

CIVIL AVIATION PUBLICATION

AGA - 14

**PROCEDURES FOR NOTIFICATION ON
CHANGES TO PHYSICAL
CHARACTERISTICS AT
AERODROMES**

INDEX



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AGA 14

CHANGES TO PHYSICAL CHARACTERISTICS OF AEROCROME

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1.0 PURPOSE

The purpose of this Civil Aviation Publication is to provide guidance to aerodrome operators on the procedures for notifying the Authority on the development of aerodromes and other associated changes to the physical characteristics of the aerodrome with a view to ensure that the changes comply with certification criteria and safe management of the resulting changes.

2.0 REFERENCE

- 1) Civil Aviation (Aerodromes) Regulations, AGA 1 & 3
- 2) **ADR-APP-001** - Application to introduce a new system, facility, equipment, service, or the alteration of an existing one
- 3) ICAO Annex 14 – Volume 1

3.0 INTRODUCTION

Projects that involve changes to the aerodrome physical characteristics fall into 3 categories:

3.1 Development

Where new or upgraded infrastructure is to be provided: Examples include new additions or extensions to buildings, aerodrome infrastructure (such as taxiways and aprons), visual aids and navigation aids.

3.2 Changes

Where existing aerodrome infrastructure or physical characteristics are being changed: for example, reconfiguration of stands, changes to the runway or declared distances. Changes include projects that involve removing or amending existing aerodrome certificate/license variations.

3.3 Maintenance

Where existing infrastructure is being repaired, refurbished or replaced: i.e. to ensure continuance but without changing the characteristics of the piece of infrastructure.

4.0 AERODROME CERTIFICATION/LICENSING

4.0.1 Granting Certificate

The grant of an aerodrome certificate/license is governed by the Aerodrome regulations, which requires the Civil Aviation Authority Bahamas (CAA-B) to grant a certificate/license in respect of any aerodrome in The Bahamas if it is satisfied that the aerodrome is safe for use by aircraft, having regard in particular to the physical characteristics of the aerodrome and of its surroundings.

When an aerodrome receives its certificate/license, it is granted on the basis that it meets aerodrome certification/licensing criteria, unless variations to these criteria have been agreed by the CAA-B.

4.0.2 Aerodrome Certificate/License Condition

An aerodrome certificate/license condition requires that changes in the physical characteristics of the aerodrome, including the erection of new buildings and alterations to existing buildings or the visual aids, shall not be made without prior approval of the CAA-B.

The purpose of this is to ensure that the CAA-B is satisfied that changes in the physical characteristics meet licensing criteria and do not present a safety hazard.

Failure to notify the CAA-B of changes may leave the aerodrome vulnerable to costly remedial action or operational restrictions.

4.0.3 Project proposals

Project proposals should comply with the criteria contained in Aerodromes Regulations. Additionally, some proposals provide an opportunity to review existing variations to licensing criteria.

Where a variation cannot be removed, a supporting hazard analysis should be carried out, taking into account current and foreseeable operations, and the outcome of the analysis acted upon accordingly.

However, there may be circumstances where the proposal does not comply with licensing criteria but would enhance safety. In such cases, additional safety assurance will be required to assist the CAA-B in examining its feasibility.

4.1 Engagement with the Authority

Whenever possible, aerodrome certificate/license holders should inform the CAA-B of forthcoming projects and changes within 30 days prior to the process described in subsequent This CAP.

This will enable the CAA-B to identify the level of specialist resources required to meet their objectives, to plan and to manage the work involved, typically:

- 1) Developments involving navigation aids, instrument flight procedure changes, ATC facilities and aeronautical ground lighting might require a lead-time of 6 month
- 2) Projects that involve changes to the aerodrome's infrastructure will require prior approval and should be submitted to the CAAB Authority using the submission process in Section 7 of this Civil Aviation Publication.

