

REPÚBLICA DE MOÇAMBIQUE

Date: 01 September 2020

SECTION 1 GENERAL

1.1 OBJECTIVE

This Technical Circular (CT) provides guidance to Air Navigation Service Provider on the preparation and contents of a Manual of Air Traffic Services (MATS) for Air Navigation Service Provider in line with SARPS in Annex 11, MOZCAR Part 172 and MOZCATS 172.

1.2 APPLICABILITY

This CT apply to all Air Navigation Service Providers, who operate in Mozambique as prescribed on MOZCAR 172.

1.3 REFERENCES

- 1) MOZCAR Part 172 – Organização de Serviços de Tráfego Aéreo
- 2) MOZCATS Part 172 – Certification of Air Traffic Management Services Organizations
- 3) ICAO Doc 4444 – PANS – ATM - Air Traffic Management
- 4) CIA 07/17 - Processo de Certificação do Prestador dos Serviços de Navegação Aérea
- 5) CT 100-001 - Statement of Compliance with Regulatory Requirements

1.4 CHANGES

- 1) This is an original issuance of this TC.

1.5 BACKGROUND

1.5.1 MOZCAR 172 and MOZCATS 172 require an air traffic management to establish an Air Traffic Services Manual, in accordance with the specified requirements, containing all pertinent information on the organization and ATS Units site, facilities, services, equipment, operating procedures, organization and management including a safety management system to guide operational staff in the performance of their duties.

1.5.2 In order to obtain IACM Certificate, the Air Navigation Service Providers must ensure that the manual follows the organisation, structure and include, as a minimum, the contents specified in the governing regulation, as applicable to the operation.

1.5.3 Air Navigation Service Providers are required to amend or revise the MATS, as necessary, to ensure that the information contained therein is kept up-to-date, by reflecting any changes to the regulatory and IACM requirements or to the operation. All such amendments or revisions must be submitted to IACM for approval prior to implementation and issued to all personnel that are required to use the MATS.

SECTION 2 – MATS APPROVAL PROCESS

2.1. Initial approval of the MATS

2.1.1. During the initial Air Navigation Service Provider's Certification process operators are required to submit the MATS to the IACM for approval.

2.1.2. The application should contain:

- i) the Checklist "Form number 1 - Manual of Air Traffic Services Compliance Checklist";
- ii) two originals of the MATS (may be presented in one or more volumes);

2.1.3. Upon receipt, IACM performs a cursory review of the application and informs the applicant, in writing, of its acceptability. Incomplete applications are returned with an explanation of the reason for rejection.

2.1.4. A detailed review of the MATS is performed by comparison of its contents with the applicable regulatory requirements, considering all aspects of the proposed operations. The Air Navigation Service Provider/ATS Unit is notified of any deficiencies for correction;

2.1.5. Upon being satisfied that all deficiencies identified during the manual review process and during the demonstration and inspection phase have been corrected and ascertaining that the manual contents properly addresses all applicable regulatory requirements and correctly reflects the ANSP organization and operation, in conformity with the approvals and authorisations sought in the ANSP operations specifications, IACM issues the approval of the MATS.

2.1.6. IACM approval of the MATS is reflected by the stamping and signature on the ANSP Statement and Air Navigation Service Provider Approval and list of effective pages of the two original manuals.

2.1.7. The IACM keeps one original of the approved MATS and returns the other original to the applicant.

2.2. Amendment and revision of the MATS

2.2.1. The ANSP (ATS Unit) is required by regulation to keep the information in the MATS up-to-date. The MATS should be amended whenever a change occurs in the requirements or in the operation.

2.2.2. All amendments and revisions to the MATS, except urgent temporary revisions required in the interest of safety, where a submission must be made with 7 days of adoption, must be approved by IACM prior to implementation.

2.2.3. The application for an amendment or revision should contain:

- i) cover letter explaining the proposed changes;
- ii) two originals of the proposed amendment or revision, including the amended pages with highlights of the proposed changes, as per the revision procedures, and updated List of Effective Pages and Table of Contents;
- iii) if affected, an updated version of the existing Statement of Compliance with the applicable regulations MOZCAR 172.

