

Agenda Item	13
Report No	ECI/27/2023

HIGHLAND COUNCIL

Committee: Economy and Infrastructure

Date: 4 May 2023

Report Title: Highland Council Airfields

Report By: Executive Chief Officer Infrastructure & Environment

1 Purpose/Executive Summary

1.1 This report provides Members with an update on:-

- the current condition of the Highland Council's three general aviation airfields;
- an overview of the risks and opportunities, associated with each airfield; and
- recommendations for Members as to the next steps to be taken

1.2 The Council owns and operates three airfields at Ashaig, Dornoch and Plockton. These operate as unlicensed, unmanned aerodromes and have no Air Traffic Control/Flight Information Service or Rescue / Fire Fighting services available. Full background information has been provided below under sections 4.3-4.5

2 Recommendations

2.1 Members are invited to:-

- Note** that the current resource committed to the operation and maintenance of the airfields is not sufficient to meet all of the maintenance liabilities and legal requirements;
- Note** that in light of this a decision is required as to the future operation and management of Dornoch, Plockton and Ashaig airfields;
- Approve** a Risk Register presented as **Appendix 1** and the ongoing plan to address and reduce risk across the airfields e.g., by updating signage and repairing boundary markers;

- iv. **Approve** the implementation of online PPR system at Ashaig and Dornoch, based on the conclusions presented in **Appendix 2**;
- v. **Agree** that the Council should continue to operate Ashaig airfield in a manner which meets all necessary legal obligations and ensures the airfield is maintained to a level which will support operation of commercial services, until such time as further developments with regards to scheduled air services are made;
- vi. **Agree** that The Council should seek to offer a lease on Dornoch airfield to one of the interested parties in the local community; and
- vii. **Agree** that The Council should explore opportunities for either the sale or the long-term lease of Plockton airfield.

3 Implications

- 3.1 **Resource** – The expenditure and income at each of the sites differs year on year depending on usage and income generated by one-off events. Expenditure over the past four years has averaged at £7,848 and insurance costs are circa £9,500 per annum. The average annual income over the same period is £6,663, meaning that all THC airfields are running at a significant annual loss.
- 3.2 **Legal** – The Council has no statutory duty to operate or facilitate the operation of airfields. This report identifies a number of legal risks arising to the Council as a result of failure to meet all good practice as set down in *CAP 793: Safe Operating Practices at Unlicensed Aerodromes* (see Section 5 and **Appendix 3**). In addition, existing legislation and guidance the *Scottish Outdoor Access Code* may be used in ensuring the continued safe and legal operation of the airfields.
- 3.3 **Community (Equality, Poverty, Rural and Island)** – The airfields directly support remote and rural communities within the Highland Council region to access emergency healthcare, by providing safe and convenient access for emergency services responding to incidents. They also support a small measure of tourism activity, which directly supports the local economy and sustains local facilities and services.
- 3.4 **Climate Change / Carbon Clever** – General Aviation by its nature is not Carbon Friendly. However, usage of the airfields is low, and no scheduled services currently operate, therefore current carbon footprint is low/minimal. There are some future opportunities in the Advanced Air Mobility (AAM) sphere which could enable increased usage by low-carbon aircraft.
- 3.5 **Risk** – See section 3.2. A Risk Register is included in **Appendix 1**. A full review of the Council's current compliance with recommendations in *CAP 793* is included in **Appendix 3**. Current practice is increasing The Highland Council (THC) exposure to liability.
- 3.6 **Gaelic** – None arising from this report.

4 Background: Highland Council-owned airfields

- 4.1 The Highland Council (THC) owns three airfields at Dornoch, Plockton and Ashaig (Isle of Skye). THC is the airfield Operator at Dornoch and Ashaig while Plockton is leased out to a 3rd party (PDG Helicopters). The airfields operate as unlicensed aerodromes and are unmanned. There are no Air Traffic Control / Flight Information Service facilities and no Rescue / Fire Fighting Services available.
- 4.2 In 2021, a specialist aviation consultancy, Northpoint Aviation, was contracted to provide a comprehensive review of the three airfields owned and operated by Highland Council. This report provides a summary of the key findings, identified risks, and further actions required as a result.