- 3) ADR APP-01 Application to introduce a new system, facility, equipment, service, or the alteration of an existing one, must be completed
- 4) Projects that involve the construction of new facilities, extensions or enhancements are classed as development, and will also require prior approval from the CAA-B.
- 5) Submissions and other communications should be sent either electronically by email or hard copy to:

**The Director General
Bahamas Civil Aviation Department
J.L Centre, Blake Road
P. O. Box N-975
Nassau, Bahamas**

- 6) The CAA-B will assess the proposal, identify whether the project is minor or major, using the criteria shown in Section 5 and inform the aerodrome accordingly. When necessary, the CAA-B will seek the involvement of specialists from within or without.

5.0 Development Meetings

- 1) An Initial Development Meeting (IDM) may be required to brief the CAA-B on the project when the CAA-B deems it necessary. Where possible, all aspects of the development should be covered at the IDM and a presentation, given by the aerodrome certificate/license holder, often proves the most successful way to brief all participants.

Notes of the meeting should be produced by the aerodrome certificate/license holder and agreed upon by all parties.

- 2) Ideally, outline plans and drawings should be made available to the CAA-B before the IDM, in sufficient time to ensure that the IDM achieves the maximum benefit. Further development meetings can be expected both whilst preparing for and during the development.
- 3) The CAA-B will deal directly with the aerodrome certificate/license holder or his appointed representative who will be expected to attend each meeting, although consultants may also attend.

6.0 Aerodrome Development Project Charges

- 1) Aerodrome developments are classified as major or minor as described in this CAP. In accordance with the CAA-B Charging Scheme, when an application is made to obtain approval from the CAA-B of a major development project at an aerodrome, the aerodrome shall be charged.

The purpose of this is to enable the CAA-B to recover those costs for projects, which are deemed to be over and above those incurred during normal regulatory oversight.

- 2) A CAA-B assessment team will evaluate each development proposal in detail and classify it as major or minor depending on the level of regulatory oversight expected to see the project to a satisfactory conclusion.

The team will ensure all development proposals are evaluated consistently, will explain the reasons for the decision reached, and may also involve the aerodrome certificate/license holder in assisting with the evaluation process. The CAA-B will inform the aerodrome in writing of the outcome of the evaluation process and the rationale for the decision.

- 3) The criteria used to determine whether a development is deemed to be major, or minor may include the following, although this list is not exhaustive:
 - a) The complexity of the development;
 - b) The number of site visits required;
 - c) The impact on aerodrome operations (level of disruption to normal operations);
 - d) Changes required to aerodrome operations resulting from the new facility;
 - e) Changes required to the Aerodrome Manual;
 - f) Whether the development would create a new certificate/license variation that would require detailed evaluation;
 - g) The need for a CAA-B Flight Lighting Check (for AGL projects);
 - h) The level of internal CAA-B liaison required – Air Traffic Services, Flight Operations, Airspace/Instrument Flight Procedures
- 4) Typically, the projects listed in Table 1 below are those that may qualify as a major development.

Table 1: Developments that might be classified as “major”

This list is indicative only and projects may be excluded or included, depending upon the complexity of the proposal and regulatory oversight required

PROJECT	DESCRIPTION
New Runway	A development resulting in the construction of a new runway (e.g. new construction or the change of existing grass to a hard surface).
New Extension	A runway extension resulting in an amendment to declared distances or the provision of extra RESA.
Threshold Relocation (Instrument Status)	A development involving relocation of the instrument runway threshold, or relocation of a non-instrument runway threshold in preparation for instrument status.
AGL Installation, Instrument Status Runways	A new lighting installation or upgrade intended to facilitate additional operations (e.g., to accommodate low visibility operations and/or night operations).
New Building/Structures	A proposal involving a new terminal or terminal extension, hangars, or any other structure that may affect aircraft operations.
Installation of Aids to Navigation	An installation of ILS or MLS, glide path or associated equipment, radar, or other navigation equipment.
Taxiway Development	A new taxiway or significant change to the existing taxiway system.

