AERODROME SAFETY PUBLICATION

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Note – Aerodrome Safety Publications are published by the SCAA to supplement the to the provisions of the Seychelles Technical Standards – Aerodromes. The publications are intended to provide recommendations and guidance to illustrate a means, but not necessarily the only means, of complying with SARPs. Aerodrome Safety Publications may explain certain regulatory requirements by providing interpretive and explanatory materials.

1. Purpose

1.1 The purpose of this Aerodrome Safety Publications is to provide supplementary guidance material to guide aerodrome operators in complying with Chapter 5, Subpart A - Aerodrome Work Safety of the Seychelles Technical Standards – Aerodrome (STS-ADR).

2. Applicability

2.1. This ASP applies to all aerodrome operators subjected to Regulation 61 of the Civil Aviation (Safety) Regulations, 2017 and the Seychelles Technical Standards - Aerodromes.

2.2. Operators of aerodromes that are outside the scope of Regulation 61 of the Civil Aviation (Safety) Regulations, 2017 are highly encouraged to implement the provisions of this ASP.

3. Cancellation

3.1. Nil

4. Introduction

4.1 From time to time, the aerodrome operator may intend to carry out works that affect the physical characteristics of the aerodrome and/or affect aerodrome operations. These works include the development of new infrastructure, modifications, or maintenance of existing infrastructure, on the airside. The aerodrome operator shall ensure that such developments and changes to the airside infrastructure comply with the STS-ADR requirements. As hazards to aerodrome operations may be introduced in the process of these works, it is essential that the work process is well controlled.

5. Definitions and Abbreviations

5.1 Abbreviations

AIP	Aeronautical Information Publication
AES	Airport Emergency Services
AGL	Airfield Ground Lightings
ASP	Aerodrome Safety Publications
NOTAM	Notice to Airmen
SARPs	Standards and Recommended Practices
STS-ADR	Seychelles Technical Standards – Aerodrome
SCAA	Seychelles Civil Aviation Authority

5.2 Definitions

Aeronautical study
A study of an aeronautical problem to identify possible solutions and select a

solution. That is acceptable without degrading safety.

Authority
The Authority refers to the Seychelles Civil Aviation Authority (SCAA) that conducts safety oversight activities within the Republic of Seychelles.

Hazard
A condition or object with the potential of causing injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function**.**

Compliance matrix
A tool designed to ensure adherence to STS-ADR requirements.

Infrastructure
Physical components of an airport, including runways, terminals, and control towers.

Risk
The potential for a hazard to cause harm, measured by the likelihood of occurrence and the severity of its consequences.

Risk Assessment
A systematic process to identify hazards, assess the likelihood and severity of their impact, and implement measures to mitigate risks, ensuring aviation safety in compliance with ICAO's Safety Management Systems (SMS) framework.

Safety case
A document that provides evidence that a system meets its safety objectives. It's a key document that demonstrates a system's safety.

Scaled drawings
A scale drawing is a two-dimensional representation of an object that is either enlarged or reduced in size, but still proportional to the original object.

6. Notification and Submission of documents

6.1 The aerodrome operator shall, before carrying out any works that affect the physical characteristics of a runway, taxiway or aircraft parking stand, notify and submit the following required documents to the SCAA at least **3** months before the commencement of works:

a) a completed form that includes a brief description, and the scope of the proposed new development/modification work, reason for the works, name and designation of the project manager and the expected start and end date. Notification Form *ASSI/FORM/08 - Notification of New and/or Proposed Changes to Aerodrome Infrastructure (See sample in* ***Appendix B****);*

b) work schedule;

c) a compliance matrix demonstrating compliance of the design of the proposed infrastructure with relevant STS requirements; and

d) Scaled drawings of the proposed new development or modification.

6.2 The aerodrome operator must submit all required documents outlined in section 6.1 at the time of initial submission and provide continuous updates as they become available to maintain compliance with the STS-ADR. Additionally, associated risk assessments must be submitted to SCAA as early as possible, but no later than 14 working days before the start of each major phase of the project.