2.2.4. The approval process follows, with the necessary, adaptations the steps described above for the initial approval.

SECTION 3 – ORGANISATION, STRUCTURE AND CONTENTS OF THE MATS

3.1. Organisation Of The MATS

3.1.1. When preparing a MATS the operator should ensure that the policies and procedures contained in the manual attain the following objectives:

- i) implement, and are not contrary to, the Civil Aviation Regulations of Mozambique (MOZCAR);
- ii) do not contravene the terms and conditions in the Air traffic management service Certificate and associated operations specifications;
- iii) provide clear, complete and detailed operating instructions, policies and procedures so that operational personnel are fully informed of what is required of them. Procedures shall be effective, represent sound safety philosophy and be capable of being accomplished;
- iv) make provisions for revision to ensure that the information contained therein is kept up-to-date; and
- v) present the necessary guidance and instructions to personnel in a suitable and convenient easy to read, easy to amend format.

3.1.2. The MATS may be complemented by other manuals, covering specific subjects. The size, as well as the number of volumes of the MATS will depend upon the size and complexity of the proposed activities.

3.1.3. In all cases, the following areas must be considered:

- i) Organization and readability. The manual(s) shall be organized so that information specific to various employee positions and types of operations is easy to locate, clear, concise, and unambiguous. Tables of contents shall be detailed enough so that specific subject areas may be easily and expeditiously located. Print quality, illustrations, and graphics shall be clear and readable. Each manual and appendix shall be numbered and issued according to a specific distribution list, and each holder made responsible for its prompt and accurate update. The distribution list shall contain all operations personnel and others requiring the information therein for proper performance of their duties.
- ii) Validity and accuracy. Technical information contained in manuals such as coordinates data, laboratory data, suppliers' certificates, etc. shall accurately reflect data provided from the source or shall have been developed through the use of accepted and approved methods;
- iii) Consistency. Information presented in the various sections or volumes of the manual shall be consistent with that presented in other sections;
- iv) Currency and conformity. Information contained in the manual shall reflect current company organization, equipment, procedures and policies. The manual(s) shall be easy to update and contain a list of effective pages;

v) Distribution and availability. The operator shall have an effective system for distributing and updating manuals. The individual(s) responsible for entering changes in specific manuals shall be identified. The IACM must be provided with copies of all manuals;

vi) Content. The MATS Compliance checklist form number 1 (in attach) shall be used by the operator to ensure that all subject areas are adequately addressed in the procedure manual. Certain items may not apply to a particular operator in which case the checklist item shall be annotated – not applicable. More specific information on each checklist item is outlined below. This same checklist is used by IACM inspectors to determine the acceptability of the material contained in the manual(s).

3.1.4. The MATS shall contain the Air Navigation Service Provider and Air Traffic Service Unit organization procedures. It states the organization management team and the organization commitment to comply with the regulatory requirement and to maintain the standards established during the approval certification process.

3.1.5. It explains in details the ANSP's responsibilities, functions and obligations. It further explains the regulatory process, methods, procedures and capabilities the operator employs to satisfy these regulatory requirements.

3.1.6. The MATS defines the ANSP's management structure, quality system management, maintenance activity coordination, duties and responsibilities of management personnel.

3.1.7. A description of the provider's organizational structure and a statement setting out the functions that the provider performs, or proposes to perform under MOZCAR Part 172;

3.1.8. A description of the chain of command established, or proposed to be established, by the provider and a statement of the duties and responsibilities of any supervisory positions within the organizational structure;

3.1.9. A statement showing how the provider determines the number of operational staff required including the number of operational supervisory staff;

3.1.10. A list of the services that the provider provides, or proposes to provide;

3.1.11. A statement for each service, showing the hours of operation of the service;

3.1.12. A statement, for each service, that identifies the particular airspace within which the service is provided, or proposed to be provided;

3.1.13. A statement of the responsibilities and functions for each operating position;

3.1.14. A description of the procedures to be followed to ensure all operational staff are familiar with any operational changes that have been issued since they last performed operational duties;

- 3.1.15. A description of the provider's training and checking program;
- 3.1.16. A description of the procedures to be used in commissioning new facilities, equipment and services;
- 3.1.17. The procedures to be follow for revising the operations manual.