Apron Development	A new apron or apron development resulting in a substantial increase in area.
Innovative Development	A proposal not covered by licensing criteria contained in AGA 3 Licensing of Aerodromes that requires the development of safety requirements by the CAA-B
New or Replacement Visual Control Tower (VCR)	Introduction of a new replacement VCR.
Any other development which materially affects the basis upon which the aerodrome license has been granted.	

7. Project Planning and Preparation

7.1 Projects That Require Extensive Planning

For projects that require extensive planning, the following areas will need to be considered. However, it is stressed that this list is neither mandatory nor exhaustive and it is recognized that these elements may not be available or fully developed at the planning stage:

- a) Aeronautical Ground Lighting;
- b) Aerodrome Manual changes;
- c) Air traffic procedures during and post-development;
- d) ATC line of sight requirements;
- e) Bird Hazard implications;
- f) Building Induced Turbulence;
- g) Changes to the existing aerodrome operating procedures;
- h) Changes to Magnetic Field Density as a result of development;
- i) Emergency Procedures;
- j) Environmental impact;
- k) Instrument Approach and Departure Procedures and Minima;
- l) Project Safety Management Procedures (outline);
- m) Proposed timescale;
- n) Revised Low Visibility Procedures
- o) Removal of certificate/license variations;

- p) Revised runway incursion prevention measures;
- q) Signage;
- r) Site access plan.

7.2 Project Proposals

Whenever a project is proposed, it is essential to establish whether it will result in a change to the established operating procedures at the aerodrome. It is therefore imperative that the management of any change is fully integrated into the aerodrome's safety management system and that the aerodrome operator's safety documentation covers this aspect.

7.3 Beginning Stages

When considering a project, it is important that, at an early stage, aerodrome certificate/license holders undertake a hazard appraisal and risk assessment to identify the potential hazards and associated risks surrounding any proposed changes. The ICAO Safety Management Manual (Doc 9859) provides guidance on hazard and risk assessment.

7.4 Details

The level of detail required should be commensurate to the size and complexity of the project and the aerodrome, as well as to the safety hazard and change presented.

8. Project Submission Process

8. Introduction

For development projects and changes, a 3-stage process will apply to assist aerodromes and ensure that aerodrome certificate/license holders meet their obligations under the licensing process. This Section details the information required for each of the 3 stages and the process to be followed.

This process must be used for development projects and changes but may also be used for significant maintenance projects should the aerodrome certificate/license holder or the CAA-B deem it necessary.

Additionally, the process and/or elements of it can be used whatever the project type or size, as determined within the aerodrome SMS. The documentation submitted may be proportionate to the size of the project. For smaller projects, it is acceptable to submit Parts 1 and 2 together.



8.1 The Three-Stage Process

The three-stage process consists of 3 separate parts as follows:

- a) Part 1: Compliance
- b) Part 2: Control
- c) Part 3: Completion

9.0 Compliance (Part 1)

9.1 Development Proposals

Each development proposal should be accompanied by documentation that provides clear evidence that the proposal conforms to certification/licensing requirements detailed in Aerodromes Regulations and other applicable CAA-B CAPs /orders. It will enable the CAA-B to assess the proposal as described in Chapter 3 Part 1 and should include:

- Project Overview.
- Notification Form.
- Compliance Matrix (to demonstrate that the project design meets licensing requirements).
- Scaled Drawings.

The Application ADR-APP-01 is attached at Appendix 2. Appendix 3 has the Supplemental Notice of Instruction for ADR-APP-01 and the Compliance Matrix is attached at Appendix 4.

9.2 Part 1 Completion

When Part 1 has been completed to the satisfaction of the CAA-B, confirmation that the project is compliant with certification/licensing requirements will be given. However, if any changes are proposed to the design or build, the modified information shall be notified to CAA-B.