These reports, and discussions with Legal colleagues, have identified that the current resource committed to the operation and maintenance of the airfields is not sufficient to meet all of the maintenance liabilities and legal requirements.

Local Members were briefed on the findings of the Northpoint Aviation report and more recently Members were consulted on next steps for each of the local airstrips.

In light of the findings of this report and subsequent discussions with local Members, the Council must now make a decision with regards to the future operation and management of the three airfields:-

- a. to continue to operate to the current level, with sufficient resource made available to meet all relevant liabilities;
- b. to reduce operations and maintenance activities to a minimum, in order to preserve the core assets using the resource presently available; and
- c. to seek alternative management arrangements for the airfields, securing an income for the Council and reducing its liabilities.

4.3 Ashaig

The airfield was constructed by the Corps of Royal Engineers and opened in 1972 to serve as a gateway to the Isle of Skye. Loganair operated a scheduled service from the airfield to Glasgow between 1972 and 1988. It is currently used by a flying club, visiting aircraft and the emergency services.

The asphalt runway has dimensions of 771m long x 23m wide. The aircraft working area is lit and is covered by CCTV. There is a clearly marked yellow restricted area, which is exclusively for emergency services use and must remain clear at all times. Vehicle access to the airfield is restricted, requiring prior permission, however, parking is available outside the entrance.

Maintenance to the runway and outhouse buildings is undertaken by the Council as and when required. Previous proposals for commercial flight operations have been put on hold due to the Covid-19 pandemic and the impact on the aviation sector.

Extensive work has been undertaken over the past two decades on the business case for scheduled air services from Ashaig by a range of organisations. As a result of the impacts of COVID-19 and upcoming changes in the aviation field (e.g., hydrogen / battery-electric aircraft coming on to the market), much of this work needs to be revisited.

However there is a continued appetite both within the local community, and amongst partner agencies such as HIE and HiTrans to develop commercial air services from Skye, and therefore there is a need to maintain the airfield at Ashaig in such a state as to enable this development.

4.4 Dornoch

The airfield was operated for a period by the military, and originally covered a much larger area than the current single runway.

The grass runway is situated on common good land with dimensions of 775m long x 23m wide. There are runway approach numbers and edge markers formed in concrete. A single windsock is located on the south side of the runway. An access track to the nearby sewerage works crosses the runway. Dornoch airfield signs are in place, as well as timber boundary posts around the airfield confirming the status of the airfield and to prohibit access to vehicles. The airfield is within EG D703 controlled air space (RAF Tain) and all pilots are required to contact Tain Range when the Danger Area is active.

There is an historic arrangement with Royal Dornoch Golf Club to ensure the grass is maintained to allow aircraft landings. Discussion with local users of the site has identified an appetite to voluntarily undertake some additional maintenance work, should the Council give permission for this.

A Local Working Group was convened at Dornoch in 2021 to explore the opportunities for alternative management structures for the airfield. No such structure was proposed at this time, however from subsequent discussions with airfield users it is understood that there is interest from at least two parties, one community-based and one commercial operator, in taking on a lease at Dornoch airfield.

Agreeing a lease with one of the interested parties would allow for the continued operation of the site as a community asset while removing liability from the Highland Council. Should no such agreement be reached within the 2023/24 financial year, the Council should cease active operations at Dornoch airfield and seek alternative uses for the site.

4.5 Plockton

Plockton Airfield is currently leased to PDG Helicopters on rolling terms. The rent was reviewed in 2019 in line with the Retail Price Index.