6.3 Should the aerodrome operator wish to make any changes to the initial submission as per section 6.1, the aerodrome operator shall inform SCAA using form *ASSI/FORM/09 – Notification of variations to proposed changes to aerodrome infrastructure (see sample in **Appendix C**).* As a result of such changes or any changes to the STS-ADR, SCAA may require the aerodrome operator to re-submit design compliance documents as necessary. In accordance with STS-ADR, the aerodrome operator shall not commence any works in the affected areas where any non-compliance is not resolved.

6.4 In cases where the development or modification works as described in 6.1 could result in any non-compliance with the STS requirements, the aerodrome operator shall submit the required documents as described in 6.1 not later than **6** months before the commencement of works. The aerodrome operator shall not commence works in the affected areas where any non-compliance is not resolved.

6.5 Notification and submission of required documents specified in 6.1 is not required for the aerodrome works that do not affect the physical characteristics of a runway, taxiway or aircraft parking stand. Some examples are as follows but is not limited to:

a) Routine maintenance works on runway, taxiway/taxilane or aircraft parking stand such as repainting of markings, replacement of lights, grass cutting, sweeping and removal of rubber deposits on pavements;

b) Installation of new AGL and other visual aids;

6.6 Submission of required documents specified in 6.1 is required for aerodrome works that affect the physical characteristics of a runway, taxiway or aircraft parking stand. Examples of such activities are but is not limited to:

a) Introduction of new runway, taxiway/taxilane or RESA;

b) Extension of runway, taxiway/taxilane or RESA;

c) Reconfiguration of aircraft parking stands for instance, single aircraft bay to Multiple Aircraft Receiving Stands (MARS)

d) Construction of new aircraft parking stands; and

e) Pavement overlay

6.7 Notwithstanding section 6.5 and 6.6, the aerodrome operator shall notify SCAA and submit associated risk assessment for aerodrome activities that are classified as major or significant as early as practicable at least 14 working days prior to the commencement of the works.

Note: classification of aerodrome activties are based on potential hazards to aerodrome operations, the operator is recommend seeking guidance from the authority.

7. Management And Control of Aerodrome Works

7.1 An aerodrome operator should develop a work plan *(See **Appendix A** for guidance on the development of aerodrome work plan)* to demonstrate that it takes all reasonable measures to ensure that aerodrome works are well-organized and that all work personnel carry out aerodrome works in a manner that will ensure the safety of aircraft operations. The work plan should be submitted to SCAA 14 working days prior to the start of the aerodrome works.

7.2 Persons, vehicles, plant and equipment required for carrying out aerodrome works should not be permitted to enter the movement area or remain on it except for the purpose of carrying out those works.

7.3 The operator shall appoint a person responsible for the safe and proper execution of each item of aerodrome works. The person should be satisfied that the work plan is adequately prepared and that sufficient safety measures are put in place on the work site at all times during the execution of the aerodrome works when the aerodrome is open to aircraft operations. This person should be required to:

a. ensure the safety of aircraft operations is not affected by the aerodrome work plan;

b. ensure that, where applicable, the aerodrome works are notified by the issue of an AIP Supplement or a NOTAM and that the text of each AIP Supplement or NOTAM pertaining to such notification conveys the information on operational restrictions accurately and clearly to aerodrome users and service providers;

c. supply the aerodrome control tower services with whatever information

necessary to ensure the safety of aircraft operations;

d. discuss with the work organisations involved, on a regular basis, any matters necessary to ensure the safety of aircraft operations;

e. ensure that unserviceable portions of the movement area, temporary obstructions and limits of the work areas are correctly marked and lit in accordance with the relevant requirements in the STS ADR and the work plan;

f. ensure that vehicles, plant and equipment carrying out aerodrome works are properly marked and lit in accordance with the relevant requirements in the STS ADR or are properly supervised;

g. ensure that all requirements under the work plan pertaining to vehicles, plant and equipment and materials are complied with;

h. ensure that access routes to work areas are in accordance with that designated in the work plan and are clearly identified and that access is restricted to these routes;