3.2. Structure Of The MATS

The MATS shall contain, as a minimum, the following sections, including some of their requirements:

- I. a ANSP or ATS unit Statement and Manual of Air Traffic Services Approval;
- II. a Distribution List;
- III. a Record of Amendments;
- IV. a Exemptions Record;
- V. a List of Pages in Effect;
- VI. a Table of Contents;

PART I – GENERAL

This part shall include:

- 1.1 The Object and Scope of The Manual of Air Traffic Services;
- 1.2 Law and Regulations Requirements;
- 1.3 Procedures to be followed for revising the MATS;
- 1.4 Use of Common Reference Systems;
- 1.5 Definitions and Abbreviations;
- 1.6 Acronyms;
- 1.7 Facilities;
- 1.8 Three letter designators and ICAO Four letter indicators;
- 1.9 List of Aircraft Nationality Marks.

PART II – AIR NAVAGATION SERVICE

This section shall include:

Section 1. GENERAL

- 1.1 Purpose

- 1.2 Type of services to be provide
- 1.2 Description of the services
- 1.3 Types and functions of ATS units in Mozambique
- 1.4 Dimensional units in connection with ATS in Mozambique
- 1.5 Airspace Classification
- 1.6 Allocation of responsibility

PART III - OPERATING PROCEDURES

This section shall include:

- 3.1 A description of the operating procedures for the provision of each of the air navigation services listed in Part 2/ including:
 - 1) Procedures for the provision of each type of services;
 - 2) Procedure for operations of facilities, and equipment;
 - 3) Procedures for installation/and acceptance of facilities and equipment;
 - 4) Procedures for inspection of facilities;
 - 5) Contingency plans for part or total system failure;
 - 6) Emergency plan, including:
 - I. planning of regular exercises in relation to the emergency plan;
 - II. description of the tasks in the emergency plan;
 - III. a procedure describing how the ANSP regularly verifies the information in the emergency plan/ including keeping an up-to-date list of the persons and contact details in the emergency plan;
 - IV. description of the roles and responsibilities during emergencies;
 - V. description of the involvement of and coordination with/ other agencies during emergencies;
 - VI. availability of the required minimum emergency equipment including an adequately equipped emergency operation center;
 - 7) Operational safety during work or changes: when executing work on the ANSP facilities and equipment or planning changes in the system:
 - I. procedure describing the necessary notification to the different stakeholders;

- II. risk assessment of the work or changes;
 - III. roles and responsibilities of the various parties/ including their;
 - IV. relationship and the enforcement of safety measures;
 - V. safety monitoring during the work or planned changes;
 - VI. reopening of facilities/ where relevant;
 - VII. necessary coordination with stakeholders including aerodrome operator;
- 8) Low visibility operations:
- I. coordination with the aerodrome operator and appropriate stakeholders/ including awareness of the status of both low visibility procedures (LVP) and the deterioration of visual aids;
 - II. a procedure describing the actions to be taken when LVP is in process (vehicle control/ visual range measurement if necessary);
- 9) Security measures as required in the Civil Aviation (Security) Regulations;
- 10) Accident, serious incident/ and incident reporting, including:
- I. Responsibilities for reporting;
 - II. Timelines for reporting for each type of occurrences;
 - III. Analysis of safety data, and safety information collected,
 - IV. Communications with the Authority, and accident investigation agencies.
- 11) General Administrative Instructions for ATCOS

3.2 For each procedure:

- a) A description of the responsibilities of the ANSP;
- b) A list of the tasks that are to be achieved by the ANSP or its subcontractors;
- c) When is the procedure activated;
- d) Who are the persons responsible for the implementation and supervision;
- e) What are the activities to be carried;
- f) A step-by-step list of tasks and sub-tasks needed to complete the procedure;
and
- g) Details such as the equipment to be used, access to it, frequency of application and operating modes.