The asphalt runway has dimensions of 595m long x 23m wide. The airfield is currently divided into three parts:-

- 1) the airfield / runway;
- 2) the area let to PDG; and
- 3) an area currently leased to a private individual

Plockton airfield was sold by the National Trust for Scotland (NTS) to the Highland Council in 1980 and that sale was subject to a restriction to the effect that lands could only be used as an airfield and for no other purpose whatsoever. The NTS has a pre-emption right to buy back the airfield if the Council wishes to dispose of the asset. Opportunities have been identified for either the sale or long-term lease of Plockton airfield. The airfield is currently operated by PDG Helicopters under a lease agreement with the Council

4.6 Usage of Airfields

The airfields are predominantly used by a low number of small, fixed-wing aircraft, mainly operated by private pilots. They are also regularly used by emergency services (e.g., air ambulance) and are on occasion utilised by the Ministry of Defence for military exercises. A short list of regular users is as follows:-

All Airfields

- private pilots;
- emergency services; and
- Ministry of Defence

Individual Airfields

- Dornoch Model Flying Club (Dornoch);
- Aerobility (Ashaig);
- Skye Flying Club (Ashaig);and
- onshore wind developers (Ashaig)

No commercial / scheduled aviation services are currently in operation from any of the airfields. With recent and upcoming developments in Advanced Air Mobility (AAM), such as Unmanned Aerial Vehicles (UAVs or, commonly, “drones”), Electrified Vertical take-off and Landing (eVTOL) and Electrified Ultra-Short take-off and Landing (eSTOL) technologies, it is anticipated that small airfields such as those owned by Highland Council could see some level of increased use over the coming decade, although the volume of this is currently purely speculative.

4.7 Financial position of airfields

The financial position for the Council's airfields can be summarised as follows:-

Financial Year	19/20	20/21	21/22	22/23
	£	£	£	£
Skye - Expenditure	-£6,823.00	-£6,078.00	-£10,021.00	-£6,020.00
Skye - Fees	£6,065.00	£1,076.00	£12,271.00	£1,857.00
Total Skye	-£ 758.00	-£5,002.00	£ 2,250.00	-£4,163.00
Dornoch – Expenditure			-£ 2,448.00	
Dornoch – Fees	£1,494.00	£ 841.00	£ 2,418.00	£ 630.00
Total Sutherland	£1,494.00	£ 841.00	-£ 30.00	£ 630.00
Grand Total	£ 736.00	-£4,161.00	£ 2,220.00	-£3,533.00

There is little consistency in the financial position of the airfields in any given year, and over the past four years the airfields are running at a combined deficit of £4,738.00.

As identified under section 4.8 below, due to some inefficiencies in the Prior Permission Required (PPR) system and the methods of fees collection, it is likely that a small portion of the full income potential of the airfields is not being realised at this time.

Plockton airfield is operated by PDG Helicopters under an annual lease from Highland Council. This lease accounts for the majority of the Council's income from the site, with PDG further providing 15% of landing fees generated. For the period 2019-2024, the lease agreed with PDG provides rental income of £1,694.00 per annum, with PDG paying a further £6,125.00 in Non-Domestic Rates. In 2021 the airfield generated £174.51 for the Council with regards to landing fees - for the period 2015-2021 the historic average landing fee income is £97.67 per annum.

An opportunity has been identified at Plockton for the sale or long-term lease of the site, which would generate income for the Council and reduce its liabilities.

Note that for the Sutherland airfields, no maintenance work was carried out in three of the four years, and as such a maintenance deficit is likely to have built up.

Officers have held discussions with a colleague currently undertaking routine maintenance duties at Ashaig Airfield, and these have identified significant maintenance issues with regards to the runway, with weed growth through the centre line resulting in bulging and cracking of the asphalt.

Previously, Ashaig Airfield has generated income through lease to renewable energy companies for turbine storage, and there are ongoing discussions with the Met Office regarding potential for siting a weather station at the airfield, but this has yet to be fully established. These income streams could be used to support future maintenance costs at this site.

Likewise, recent reports from users of the grass airstrip at Dornoch note that “the field was in fair condition but is developing many lumps and low spots” and “runway could do with a tidy up and all markings painted”. While Royal Dornoch Golf Club do carry out mowing activities free of charge, some additional maintenance such as rolling is likely to be required here to keep the airfield in usable condition.

It should also be noted that there are certain maintenance liabilities (grass cutting at Dornoch) which are currently being addressed by third parties on a voluntary basis, and that full accounting of these may further change the financial position.

The fee structure for the airfields is being increased by 10% for the coming financial year, and it is anticipated that a similar rise in incomes will therefore occur.