i. ensure that excavation is carried out in accordance with the work plan and relevant requirements, and in particular, that sufficient precautions are taken so as to avoid damage or loss of calibration to any underground power or control cable, utilities or other services associated with a precision approach and landing system, any navigational aid or facility or equipment essential for the safety of aerodrome operations;

j. report immediately to the aerodrome control tower services provider and the aerodrome operator any incident, or damage to facilities, likely to affect air traffic control services or the safety of aircraft;

k. provide adequate supervisors duty at the work areas while major works are in progress and the aerodrome is open to aircraft operations;

l. ensure that the aerodrome control tower services is kept informed of the radio call signs of vehicles used by the work organisations that are operating in the aircraft movement areas;

m. remove vehicles, plant and personnel from the movement area immediately, where necessary, to ensure the safety of aircraft operations;

n. ensure that the movement area is safe for normal aircraft operations following the removal of vehicles, plant and equipment and personnel from the work areas;

o. in the case of time-limited works, ensure that the work areas are restored to normal safety standards not less than 5 minutes before the time scheduled

for opening the work areas to aircraft operations; and

p. ensure that floodlighting or any other lighting required for carrying out aerodrome works is shielded so as not to present a hazard to aircraft operations.

7.4 The aerodrome operator should not close the aerodrome to aircraft operations due to aerodrome works unless an AIP Supplement or a NOTAM giving notice of the closure has been issued not less than 14 days before the closure takes place.

8. Markers, Markings and Lights

8.1 Aerodrome markers, markings, signs and lights required for, or affected by, aerodrome works shall be adjusted or installed in accordance with the appropriate aerodrome standards.

8.2 Parts of the movement area that are unserviceable as a result of the aerodrome works being carried out shall be marked and lit in accordance with the appropriate aerodrome standards.

8.3 All obstacles created as a result of aerodrome works being carried out shall be marked and lit in accordance with the appropriate aerodrome standards.

8.4 Vehicles and plant used in carrying out aerodrome works shall be marked and lit, where necessary, in accordance with the appropriate aerodrome standards.

9. Communications equipment of Vehicles Used

9.1 At a controlled aerodrome, vehicles used by work parties carrying out aerodrome works on the movement area should, as far as practicable, be equipped with a radio for two-way communications with the aerodrome air traffic control unit and/or apron management unit.

9.2 For the purpose of communication with the air traffic control unit, each vehicle used for carrying out aerodrome works on the movement area should be given a call sign.

9.3 Any vehicle or plant that is not:

i. marked or lit in accordance with section 6.3 above; or

ii. if applicable, equipped with a two-way radio;

shall only be used in carrying out aerodrome works if it is:

1. used under the direct supervision of another vehicle that is equipped with a two-way radio set and which is responsible for escorting the vehicle or

plant without radio when carrying out aerodrome works; or

2. used only within the limits of appropriately marked and lit work areas.

9.4 The drivers of vehicles equipped with a radio for two-way communications with the aerodrome control tower services shall be properly trained and be responsible for checking that their radio sets are switched on and serviceable at all times when working on the movement area.

10. Works near aircraft movement areas

10.1 The aerodrome operator shall refer to STS ADR Chapter 8 and ASP 08 Control of Obstacles to determine the extent of work allowed near aircraft movement areas.

10.2 Works on or near aircraft movement areas or runway strips should be carried out as quickly as practicable to minimize any potential risks arising out of changes associated with the works in progress.

10.3 Where works are to be undertaken in the vicinity of navigational or landing aids located within the runway strips, considerations shall be taken to ensure that neither the works nor vehicles or plant associated with the works may affect the performance of the aids.

11. Approval of completion

11.1 The aerodrome operator shall not commence operations of any new or modified infrastructure, as described in 6.1, without the approval of the SCAA.