PART IV - ORGANIZATION & MANAGEMENT

This section shall include:

4.1 Particulars of the ANSP administration including:

- a) An ANSP organizational chart showing the names and positions of key personnel, including their responsibilities;
- b) A description of the chain of command established, or proposed to be established, by the provider and a statement of the duties and responsibilities of any supervisory positions within the organizational structure
- c) Safety responsibilities; and
- d) Particulars of the accountable executive, safety manager, and persons responsible for operations and maintenance;

4.2 A description of the arrangements for coordination with other ANSPs, third-parties, and, where applicable, supervision of sub-contractors;

4.3 A description of the arrangements in place to ensure that the ANSP has adequate number, and appropriately trained personnel for the services listed, including:

- a) Methodology for establishing the minimum number of personnel required for each functional area;
- b) Duties and responsibilities of personnel;
- c) Minimum qualifications of personnel;
- d) Working hours;
- e) Shift(s);
- f) Fatigue management;
- g) Recruitment procedures;
- h) Training program;
- i) Procedure for training needs assessment;
- j) Procedure for developing training plans, and tracking implementation;
- k) Training, performance assessment and tracking of information; and
- l) Procedure for maintaining training records;

4.4 As applicable, a description of the safety management system established in accordance with the provisions of Mozambique civil aviation safety management regulations, which includes the related safety procedures and documents as well as the safety policy signed by the accountable executive, organization of safety management, safety data collection and processing system, safety risk management, safety assurance and safety promotion.

4.5 As applicable, a description of the quality management system established in accordance with the provisions of Mozambique quality management system regulations, which includes the related quality procedures and documents as well as the quality policy signed by the accountable executive, organization of quality management, quality planning, quality control, and quality improvement processes.

PART V - ATS SAFETY MANAGEMENT

This section shall include:

1. General
2. Objectives
3. ATS safety management activities
4. Monitoring of safety levels
5. Safety reviews
6. Safety assessments
7. Safety-enhancing measures

PART VI - STANDARDS FOR THE PROVISION OF AIR TRAFFIC SERVICES

This section shall include:

6.1 AIR TRAFFIC SERVICES

1. Introduction
2. Language Requirement
3. Air Traffic Services
4. Objectives of Air Traffic Services
5. Air Traffic Control Service

6. Air Traffic Advisory Service
7. Flight Information Service
8. Alerting Service
9. Air Traffic Control Units
10. Safety and Expedition

6.2 FLIGHT RULES

1. Division of Airspace
2. Classification of Airspace
3. Speed Limit
4. Visual Flight Rules
5. Instrument Flight Rules
6. Flight in VMC
7. Aerodrome Traffic Zone (ATZ)
8. Cancellation of IFR Flight
9. Special VFR Flight
10. Class C Airspace
11. Filing of Flight Plans
12. Time in air traffic service
13. Position Reporting Procedures
14. Strip Marking Rules
15. Non-Standard Routes (Flexible Routes, Operator Prefer Route)
16. Repetitive Flight Plan
17. Availability of Supplementary Flight Plan Information
18. Exemptions and Non-Standard Flights
19. Aircraft Proximity (AIRPROX)
20. Search Action
21. Failure of Navigation Lights
22. Operations of Aircraft with Unserviceable Equipment
23. Action When Captive Balloons Break Free
24. Radio Mandatory Zones

6.3 SEPARATION STANDARDS

1. Provision of Standard Separation of controlled traffic
2. Increased Separation
3. Reduced Separation
4. Essential Traffic Information
5. Vertical Separation
6. Horizontal Separation
7. Separation of aircraft holding in flight
8. Minimum separation between departing aircraft
9. Separation of departing aircraft from arriving aircraft
10. Clearances to fly maintaining own separation while in visual meteorological conditions
11. Lateral Separation
12. Longitudinal Separation – Time and Distance
13. Wake Turbulence Separation Requirements
14. Reduced Vertical Separation Minima (RVSM)
15. Separation Based on ATS Surveillance System Information