4.8 Common issues across airfields

Several common issues were identified across all three airfields, namely:-

- inefficiencies in Prior Permission Required (PPR) system – private flights may take place outside of regular office hours, yet the Council is only available to process PPR during these times;
- inconsiderate pedestrian access – the airfields and runways are commonly accessed and used for leisure purposes by those in the surrounding communities. There have been incidents noted of inappropriate or unsafe usage e.g., failing to vacate the runway to allow pilots to land; and
- inconsistent signage and rules for airfield users – the language used on the signage across the airfields was inconsistent and in need of revision. In addition, there was a lack of consistency in published rules for airfield users.

With regards to PPR, officers have investigated potential solutions to this issue (see **Appendix 2**) and presented a recommendation to Members that a web based PPR system be implemented. This would entail a one-off cost of £49 per airfield, plus an annual cost of £228 per airfield.

5 Aviation Law and THC Liability

- 5.1 Aviation is heavily regulated by primary and secondary legislation as well as common law. An overview of this has been presented at **Appendix 3**, along with a review of where the Council currently stands with regard to good practice guidance presented in *CAP 793*.

Some wider issues to consider have been highlighted here for the information of Members:-

- Aerodromes carry inherent risks to users, the local public and the environment.
- THC as Aerodrome Operator should where possible minimise such risks by adherence to law and guidance.
- THC does not follow much of the CAA guidance noted in **Appendix 3**. This lack of good practice (e.g., no hazard marking) increases the likelihood of incidents and fails to mitigate others (e.g., inadequate emergency equipment). Current practice is unnecessarily increasing THC exposure to liability.

- Estimated cost per annum to undertake all of the necessary daily checks at both Dornoch and Ashaig has previously been estimated to be in the range of £50,000. This does not include costs for bringing each site up to an acceptable CAA Safe Operating standard (e.g., fencing, maintenance, signage, windsock, emergency equipment) which would run to significant amounts.
- Income generated by the airfields is low (basic running costs not covered) and potential liability at these unmanned and unlicensed airfields is significant.
- THC has no duty to operate or facilitate the operation of airfields.

In 2015 a proposal was tabled to Members recommending the closure of all 3 airfields to make a saving of what was then £28,000 of annual maintenance costs. The proposal was however rejected.

6 Next Steps

6.1 In light of the current issues and liabilities the following next steps are recommended:-

- opportunities for either the sale or the long-term lease of the Plockton airfield should be explored, as both represent potential income-generation options for the Council;
- the Council should continue to operate Ashaig airfield in a manner which meets all necessary legal obligations, until such time as further developments with regards to scheduled air services are made;
- the Council should seek to offer a lease on Dornoch airfield to one of the interested parties in the local community, allowing its continued operation as an asset for the community while removing risk and liability from the Council. Should no such agreement be reached within the 2023/24 financial year, the Council should consider ceasing active operations at Dornoch airfield and seek alternative uses for the site;
- the Project Officer has prepared a risk register covering all three airfields (**Appendix 1**). This should continue to be monitored and proactive action taken to address and prevent risks from arising; and
- an online PPR system should be implemented at Ashaig and Dornoch, based on the information presented in **Appendix 2**.

Designation: Executive Chief Officer Infrastructure & Environment

Date: 3 April 2023

Authors: David Swanson, Project Officer (Wick Public Service Obligation)




Background Papers: Appendix 1 – Risk Registers
 Appendix 2 – PPR / ANPR Solutions
 Appendix 3 – Aviation Law and Good Practice