11.2 In accordance with STS-ADR, *Chapter 5, Subpart A, Section 5.9 – Completion*, the aerodrome operator is responsible for ensuring that the new or modified infrastructure complies with the STS-ADR. On completion of the aerodrome works and at least one month prior to operational use, the aerodrome operator shall submit Form *ASSI/FORM/10 - Application for approval of completion of infrastructure (see **Appendix C**)* and associated evidence demonstrating such compliance which includes, but are not limited to:

a. Safety case;

b. Aeronautical studies;

c. Site survey reports for example, as-built topographical surveys and/or drawings;

d. Computer simulation reports and test results for example, runway friction values, aircraft wheel path simulations, jet blast effect simulations;

e. Demonstrations for example, AES response time, generator switch-over

time, lighting controls; or

f. Inspection reports including testing and commissioning for example, pavement strength, AGL systems.

11.3 The aerodrome operator is encouraged to use the compliance checklist to outline methods demonstrating adherence to STS-ADR requirements for specific works and submit them to SCAA at the earliest opportunity. For complex works, SCAA may request additional supporting documentation.

11.4 For works that will be completed in phases, SCAA may grant approval of completion in a progressive manner to allow the aerodrome operator to commence operational use of certain parts of the works, subject to the submission of a detailed project plan. The project plan should include, at the least, the following information *(See **Appendix E** for a sample document)*:

a. Description of works;

b. Record of revisions;

c. Compliance checklist detailing the relevant STS requirements, method of compliance and reference documents as necessary; and

d. Estimated schedule of completion;

11.5 For major works that have significant impact on aircraft operations, such as introduction of a new runway or apron, SCAA may request the aerodrome operator submit a safety case, in consultation with other relevant stakeholders, detailing the safety assessment and mitigation strategies to manage the safety risks associated with operating the new infrastructure.

11.6 On the completion of aerodrome works and restoration of normal safety standards to the movement area, the aerodrome operator should cancel any AIP Supplement or NOTAM issued to advise of those works.

11.7 An aerodrome operator shall be required to inspect the aerodrome, as circumstances require, to ensure aviation safety during and immediately after any period of construction or repair of an aerodrome facility or equipment that is critical to the safety of aircraft operations, and at any other time when there are conditions at the aerodrome that could affect aviation safety.

12. Queries

12.1 Any queries relating to this ASP should be addressed to Head of Aerodrome Safety & Standards Inspectorate on seyaga@scaa.sc

Aerodrome Safety & Standards Inspectorate
Seychelles Civil Aviation Authority

Appendix A – Guidance for Aerodrome Work Plan

A1 Unless an aerodrome is closed during works in progress, or the work is of an emergency nature, an aerodrome operator shall not carry out aerodrome works, other than time-limited works, without proper planning in advance.

A2 A plan shall be established, setting out the arrangements for carrying out those aerodrome works in coordination with all other operational, maintenance and development activities at the aerodrome.

A3 When preparing a work plan, an aerodrome operator should consult:

a. commercial air transport operators using the aerodrome;

b. the aerodrome's air traffic control unit; and

c. if the work plan may affect its operations, the Rescue and Fire Fighting Service unit at the aerodrome so that the scope and impact of work is understood by related aerodrome users and service providers and to ensure the safety of aircraft operations at the aerodrome.

A4 The aerodrome operator shall ensure that clear and ample prior notification for works at the maneuvering area is provided to the Aeronautical Information Services, the aerodrome air traffic control unit, aircraft operators and other users or service providers of the aerodrome. Such notification shall include timely and accurate promulgation of AIP Supplements or NOTAMs, with clear details of the extent and period of works.

A5 An aerodrome operator shall be required to provide an explanation of his work plan, and any alterations or updates thereof, to the SCAA upon request.

A6 Aerodrome works, for which a work plan is required, shall be carried out in accordance with the arrangements set out in the work plan and any subsequent alterations or updates.

A7 The work plan should address details of any special requirements or restrictions arising during or on completion of the works. The work plan should outline details, if any, of special arrangements to be made during works if emergencies or adverse weather conditions occur.