6.4 SEPARATION IN THE VICINITY OF AERODROMES

1. Reduction in separation minima in the vicinity of aerodromes
2. Essential local traffic
3. Procedures for departing aircraft
4. Information for departing aircraft
5. Procedures for arriving aircraft
6. Information for arriving aircraft
7. Operations on parallel or near-parallel runways

6.5 CONTROL OF TRAFFIC

1. Air Traffic Control Clearances
2. Contents of Clearances
3. Clearance Limit
4. Conditional Clearances
5. Route

6. Allocation of Cruising Levels
7. Amendments to Clearances
8. Withholding Clearance
9. Data Display
10. Flight Priorities
11. Notification of Flights
12. Transfer of Control
13. Expected Approach Time (EAT)
14. Calculated Take Off Time (CTOT)
15. Formation Procedures
16. Ground Proximity Warning System
17. Non-Deviating Status (NDS)
18. Unusual Aerial Activity
19. Balloon Flights in Controlled Airspace
20. Glider Operations in Controlled Airspace
21. Police Flights
22. Helicopter Emergency Medical Service (HEMS)

PART VI – PROCEDURES – AIR TRAFFIC SERVICES

This section shall include:

6.1. Aerodrome Control

1. Provision of Services - functions of aerodrome control towers
2. Responsibilities
3. Selection of runway-in-use
4. Co-ordination
5. Transfer of Control
6. Airspace Classification
7. Effect of Weather on Operations
8. Information to Aircraft
9. Essential Aerodrome Information
10. Grass Aerodromes
11. Control of Surface Traffic

12. Taxiing Aircraft
13. Clearance Limit
14. Line-Up Clearance
15. Take-off Clearance
16. Cancelling Take-off Clearance
17. Designated Positions in the Traffic Circuit
18. Arriving Aircraft
19. Landing
20. Exemptions from Separation Minima in the Traffic Circuit
21. Low Approach Restrictions
22. Landing Direction and Runway-in-use
23. Runway Changes
24. Closure or Restricted Operation of Aerodromes
25. Extensions of Watch
26. Availability of Aerodromes for Special Flights
27. Work on the Manoeuvring Area
28. Ground Signals and Markings
29. Inspection of Runways
30. Aerodrome Fire Service
31. Reduced runway separation minima between aircraft using the same runway

6.2. Approach Control

1. Provision of Services
2. Information to Aircraft
3. Information to Other Units
4. Co-ordination
5. Transfer of Control
6. Delegation
7. Transfer of Communication
8. VFR Flights
9. Arriving Aircraft
10. Transmission of Meteorological Information

11. ATIS
12. Visual Approach
13. Instrument Approaches
14. Holding Procedures
15. Approach Sequence
16. Expected Approach Time
17. Holding for Weather Improvement
18. Diversions
19. Aerodromes Receiving Diversions
20. Departing Aircraft
21. Joining and Overflying Aircraft

6.3. Area Control Procedures

1. Principles of Operation
2. Co-ordination – Area Control Centers
3. Co-ordination – Approach Control Units
4. Responsibilities
5. Separation
6. Aircraft Off Track
7. Position Reports
8. Additional Services – Approach
9. Aircraft Crossing and Joining
10. Military Aircraft
11. Aircraft Holding
12. Diversion

6.4. Air Traffic Advisory Service

6.4.1 Flight Information Service

1. Introduction
2. Limiting Factors
3. Proximity warnings
4. Minimum Flight Level Outside Controlled Airspace

6.5 ATS surveillance systems

1. Use of ADS-B surveillance
2. Operation of ADS-B transmitters
3. Verification of level information
4. Determination of level occupancy using ATS surveillance system-derived level information
5. Establishment of identification
6. Position information
7. Use of Speed Control
8. Termination of ATS surveillance services
9. Obstacle clearance
10. Vectoring special VFR