Appendix 1 – Risk Registers

Ashaig

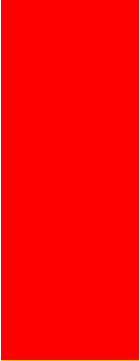
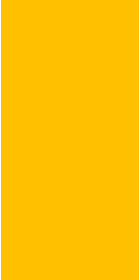
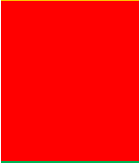
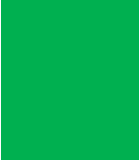
1	Lighting	No lighting on apron	Low	Risk of trips/falls or collisions on apron during night/winter; very limited foot traffic	Explore potential lighting options and cost these out	Low	DS	
2	Lighting	Shrubbery overgrowing airfield lighting	Med	Visibility issues for aircraft, potential for runway excursion	Ensure shrubbery cut back by specialist	High	DS	Urgent action req'd
3	Lighting	Lighting of aircraft working area	Low	Aircraft working area lit	Monitor lighting and ensure working	Med	DS	Ongoing review
4	Incursions	Incursion into emergency services areas	Low	Dedicated emergency services area set aside and yellow-lined	Monitor yellow-lining and maintain as needed	Med	DS	Ongoing review
5	Incursions	Vehicular incursion to airfield	Low	Lockable gate on road access	Monitor gates and maintain as needed	Low	DS	Ongoing review
6	Incursions	Pedestrian incursion to airfield	High	Unauthorised access ongoing problem - signage ignored and informal style set up to enable	Multiple possibilities - to be explored in greater detail dependent upon resources	High	DS	Urgent action req'd
7	Flight ops	25 end of runway overgrown	Med	Potential runway visibility issues for approaching aircraft; risk of landing issues	Ensure shrubbery cut back regularly	High	DS	Urgent action req'd

8	Flight ops	Lack of METAR	High	Inability to offer pilots up-to-date information on meteorological conditions, potential risks to landing. Pilots able to do low-level flyby to assess visually	Opportunity to reconnect phone/internet & support Skye Flying Club to install webcam	Med	DS	Review potential action
9	Flight ops	Taxiway maintenance	Low	Taxiway appears well-maintained and surrounding greenery cut well back etc.	Monitor as needed and ensure ongoing compliance	Low	DS	Ongoing review
10	Flight ops	Runway maintenance	Med	Understand from local source that starting to see runway damage due to weeds	DS to investigate more fully and understand mitigation / repair cost	Med	DS	Ongoing review
11	Flight ops	General landscaping/maintenance	Med	Shrubbery/undergrowth beginning to obscure key elements; requires specialist/careful cutting back	Engage HC maintenance or contractor to cut back	Med	DS	Action req'd
12	Financial	Skye Flying Club	Med	Dwindling interest in club, lack of formal status - risk of abeyance and failure to provide regular income to HC No income generated from operation of commercial services - HC continue to bear costs of operation/maintenance	Explore opportunities to support & promote club, help to formalise legal status if req'd (Business Gateway?)	Low	DS	Ongoing review
13	Financial	Lack of scheduled services	High		Explore opportunities with partners to reintroduce scheduled services	Med	DS	Ongoing review
14	Financial	Reintroduction of scheduled services	Low	If scheduled services reintroduced, potential significant investment req'd - fire service etc.	Work ahead of time with partners (HIE, HIAL, HITRANS) to identify and adopt solutions	Low	DS	N/A

15	Financial	Invoicing of all landings		Low	Note raised that HC may not be invoicing all landings - loss of income	DS to audit, establish number of landings against invoices raised	Med	DS	Ongoing review
16	Reputational	Negative local press/commentary	TBC	TBC	Appears to be active opposition to reintroduction of scheduled services; unclear if this extends to GA traffic at this time. Potential for HC involvement in negative press/community commentary	DS to establish level and nature of opposition, if needed meet with key groups to hear concerns	TBC	DS	TBC
17	Procedures	Phone in Alness not always answered	TBC	TBC	Need to better understand procedure here	TBC	TBC	DS	TBC
18	Procedures	PPL enquiries coming via Flying Club		Low	Currently being dealt with and HC copied in but outwith formal procedure	DS to work with Skye Flying Club to establish proper procedure if req'd	Low	DS	Action req'd
19	Procedures	Poor wording in current rules for pilots		Low	Some improvements needed to make pilot liability clearer	DS to revise and publish	Low	DS	Action req'd