A8 A work plan may not be required if the aerodrome operator closes the aerodrome to aircraft operations while aerodrome works are being carried out. The Aerodrome Safety & Standards Inspectorate, commercial air transport operators and all organizations and persons likely to be affected by the closure shall be given reasonable notice of intention to close the aerodrome.

A9 An aerodrome operator shall not close the aerodrome to aircraft operations due to aerodrome works unless an AIP Supplement or a NOTAM giving notice of the closure has been issued not less than 14 days before the closure takes

place.

A10 A work plan is not required for emergency aerodrome works carried out to repair damage to part of the maneuvering area, or to remove an obstacle, or if the works do not require any restrictions to aircraft operation. Where practicable, a NOTAM giving the nature and time and date of the commencement of the urgent repair works should be issued, as early as possible, before the commencement of the works.

Appendix B – ASSI/FORM/08 - Notification of New and or Proposed Changes to Aerodrome Infrastructure

Submission Date:		
1. Particulars of the applicant		
Name of Aerodrome:		
Airport Certificate No.:		
Name of Applicant:		
Contact details of applicant:	Tel:	Email:
2. Project Details		
Title of works:		
Reason for Change:		
Brief Description of proposed change:		
Planned Commencement Date of Works:		
Estimated Completion Date of Works:		
3. Supporting Documents to be attached with this submission: 1. Compliance Matrix 2. Scaled Drawings		
4. Declaration		
I hereby declare that the above information and all documents submitted in this form are true in every aspect. Name of Project Manager: _____ Designation: _____ Signature: _____		

Appendix C – ASSI/FORM/09 - Notification Of Variations To Proposed Changes To Aerodrome Infrastructure

Submission Date:	**Revision Number:**	
1. Particulars of the applicant		
Name of Aerodrome:		
Airport Certificate No.:		
Name of Applicant:		
Contact details of applicant:	Tel:	Email:
2. Project Details		
Title of Project:		
Reason for Variations:		
Brief Description of the Variations:		
Is there any non-compliance with relevant requirements of STS-ADR as a result of the variations? ☐No ☐Yes (please provide details of the potential non-compliance including any supporting documents)		
Does the variation(s) affect the planned commencement and completion date of works: ☐No ☐Yes (please indicate the revised dates) _____		
Planned Commencement Date of Works:		
Estimated Completion Date of Works:		
3. Supporting Documents to be attached with this submission:		
4. Declaration		
I hereby declare that the above information and all documents submitted in this form are true in every aspect. Name of Project Manager: _____ Designation: _____ Signature: _____		

Appendix D – ASSI/FORM/10 - Application For Approval Of Completion Of Infrastructure

Submission Date:	**Submission Reference Number:**	
1. Particulars of the applicant		
Name of Aerodrome:		
Airport Certificate No.:		
Name of Applicant:		
Contact details of applicant:	Tel:	Email:
2. Project Details		
Title of Works:		
Areas where approvals are sought for:		
Planned Commencement Date of Operations in these areas:		
3. Supporting Documents demonstrating compliance with STS-ADR:		
4. Declaration		
I hereby declare that the above information and all documents submitted in this form are true in every aspect. Name of Project Manager: _____ Designation: _____ Signature: _____		

Appendix E – Project Plan Template

Project Plan for
<<Title of Project/Works>>

Document Number:	Revision:	Date:

Records of Revisions

Revisions	Date:	Descriptions of revisions	Submitted by

Compliance Checklist

Title of Works: _____

Description of works: _____

SUBJECT: PHYSCIAL CHARACTERISTIC		RESPONSE BY OPERATOR				
QUESTIONS	**REF TO STS-ADR**	**YES**	**NO**	**N/A**	**METHOD OF COMPLIANCE** (To indicate the method to demonstrate compliance at completion eg. Tests, survey reports, aeronautical studies, etc)	**REFERENCES & REMARKS** (Include reference to documentation or reason for non-compliance / non-applicability)
1.						
2.						
3.						

Completed By:	
Date:	
Signature:	

ESTIMATED SCHEDULE OF COMPLETION

Number	Description of works	Estimated date of completion