6.6 Airborne Collision Avoidance System (ACAS)

1. Introduction
2. Traffic Alert and Collision Avoidance System: TCAS II Warnings
3. Effects on ATC Operations
4. Nuisance Advisories
5. Departure from ATC Clearance
6. TCAS Phraseology (TCAS resolution and advisory)
7. Controller Reporting

6.7 Aircraft Emergencies

1. Introduction
2. Controllers Responsibility
3. Recognising an Emergency Situation
4. Distress and Urgency Messages
5. Indications by Visual Signal from Aircraft
6. Indications on the Situation Display
7. Emergency Triangle Procedure
8. Emergency Aircraft – Selection of Controlling Agency
9. Distress and Diversion Cell
10. Intercepted Messages
11. Aircraft Emergencies – General Principles
13. Fuel Jettisoning

14. Emergency Overweight Landings
15. Facilitation

PART VII - FLIGHT INFORMATION SERVICE AND ALERTING SERVICE

This part shall include:

- 7.1 Flight information service
- 7.2 Alerting service

PART VIII - AIRCRAFT ACCIDENT, INCIDENT AND AIRPROX REPORTS

This part shall include:

- 8.1 Explanation of Terms
- 8.2 Reporting Action
- 8.3 Reporting Action at Aerodromes
- 8.4 Reporting Action at ACCs
- 8.5 Accident Reports
 1. Telephone
 2. Written Reports
- 8.6 Serious Incident Reports
 1. Telephone
- 8.7 AIRPROX Reports
 1. Search Action
- 8.8 Mandatory Occurrence Reports (MOR)
 1. Reporting Procedure
- 8.9 Incidents on Board an Aircraft in Flight
- 8.10 Matter Allegedly Dropped by Aircraft

PART IX - MISCELLANEOUS REPORTS

This part shall include:

- 9.1 Bird Strikes
- 9.2 Maritime Incidents
- 9.3 Unidentified Flying Objects
- 9.4 Sonic Boom

9.5 Malicious Interference to VHF Communications

PART X - METEOROLOGICAL SERVICES

This part shall include:

10.1 Briefing of Controllers

10.2 Explanation of Terms

10.3 Supply of Information

10.4 Aerodrome Meteorological Reports (Routine)

10.5 Aerodrome Meteorological Reports (Special)

10.6 Coded Aerodrome Weather Reports

10.7 SIGMET

10.8 Forecasts

10.9 Aerodrome Warnings

10.10 Provision and Exchange of Information Relevant to Volcanic Ash

PART XI - TELECOMMUNICATIONS SERVICES

This part shall include:

11.1 The Aeronautical Mobile Service

11.2 Air-Ground Communications and Surveillance Systems

11.3 Aeronautical Fixed Service

11.4 Serviceability of Equipment

11.5 Aircraft Radio Equipment Fault Reports

11.6 Withdrawal of Approach Aids

PART XII - AERONAUTICAL INFORMATION SERVICE

12.1 Introduction

12.2 AIS Office

12.3 Amending the Aeronautical Information Publication

12.4 Sponsors of Amendments to the AIP (AIRAC and Non-AIRAC)

12.5 Mozambique AIP Amendment Service/Supplements to the AIP and AICs

12.6 Telephone Information Line

12.7 NOTAM (Notices to Airmen)

PART XIII - COORDINATION

This part shall include:

- 13.1 Coordination in respect of the provision of air traffic control service
- 13.2 Coordination in respect of the provision of flight information service and alerting service
- 13.3 Coordination in respect of the provision of air traffic advisory service
- 14.4 Coordination between air traffic services units and aeronautical telecommunication stations
- 15.5 Coordination between military authorities and air traffic services
- 16.6 Coordination between meteorological and air traffic services

PART XIV - AIR TRAFFIC SERVICES MESSAGES

This part shall include:

- 14.1 Categories of messages
- 14.2 General provisions
- 14.3 Methods of message exchange
- 14.4 Message types and their application

PART XV - PHRASEOLOGIES

This part shall include:

- 15.1 Communications procedures
- 15.2 General
- 15.3 ATC phraseologies
- 15.4 ATS surveillance service phraseologies
- 15.5 Automatic dependent surveillance — Phraseologies
- 15.6 Alerting phraseologies
- 15.7 Ground crew/flight crew phraseologies

PART XVI - PROCEDURES RELATED TO EMERGENCIES, COMMUNICATION FAILURE AND CONTINGENCIES

This part shall include:

- 16.1 Emergency procedures
- 16.2 Special procedures for in-flight contingencies in oceanic airspace
- 16.3 Air-ground communications failure

- 16.4 Assistance to VFR flights
- 16.5 Other in-flight contingencies
- 16.6 ATC contingencies
- 16.7 Other ATC contingency procedures
- 16.8 Procedures for ATS units when a volcanic ash cloud is reported or forecast

PART XVII - CONTROL ROOM ADMINISTRATION

This section shall include:

- 17.1 Watch keeping Rosters
- 17.2 Regulation of Controllers' Hours
- 17.3 Taking-Over Watch
- 17.4 Handing-Over Watch
- 17.5 Handing-Over an Operational Position
- 17.6 Combined Operational Positions
- 17.7 Visitors
- 17.8 Clocks
- 17.9 Publications
- 17.10 ATC Watch Log
- 17.11 Aircraft Movement Log
- 17.12 Impounding of ATC Watch Logs
- 17.13 Disposal of Records

PART XVIII - APPENDICES

This part shall include:

- APPENDIX 1. Flight plan
- APPENDIX 2. Air traffic services messages
- APPENDIX 3. Air traffic incident report
- APPENDIX 4. Pressure Setting Tables
- APPENDIX 5. Communications Technique and Standard Phraseology
- APPENDIX 6. Speed Control Guidance
- APPENDIX 7. Tailwind and Crosswind Component Table

The Contest of the MATS

3.3.1. The contents of the MATS shall cover all Parts, Titles, Paragraphs and subparagraphs as defined in MOZCAR 172, and MOZCATS 172.

3.3.2. The ANSP shall use the Compliance checklist form number 1 (in attach) to ensure that all pertinent information is included in each Part of the MATS.

INSTITUTE OF CIVIL AVIATION OF MOZAMBIQUE
THE CHAIRMAN OF THE BOARD AND CEO



Capt. João Martins de Abreu

Form Number: 01

NAME OF AIR NAVIGATION SERVICE PROVIDER

MANUAL OF AIR TRAFFIC SERVICES COMPLIANCE CHECKLIST

Note 1: The Team Leader may delegate the assessment of development of this manual of air traffic service in full or in parts to any other member of team. Nevertheless the Team Leader remains responsible. On completion of the assessment, the filled check list shall be enclosed to this Manual of Air Traffic Services and sent together to IACM for the purpose of assessment and to be included in the ANSP (Air Traffic Services) certification file.

Note 2: The details listed represent the minimum content of a manual of air traffic service. The Team Leader must bear in mind that the content of this manual of air traffic service must reflect the complexity and operating environment of this particular Air Navigation Provider (ATS Unit).

Name of ANSP (ATS Unit): _____ Checked by: _____

Name of Team Leader: _____ Revised by: _____

Date: _____ Date of Approval: _____

AMENDMENT OF MANUAL OF AIR TRAFFIC SERVICE NUMBER _____



Item	Requirement	Yes	No	Reference Pg. and Comments
1. WRITING, PRESENTATION AND ADMINISTRATION				
1.	Is the Manual of Air Traffic Services (MATS) signed by the Air Navigation Service Provider Representative?			
2.	The first pages of the MATS: • AO's Statement and MATS Approval? • MATS Distribution list? • Record of amendment? • Exemptions Record? • List of effective pages? • Table of contents? • List of Appendices? • List of authorized deviations?			
3.	Page heading centered, showing the title of the manual and the name of the ANSP/ATSU?			
4.	Page footing showing: • The edition & revision number and the date it came into effect? • The current page number and the total number of pages?			
5.	Reference publications or documents not included, but being part of the MATS published separately?			
6.	Is the format of the MATS A4 paper size?			
7.	MATS easiness of the insertion or the removal of pages when updating?			
8.	MATS eight (18) chapters identified with dividers?			
9.	Procedure to ensure that IACM is advised in writing within 14 days of any amendment of the AM			
10.	Can a reader tell if the MATS is up to date?			
PART I: GENERAL				
11.	MATS specifies the object and scope?			
12.	MATS specifies ANSP Certification laws and regulations?			
13.	The procedures to be followed for revising the MATS			