Dornoch

ID	Category	Description	Category	Likelihood	Analysis	Mitigation	Priority	Ownership	Status
1	Procedural	Grass cutting undertaken by Royal Dornoch with no payment		Low	Potential risk if they decide to stop cutting grass	DS to ascertain if any formal agreement in place; produce costed contingency for landscaping if req'd	Low	DS	Ongoing review
2	Maintenance	Concrete markers on either side of runway require repainting		Low	Potential visibility issue	Ensure ongoing maintenance carried out as req'd	Low	DS	Ongoing review
3	Maintenance	Fire engine shed in poor condition		Low	Potential for further degradation	Ensure monitored and preventive maintenance carried out if needed	Low	DS	Ongoing review
4	Maintenance	Windsock slightly weather worn		Low	Visibility issues if further degradation takes place	Ensure monitored and preventive maintenance/replacement carried out if needed	Low	DS	Ongoing review
5	Procedural	Signage provided by Dornoch Model Aircraft Club		Low	Currently reliant on external provider's goodwill to maintain signage	DS to establish relationship, ascertain any signage requirements and identify contingencies if club ceases to provide	Low	DS	Ongoing review
6	Incursions	Risk of vehicular incursion onto airfield		Low	Lack of fencing - timber boundary posts only. Potential for incursions, esp. by tourists looking for wild camping etc.?	DS to review and understand potential for incursion	Med	DS	Action req'd

7	Incursions	Risk of pedestrian incursion onto airfield		High	Explicitly mentioned by some pilots as an issue preventing landing from taking place - needs to be resolved as a safety concern	DS to review options to more strongly enforce / encourage sensible access DS to speak to HC ranger responsible for area - identify common points of access for signage	High	DS	Urgent action req'd
8	Flight ops	Flooding		High	Turning areas susceptible to flooding, viewed as high risk by one stakeholder but extent not fully established	DS to investigate, establish risk level and likelihood.	Med	DS	Action req'd
9	Staffing	Lack of local staff to pre-check runway condition etc.		High	Req'd by CAA – see Appendix 3	Investigate possible mitigations / use of existing staffing resource in region	Med	DS	Action req'd
10	Financial	Inefficiency of fee-collecting system		Low	Small potential for missed income	See Appendix 2	Med	DS	Action req'd

Appendix 2 – PPR / ANPR solutions

Prior Permission Required (PPR)

The initial reports produced by Northpoint Aviation identified two potential solutions to assist with better management of PPR and collection of fees. These were the use of a more modern PPR system allowing pilots to make, pay for and have PPR requests approved online; and the use of Automatic Number Plate Recognition (ANPR) technology to identify landing aircraft.

The use of ANPR technology has been investigated and dismissed as a feasible option due to a number of factors including:

- Cost – initial estimates suggest that this could be up to £10,000 per airfield for use of the technology, before any costs relating to installation, maintenance etc.
- Lack of market testing – while ANPR is widely established as a technology for tracking of motor vehicles, little evidence could be found for its use. One manufacturer claims to be able to apply AI-assisted Optical Character Recognition technology to the task of scanning and tagging aircraft tail identifiers, but there is little practical evidence of this being used
- Infrastructural issues – installation and use of ANPR technology would require on-site power and a suitable internet connection. With regards to Dornoch in particular, which currently does not have power on site, this implies a significant additional financial outlay in order to install ANPR equipment

Officers were successful in identifying a technological solution to assist with the management of PPR at Ashaig and Dornoch. Smart PPR (<https://smartppr.co.uk>) is a web-based system which can be rolled out with little or no technical demands on the Council's side, and which would allow for a much more modern and simplified management of PPR requests. Key features include:

- Customisable PPR Request Form and fee structure
- Automated approval of PPR requests
- Admin dashboard for management of PPR requests
- Ability to search for, filter and view past PPR requests
- Dynamic arrivals board
- Website widget (this would allow the request form to be embedded e.g. at https://www.highland.gov.uk/info/1526/public_and_community_transport/856/dornoch_airfield)

At present, the only functionality which would not be usable by The Highland Council is the ability to accept fee payments online, as the payment processor currently used is PayPal.

There is a one-time setup fee of £49 per airfield, and an ongoing monthly cost per airfield ranging from £9 for the Lite (up to 25 requests per month) tier up to £49 for the Growth (up to 250 requests per month). To allow for future growth and to ensure that limits are not exceeded during busy period e.g. of activity by local flying clubs, costs have been calculated on the basis of the Basic (up to 50 requests per month) tier at £19 per month per airfield.