10.0 Control (Part 2)

10.1 Demonstration

Following completion and acceptance of a development design, the aerodrome certificate/license holder must demonstrate to the CAA-B that the project will be managed safely.

Accordingly, the CAA-B will expect aerodrome certificate/license holders to develop safety assurance documentation that describes how the aerodrome will manage the construction works, and operating procedures, to ensure that aerodrome operations can continue safely during the project.

Aerodrome certificate/license holders should develop and implement a formal system for the strict control, safety management, safeguarding and safety coordination of all airside works. Safety Assurance Documentation can take many forms but should be proportionate to the size of the project.

The aerodrome certificate/license holder must ensure that systems for control and safe management extend to contractors working at the aerodrome.

10.2 Management Team

All members of the project management team should have clearly defined responsibilities and accountability in the project programme. During construction on an aerodrome, safety levels and standards of conduct must be maintained. These are essential to promoting safety, preventing accidents, and meeting the aerodrome certificate/license requirements.

10.4 Informing Stakeholders

It is important that accurate, up to date information is made available to all stakeholders involved in the project, including the CAA-B, both as part of the project planning and during the execution of the project itself. Therefore, the safety assurance and project management documentation may include any or all the following information:

- A clear statement of the supervision structure for the safety management and monitoring of works, including contact details of key duty personnel concerned, for both project and aerodrome management. This should include clear responsibilities, including the person with overall accountability for the development;
- Airfield Operating Procedures during the development, including contingencies such as low visibility procedures;
- Arrangements for liaison meetings/briefings between the aerodrome management and the contractors;
- Appropriate plans and diagrams relating to the contraction process;
- Control of contractors;
- Day and night start, control and completion of work procedures;

- Communications procedures between the aerodrome operating units (e.g. ATC, Airfield Operations) and construction teams;
- Emergency procedures;
- Method of working;
- Plans of site and diagrams of works;
- Points of contact - aerodrome management and contractor, including identification of manager with overall responsibility;
- Site access plan;
- Site safeguarding and marking;
- Weather minima that will affect the works;
- The general layout of the aerodrome including airside access points;
- The location and limits of works areas;
- The specific security access points to be used and the location and marking of the access routes to be used to reach airside sites;
- Methods of control and access for works sites within the Apron and Manoeuvring Area including arrangements for crossing taxiways and runways (if applicable);
- The methods and equipment to be used for protecting, marking and lighting the boundaries of works sites and for protecting normal aerodrome operations in the vicinity of the site. Also, the requirement to control site lighting to prevent distraction of aircraft crews, drivers and ATC;
- The strict timing for the setting up of work sites, the start of work, daily permitted working hours at the site and procedures to be followed for starting and stopping work;
- Aerodrome emergency procedures, including response times during periods of work in progress (WIP), should not be compromised. This extends to ensuring compensatory arrangements are in place to cover depletions of fire main or fire hydrants when the fire main has been deactivated due to work in progress;
- Vehicle and equipment requirements, operating rules, and the requirements for staff discipline;
- Calculating and communicating amended runway declared distances;
- Maintaining appropriate pavement friction characteristics;
- Information on special safety requirements for aircraft operations in the vicinity of works and the methods of control available on the Manoeuvring Area, including radio telecommunication procedures if appropriate;
- Arrangements for the special control of 'hot works';
- Requirements for the operation of cranes and other tall structures;
- Arrangements for the receipt and movement of heavy or bulky loads;
- Requirements for vehicle and area cleanliness, also the implications of Foreign Object Debris (FOD) and loose material hazards for aircraft operations;
- Arrangements for the disposal of waste;
- Information on the safety implications for the site and staff of special aircraft hazards including blast, vibration, fumes and noise;
- Information on the effects of strong winds at the aerodrome;
- Site safety, including personnel protection.

10.5 Safety Guidance

Guidance on Safety at Aerodromes during Construction Works is given in Civil Aviation Publication (“CAP”) AGA 12 Aerodrome Inspection Programme and Condition Reporting.

