NATO STANDARD

AATMP-08

MARKING AND LIGHTING OF AIRFIELD OBSTRUCTIONS

Edition B, Version 1

JUNE 2023

NORTH ATLANTIC TREATY ORGANIZATION

ALLIED AIR TRAFFIC MANAGEMENT PUBLICATION

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NORTH ATLANTIC TREATY ORGANIZATION (NATO)

NATO STANDARDIZATION OFFICE (NSO)

NATO LETTER OF PROMULGATION

19 June 2023

1. The enclosed Allied Air Traffic Management Publication AATMP-08, Edition B, Version 1, MARKING AND LIGHTING OF AIRFIELD OBSTRUCTIONS, which has been approved by the nations in the AIR TRAFFIC MANAGEMENT – COMMUNICATIONS, NAVIGATION AND SURVEILLANCE ADVISORY GROUP, is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 3346.

2. AATMP-08, Edition B, Version 1, is effective upon receipt and supersedes AATMP-08 , Edition A, Version 1, which shall be destroyed in accordance with the local procedure for the destruction of documents.

3. This NATO standardization document is issued by NATO. In case of reproduction, NATO is to be acknowledged. NATO does not charge any fee for its standardization documents at any stage, which are not intended to be sold. They can be retrieved from the NATO Standardization Document Database (https://nso.nato.int/nso/) or through your national standardization authorities.

4. This publication shall be handled in accordance with C-M(2002)60.

Dimitrios SIGOULAKIS
Lieutenant General, GRC (A)
Director, NATO Standardization Office

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.	

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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
FRA	France will not implement paragraph 5, Chapter 1, of this publication. Indeed, French arrester barriers of the net type are not fitted with flashing red warning lights indicating that the barrier is erected/activated, even accidentally.
USA	The USN reserves the right to use NAVAIR 51-50AAA-2 as it is equivalent to the lighting and marking of obstructions standards in ICAO Annex 14 Volume I, with the exception of minor differences in the dimensions of safety clearance surfaces, the use of high-intensity lights for obstacles above 150 meters, and lighting of obstructions below the safety clearance surfaces.

Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.

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CHAPTER 1 INTRODUCTION

1.1. SUMMARY

1. The purpose of AATMP-08 is to standardize the marking and lighting of obstacles on NATO airfields in order to provide the maximum degree of safety for NATO Armed Forces while providing commonality with civil standards. This commonality is to be maintained without detracting from the requirement for unique military operations.

2. Participating nations agree to adopt the standard method of marking and lighting of airfield obstacles as detailed in ICAO Annex 14 to The Convention International Civil Aviation, Volume 1, (eighth edition) Chapter 6 dated July 2018. Participating nations further agree to accept the following definition of airfield obstacles as well as adopt the standard method of marking and lighting those obstacles unique to military operations as detailed below. The provisions of this agreement do not apply to airfields where tone-down measures have been incorporated.

3. Participating nations accept the standard colours according to the recommendations in ICAO publication, Annex 14, Volume I; Eighth Edition, July 2018 – Aerodrome Design and Operations.

4. For the purpose of this agreement the following definition is used to describe an airfield obstacle:

> ‘All fixed (whether temporary or permanent) and mobile objects or parts thereof, that are located on an area intended for the surface movement of aircraft or that extend above the clearance planes established by application of the current criteria of the host nation.’

5. Arrester barriers of the elevated type are considered ordinary obstacles. In addition to obstacle lights, airfield barriers of the "net type" are to be fitted with warning lights on the runway installation. These lights are to project into the approach sector and may be angled in this direction to meet airfield requirements. Two flashing unidirectional red lights located adjacent to the barrier directed onto the overshoot area enable a pilot to see that the downwind barrier is accidentally erected or that he/she is attempting to land in the wrong direction. These lights operate continuously until the barrier is lowered. The two flashing lights are mounted on frangible posts 0.9m (3ft) high overall, located just outside the "brake mechanism assembly". They are actuated by the raising mechanism. It is recommended that physical checks of the barrier and warning light system be made twice daily and after each change of direction of traffic.

6. Power supply and control circuitry for the obstacle lights shall be in accordance with the current edition of STANAG 3316.