Thus the cost implication of this solution for both Ashaig and Dornoch is an initial outlay of **£98**, followed by an annual commitment of **£456**.

Appendix 3

Aviation Law and Good Practice

Primary legislation (includes):

- Civil Aviation Act 1982 – confers enabling powers for the regulation of civil aviation
- Airports Act 1986 – regulation and use of airport facilities
- Transport Act 2000 Part 1 – air traffic services

Secondary legislation (includes):

- Air Navigation Order 2000 – registration, operation and crewing of aircraft, and air traffic service
- Air Navigation (General) Regulations 1993 – supplement/amplify the provisions of the Air Navigation Order 2000
- Rules of the Air Regulations 1996 – rules with which aircraft and aerodromes must comply
- Civil Aviation Authority Regulations 1991 – powers and duties of the Civil Aviation Authority
- Carriage by Air Acts Order 1967 – applies the Warsaw Convention and the Guadalajara Convention to various types of international and non-international carriage by air
- Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 1996 – investigation of air accidents and other incidents
- Aeroplane Noise Regulations 1999
- Air Navigation (Environmental Standards) Order 2002

The Civil Aviation Authority (CAA) is the authority responsible for the economic, technological and operational regulation of the civil air transport. It produces guidelines covering all aspects of aviation.

Of particular relevance to this report is *CAP 793: Safe Operating Practices at Unlicensed Aerodromes*. While the contents of this document are not mandatory, they are considered to represent sound practice as developed in consultation with the aviation industry and its representative bodies and presents a range of matters which THC as Aerodrome Operators should be attending to at Ashaig and Dornoch.

Summary and analysis of matters covered in CAP793

Runways

- The runway surface should be kept as smooth and well drained as possible.
NOT MET – cracking and raising of asphalt at Ashaig; noted lumps and dips at Dornoch, also prone to flooding
- Natural surfaces should be mown, rolled and kept debris free.
NOT MET – regular mowing at Dornoch but no regular rolling; no regular debris checking at either airfield
- Grass be kept to a maximum of 10 cm (4 in.) high.
MET – regular mowing at Dornoch; Ashaig is asphalt
- It is essential to mark any obstacles, potholes and bad ground
NOT MET – no hazard marking
- It must be remembered that the fact that an aerodrome is unlicensed does not preclude compliance with the Air Navigation Order or the Rules of the Air Regulations.
UNCLEAR – full audit with respect to relevant Order / Regulations required

Obstacles

- Anything that, because of its height or position, could be a hazard to an aircraft landing or taking off should be conspicuously marked if it cannot be practicably removed or minimised.
PARTIALLY MET – overgrowth of shrubbery at Ashaig; not aware of height obstacles at Dornoch
- The height of the highest obstacle within 4nm of the centre of the aerodrome, together with any potentially hazardous obstacles outside the aerodrome boundary, over which the aerodrome operator cannot exercise control, should be mentioned in any aeronautical information publications in which the aerodrome is included.
UNCLEAR – full audit with respect to published aerodrome information required
- Consideration should also be given to displaying this information on a chart or map on a notice board within the clubhouse, in the training or briefing room and on the aerodrome website to raise awareness of these obstacles.
NOT MET – no hazard information displayed at either Ashaig or Dornoch

Flying Operations

- A visual inspection of the airfield including checking the runway, and taxiways if available, should be conducted each day before the start of flying and again if there are reports of Foreign Object Debris (FOD) on the runway.

NOT MET – no capacity to carry out checks at either airfield

- Grass runways need regular maintenance: regular cutting and rolling together with the elimination of potholes and rabbit and other animal excavations.

NOT MET – Dornoch mowed but not rolled or filled to eliminate potholes etc.

- The surface of a grass runway can be considered smooth enough if a car can be driven over it at 30 mph without undue discomfort.

UNCLEAR – officers have not had opportunity to verify this, but on basis of above suspect probably not met

- A programme of planned maintenance should help to improve the quality and longevity of the runway.