10.6 Notification to stakeholders

Aerodrome certificate/license holders should ensure that all stakeholders are notified of aerodrome projects. These notifications during the project, may include Safety Instructions, Aerodrome Information Circulars, NOTAMs, or other local procedures.

10.7 Prior to Project Commencement

Before contractors start work at any aerodrome/airside location, aerodrome certificate/license holders should provide a comprehensive safety briefing including the results of ongoing hazard analyses, to ensure all information needed to achieve the safe completion of any works or activity is clearly understood and agreed.

Additionally, aerodrome certificate/license holders should hold regular progress meetings to ensure project safety and operational objectives continue to be met. There should be close monitoring of the safety of aerodrome/airside operations while the project work is in progress and, when reaching decisions, project priorities should be subordinate to the maintenance of safety standards.

10.8 Approval

When the CAA-B has been assured that the aerodrome can continue to operate safely during the project, approval will be given to commence work.

11.0 Completion (Part 3)

11.1 Transitioning to Service

Transition into service is a critical phase of the project and can present complex challenges. Careful planning and robust procedures need to be established to ensure that the change is introduced safely and efficiently.

This may be demonstrated by undertaking a process of operational readiness, which may include simulations, testing, audits, or sample inspections, involving appropriate key stakeholders.

On completion of the development, but prior to operational use, the aerodrome certificate/license holder should confirm to the CAA-B that the project meets the agreed design criteria and is fit for purpose. The CAA-B will confirm that the new facility is accepted and may be brought into operation.

11.2 Safety Monitoring

Safety performance monitoring should be a key process of an aerodrome’s SMS, to ensure that the introduction of the new facility continues to maintain safety standards at the aerodrome.



12.0 Maintenance Projects

Maintenance projects can vary enormously in size. Much maintenance work involves short-term minor works, such as painting, planned periodic replacements (e.g., light cleaning in accordance with a preventative maintenance schedule), refinements to systems/infrastructure and small repairs to aerodrome infrastructure, which can be completed in short timescales and with limited disruption. Smaller planned or routine maintenance works need not be notified to the CAA-B, although the Aerodrome Inspector would expect to be kept informed of some of these activities.

12.1 Large or Long time Projects

However, maintenance may also involve large, longer-term projects (weeks/months), which may involve many key stakeholders, and which may have significant impacts on operations and so test the aerodrome's safety management system. Examples of major maintenance would include runway rehabilitation and replacement of aerodrome ground lighting systems.

Major maintenance projects such as these should be notified directly to the Aerodrome Inspector, who will advise on the approval required and maintain regulatory oversight of the project.

In certain circumstances, however, the Inspector might conclude that the project qualifies for the submission process described in this document. In such cases, the guidance in the preceding chapters should be followed.

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APPENDIXES

APPENDIX 1:

NOTIFICATION OF CHANGES TO THE PHYSICAL CHARACTERISTICS

This form shall be signed and submitted as instructed.

IMPORTANT – PLEASE READ THE FOLLOWING CAREFULLY BEFORE COMPLETING THE FORM



Dear Applicant,

An Aerodrome Certificate / License condition states that any change to the physical characteristics of an aerodrome, including the erection of new buildings and alterations to an existing building or visual aids, shall not be made without prior approval by the CAA-B

In order to consider your proposal, please complete **ADR APP-01 Application to introduce a new system, facility, equipment, service, or the alteration of an existing one.**

If there is difficulty completing the application, please do not hesitate us


Yours Sincerely

directorgeneral@caabahamas.com



APPENDIX 2

ADR APP-01 Application to introduce a new system, facility, equipment, service, or the alteration of an existing one.