1.1.2. SAFETY ANNEX

1. Safety considerations in implementing STANAG 3346 are contained in Annex A.

ANNEX A Safety Considerations in Implementing STANAG 3346 Marking and Lighting of Airfield Obstructions

Introduction:
This Annex is intended for NATO Led Service Providers in implementing this STANAG at existing or planned airfields as well as during deployed operations.

It includes general considerations such as the suitability of the STANAG/AATMP for the required operations, currency with regard to edition number and amendments, applicability of related documents, nations ratifying and reservations.

Specific safety considerations are identified by the custodian of the STANAG/AATMP and national SMEs along with consequences and possible mitigations.

Custodian POC. For users to provide any comments and lessons learned: Len Ellchuk (Canada) thomas.ellchuk@forces.gc.ca.

General:
In the implementation of any STANAG/AATMP, the NATO Led Service Provider should verify the items listed below using the NATO Standardization Agency (NSA) pass word protected Website https://nsa.nato.int/nsa/

A. Suitability	Review STANAG 7210 (AEP-68) *Guidance in the Selection of STANAGs for Deployed Operations, to determin*e if the STANAG/AATMP is suitable for the type of operation required.
B. Currency	Ensure that STANAG/AATMP Edition and any Amendments are the most current as shown on the NSA website.
C. Related Documents	Obtain related documents cited in the STANAG/AATMP and, in particular, review those documents where criteria as been adopted. STANAGs are available on the NSA Website whereas civilian documents, such as ICAO, may be available from your Aviation or Engineering Commands.
D. Implementation Status	Review the ratification status along with any reservations to the STANAG/AATMP on the NSA Website and, in particularly, the status for those for nations taking part in the operation.
E. Compliance	For existing airfield facilities and procedures, determine if they are in compliance with the criteria and standards specified in the STANAG/AAMTP.

Specific:
The safety considerations, consequences and possible mitigations listed below by the STANAG/AATMP Custodian assisted by Subject Matter Experts are by no means exhaustive or fully applicable to all environments or situations.

Full safety surveys in accordance with STANAG 4720 *NATO Standard for Air Traffic Management (ATM) Safety Management System (SMS)*, shall still be carried out.

Safety Considerations	Consequences	Possible Mitigations
Not all obstruction lights with Light Emitting Diode (LED) light sources are visible using night vision goggle (NVG) equipment.	Flight crews using NVG equipment may not be given adequate warning of obstacles in the flight path resulting in the need for last minute course corrections or collisions with obstacles.	Test the visibility of LED based obstruction lights with NVG equipment prior to deploying LED based obstruction lights. Alternatively utilize obstruction lights with either conventional incandescent lamps or NVG compliant LEDs.
LED type obstruction lights may not generate sufficient heat to ensure the light is cleared of snow and ice accumulation.	Flight crews may not be given adequate warning of obstacles in the flight path resulting in the need for last minute course corrections or collisions with obstacles.	Confirm the satisfactory performance of LED type obstruction lights in cold weather conditions. Alternatively utilize obstruction lights with either conventional incandescent lamps or internal heaters proven to provide satisfactory performance in the environmental conditions in which the obstruction lights will be used.
Obstruction lights typically mark tall structures frequently making them difficult to access for maintenance purposes. Without proper maintenance, obstruction lights fail.	Flight crews may not be given adequate warning of obstacles in the flight path resulting in the need for last minute course corrections or collisions with obstacles.	Consider ease of maintenance when designing obstruction lighting systems. Provide a means to easily access obstruction lights for maintenance purposes by providing maintenance trucks with lift mechanisms, secure pathways to reach lights from fixed structures, mechanisms to drop obstruction lights to grade level, etc.
Safety of maintenance personnel.	Injury or death of maintenance personnel due to electrocution or falls.	Ensure equipment is maintained by qualified personnel. Employ safety procedures such as fall arrest systems where appropriate.

ANNEX B RELATED DOCUMENTS

A. ICAO Convention on International Civil Aviation, Annex 14 Volume 1; Eighth Edition, July 2018 – Aerodrome Design and Operations.

B. STANAG 3316 – Airfield Lighting.

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