NOT MET – maintenance carried out on reactive basis only

- The aerodrome operator should ensure that ruts, soft ground or other problems are marked, particularly if visiting pilots are allowed to use the aerodrome.

NOT MET – no hazard marking

- Requiring visiting pilots to obtain Prior Permission Required (PPR) will provide an opportunity to ensure they are made aware of such problems.

PARTIALLY MET – PPR is required, however given the current system this can potentially be on a post-hoc basis

- Aerodrome operators should consider the effect of runway surface state (e.g. wet or longer than usual grass) and/or contamination (e.g. recent rain, standing water or mud) on aeroplane take-off and landing performance.

NOT MET – aware of issues with rain at Dornoch in particular but no system in place to advise visiting pilots of potential issues

- If the aerodrome is accessible to the public or to livestock, aerodrome operators should always ensure that both are clear of the runway or operating surface before commencing operations.

NOT MET – both aerodromes open to public, strong concerns at both with public accessing unsafely and during flying operations, to the point of refusing to vacate the runway to allow visiting pilots to land

- Public footpaths should be clearly marked with warning signs advising of flying operations.

PARTIALLY MET – signage in place at both airfields but out of date and historically ignored by walkers

- Aerodrome operators should investigate and be aware of the effect of various wind directions on operations, considering wind shear, roll over from trees and buildings on the aerodrome.

PARTIALLY MET – windsock in place at both airfields but no mechanism to advise visiting pilots of hazardous wind conditions

- Birds are a hazard at all aerodromes but can be particularly so at small strips where roosting sites can be very close to the runway. Therefore, awareness of the hazard must be high, and procedures should be in place should some bird control activity be necessary. Reasonable attempts should be made to remove birds from the aerodrome. Guidance on techniques and systems to help reduce the risk of a bird strike can be found in CAP 772 Bird Strike Risk Management for Aerodromes

NOT MET – no bird strike management in place at either airfield

Wind Indication

- A wind sleeve or windsock, clearly visible from the air, and positioned to indicate a representative direction and strength, should be provided. The aerodrome owner should avoid locations close to trees or buildings or where terrain may cause an unrepresentative indication and ensure it will not interfere with aircraft taking off or landing.

MET – in place at both airfields

Emergency Services

Emergency procedures should be considered and include

- Assessment of the hazards and risks by competent person.

NOT MET – local station manager at Dornoch indicates could access site and has relevant equipment, but no formal risk assessment available for either site

- Arrangements for calling fire, police or ambulance.

NOT MET – no personnel on site during flying operations

- Liaison with local Emergency Services to visit the aerodrome so that they can brief their personnel on suitable routes for their vehicles and the nature of any hazards, such as fuel in aircraft tanks or in storage and types of aircraft likely to use the aerodrome.

NOT MET – not aware that any formal liaison with Emergency Services has been carried out

- Ensuring suitable first aid and fire-fighting equipment is available and can be transported to an accident or incident which occurs up to the aerodrome boundary.

NOT MET – no firefighting or first aid equipment on site at either airfield

- Providing written instructions on the action to be taken should an emergency occur.

NOT MET – no written instructions visible at either airfield

- Informing the local emergency services of any ballistic parachute devices fitted to any aircraft operating from the aerodrome.

NOT MET – no personnel on site to inform emergency services if being used

Air Traffic Service

The provision of an air traffic service will depend on several factors. Aerodrome Operators should consider the following:

- The anticipated number of aircraft that will use the airfield.
- The movement rate including circuit traffic.
- The type of aircraft that will use the airfield, fixed-wing, rotary-wing, microlights, vintage jets etc.
- The complexity of the operation – cross-runway usage etc.
- The proximity of other airfields and how that will affect the operation of the airfield.
- Local airspace and complexity.

NOT REQUIRED – neither airfield large or complex enough to necessitate either ATC or FISO service

Insurance

Aerodrome operators should obtain professional advice on the insurance that will be required to cover any liabilities to which their operation may expose them.

UNCLEAR – further consultation with insurance expert required to ensure that all liabilities fully covered for current operations