Reference - ADR-APP-001 - Application to introduce a new system, facility, equipment, service, or the alteration of an existing one			
		APPLICATION TO INTRODUCE A NEW SYSTEM, FACILITY, EQUIPMENT, SERVICE OR THE ALTERATION OF AN EXISTING ONE	
1. PARTICULARS OF THE APPLICANT			
Full name			
Position			
Address			
Phone	Cell phone		Email
	Office		
2. PARTICULARS OF THE AERODROME SITE			
Aerodrome Name			
Aerodrome Certificate or Aerodrome License reference number			
Geographical coordinates			
Bearing and distance from nearest town			
3. OPERATIONAL MANAGEMENT OF THE AERODROME			
<input checked="" type="checkbox"/> State Operated	<input type="checkbox"/> Concession	<input type="checkbox"/> Management	<input type="checkbox"/> Private
4. DESCRIBE THE ALTERATION/AMENDMENT YOU WOULD LIKE TO MAKE TO THE CONDITIONS OF THE AERODROME CERTIFICATE OR AERODROME LICENSE			
_____ _____ _____			
5. DOES THE ALTERATION/AMENDMENT CHANGE THE OPERATION OF THE AERODROME? IF YES, PLEASE PROVIDE DETAILS			
_____ _____ _____			



6. HAVE ALL RELEVANT STAKEHOLDERS IMPACTED BY THE PROPOSED ALTERATION/AMENDMENT, AND WHERE APPLICABLE, BEEN CONSULTED WITH?	
7. HAS AN IMPACT ASSESSMENT BEEN CARRIED OUT REGARDING THE PROPOSED AMENDMENT? IF YES, PLEASE PROVIDE DETAILS AND ATTACH THEM TO THIS APPLICATION. YES <input type="checkbox"/> NO <input type="checkbox"/>	
Application Date	Signature of Accountable Manager

NOTE: Please attach an Aeronautical Study/Safety Assessment with your application

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APPENDIX 3 Supplemental Instruction

INSTRUCTIONS Supplemental Notice Instructions FOR ADR APP-001

1) Section 1 Particulars of the Applicant

- a. Enter Full name: name of the aerodrome proposed operator applying
- b. Enter the Position: occupation/position of the proposed applicant
- c. Enter Address: street address of proposed aerodrome location
- d. Enter the phone number proposed aerodrome duty cell phone
- e. Enter Office: official number that can be readily available
- f. Enter the Email: company registered email

2) Section 2 Particulars of the Aerodrome Site

- a. Enter the Aerodrome name: proposed business name registered with business license office.
- b. Enter the Aerodrome certificate/license reference number: if already given the certificate/license issued by CAAB to the aerodrome operator
- c. Enter the Geographical coordinates: the surveyed coordinates WGS84 given by Jeppesen, or other certified airport data surveying company hired by the operator.
- d. Enter Bearing and distance from the nearest town: the calculate WGS-84 Distance in feet or miles to the near town or city

3) Section 3 Operational Management of the Aerodrome

- i. Enter if it is State-operated: i.e., if it is government-owned
- ii. Enter if it is a Concession: i.e., if there is a government or private grant given for the operation
- iii. Enter the management: the administration team members in charge of the operation.
- iv. Enter if it is Private: a private citizen/company who owns or manages the aerodrome.

4) Section 4 Description

Describe the alteration/amendment you would like to make to the aerodrome certificate or aerodrome license: any changes the aerodrome owner or management wishes to make such as a change to the physical characteristics, change of management, ATC, or navigation Aids.

5) Section 5 Alteration / Amendment



Enter if the alteration/amendment changes the operation of the aerodrome. If yes, please provide details: the information on what the procedure/process of the proposed changes to certificate/license amendment will mean to the operation of the aerodrome.

6) Section 6 Stake Holders

Enter if all relevant stakeholders impacted have been consulted: the aerodrome operator consultation and fact-finding survey of analysis gathered from the current airport service companies or stakeholders.

7) Impact Assessment

Enter if the impact assessment is being carried out regarding the proposed amendment. Provide a survey from the relevant local government offices namely an environmental impact assessment based on the proposed changes.

