer Aeronautical Ground Lighting without a Performance-Based Navigation system, the latter is relatively low cost and augments the Aeronautical Ground Lighting. These systems and procedures would increase the operational viability of the airfield and increase the usable capacity of the airport by extending the periods during which the airport can safely be used, especially outside the summer months.
41. Confidential Appendix A sets out the business case that supports this investment and demonstrates a payback period of between 6 and 24 years, based on different commercial risk and reward scenarios. While the cost of implementing an AGL system can be significant, it is considered vital for developing aeronautical operations at the airport. The implementation of such a system would also likely attract new tenants to the airport whose operations rely on this level of flexibility. This proposal will also require planning permission and will again test the bird mitigation strategy agreed at the Executive meeting in December 2021.
42. It is recommended that the installation of Aeronautical Ground Lighting and a Performance-based Navigation system, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme.

Self-Fuelling Facility

43. High demand for fuel during the summer periods often results in a queue being formed because there are a limited number of fuel bowsers currently in use at the airport. Users have reported significant delays to refuelling aircraft of up to 40 minutes. This can result in a loss of fuel revenue to the airport if they choose to fuel elsewhere.
44. Self-fuelling facilities would provide airport users with the ability to self-serve fuel through the installation of pumping stations in a convenient location on the airfield. Competitor airports such as Popham and Biggin Hill already offer self-serving fuel facilities. There may also be additional advantages, based on the experience of other airports, such as increased control of late payments and a significant reduction in fuel man-hours due to fuel not needing to be delivered by trucks.
45. Confidential Appendix A sets out the business case that supports this investment and demonstrates a payback period of 4 years. It is recommended that the installation of self-fuelling facilities, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme.

OTHER RELATED INVESTMENT

46. The Council's team has been providing the grounds maintenance service at the airport for several years. During this time, temporary welfare and equipment storage facilities have been provided. Once Daedalus Common returns to the Council from National Grid, who are responsible for its provision as a requirement of the planning permission for IFA2, a permanent grounds maintenance facility will be required. Again, this proposal will require planning permission and will further test the bird mitigation strategy agreed at the Executive meeting in December 2021.
47. Confidential Appendix A sets out the cost and proposed funding mechanism for the provision of this facility and it is recommended that the provision of a Grounds Maintenance facility, as outlined in the Confidential Appendix A attached to this report, be added to the Capital Programme.

OTHER POTENTIAL INVESTMENTS

48. Confidential Appendix C sets out a range of other potential investments that could improve the safety, services or facilities at the airport, such as expanding the control tower visibility, taxiway reconfiguration, additional office space for training companies and a heritage facility. These, in addition to the new medium-term plan for replacement new managed hangarage, will be further considered and reported to Members in due course.

FINANCIAL IMPLICATIONS

49. The Daedalus Finance Strategy sets out the framework that determines the Council's approach to managing the financial implications of its interest in the Daedalus site, reflecting the ongoing revenue position and capital investment requirements both on the airside and non-airside areas. It is anticipated that there are sufficient capital resources to source the proposed investment plan at Daedalus.
50. The current capital programme includes a site-wide investment budget for 2022/23 of £545,300, funded from the remaining Homes and Communities Agency grant received when the Daedalus site was acquired. It is proposed that the Interim Managed Hangarage, Aircraft Parking and Self-Fuelling Facility schemes for 2022/23, totalling £330,000, is funded from this budget.
51. It is anticipated that there will be sufficient Daedalus-related capital receipts to fund the Taxiway Maintenance, AGL/PBN and the Aircraft Parking scheme in 2025/26, totalling £4.2M.
52. The Grounds Maintenance facility is proposed to be funded from S106 contributions from National Grid relating to the IFA2 Planning Application.
53. There will be no significant additional revenue implications from the proposals as all the business cases have been calculated on predicted receipts net of additional costs.

CONCLUSION

54. Investment is required in the Council's assets at Solent Airport, Daedalus to enable its continued safe operation and to continue to deliver the Council's Vision to develop a vibrant and sustainable airfield. The proposed programme of investment will provide facilities and services which will support existing airside activities and improve the airport's competitive position by removing some of the identified operational capacity constraints.

Enquiries:

For further information on this report please contact Sarah Ward, Head of Strategic Sites (Ext 4668)