Item	Requirement	Yes	No	Reference Pg. and Comments
14.	Use of Common Reference Systems			
15.	Definitions And Abbreviations			
16.	Acronyms			
17.	Facilities			
18.	Three letter designators and ICAO Four letter indicators			
19.	List of Aircraft Nationality Marks			
PART II: AIR NAVIGATION SERVICE				
20.	Purpose			
21.	Type of services to be provided			
	(i) a list of the air traffic services that the provider provides, or proposes to provide			
	(ii) a statement for each air traffic service, showing the hours of operation of the service			
	(iii) a statement, for each air traffic service, that identifies the particular airspace within which the service is provided, or proposed to be provided			
22.	Description of the services			
23.	Types and functions of ATS units in Mozambique			
24.	Dimensional units in connection with ATS in Mozambique			
25.	Airspace Classification			
26.	Allocation of responsibility			
27.	A statement, for each air traffic service, that identifies the location from where the service is provided, or proposed to be provided; if the provider provides, or proposes to provide, an air traffic service for a controlled aerodrome			
28.	A description of the procedures to be used in commissioning new facilities, equipment and services			
29.	A description of the procedures to be followed to ensure all operational staff are familiar with any operational changes that have been issued since they last performed operational duties			
PART III: OPERATING PROCEDURES				
30.	A description of the operating procedures for the provision of each of the air navigation services listed in Part 2/ including:			



Item	Requirement	Yes	No	Reference Pg. and Comments
31.	i) Procedures for the provision of each type of services			
32.	i) Procedure for operations of facilities, and equipment			
33.	ii) Procedures for installation/and acceptance of facilities and equipment			
34.	iii) Procedures for inspection of facilities			
35.	iv) Contingency plans for part or total system failure			
36.	v) Emergency plan, including:			
37.	i) Planning of regular exercises in relation to the emergency plan			
38.	ii) Description of the tasks in the emergency plan			
39.	iii) A procedure describing how the ANSP regularly verifies the information in the emergency plan/ including keeping an up-to-date list of the persons and contact details in the emergency plan			
40.	iv) Description of the roles and responsibilities during emergencies			
41.	v) Description of the involvement of and coordination with/ other agencies during emergencies			
42.	vi) Availability of the required minimum emergency equipment including an adequately equipped emergency operation center.			
43.	Operational safety during work or changes; when executing work on the ANSP facilities and equipment or planning changes in the system:			
44.	i) Procedure describing the necessary notification to the different stakeholders			
45.	ii) Risk assessment of the work or changes			
46.	iii) Roles and responsibilities of the various parties/ including their			
47.	iv) Safety monitoring during the work or planned changes			
48.	v) Relationship and the enforcement of safety measures			
49.	vi) Reopening of facilities/ where relevant			
50.	vii) Necessary coordination with stakeholders including aerodrome operator			
51.	Low visibility operations:			



Item	Requirement	Yes	No	Reference Pg. and Comments
52.	i) Coordination with the aerodrome operator and appropriate stakeholders/ including awareness of the status of both low visibility procedures (LVP) and the deterioration of visual aids			
53.	ii) A procedure describing the actions to be taken when LVP is in process (vehicle control/ visual range measurement if necessary)			
54.	Security measures as required in the Civil Aviation (Security) Regulations			
55.	Accident, serious incident/ and incident reporting, including:			
56.	i) Responsibilities for reporting			
57.	ii) Timelines for reporting for each type of occurrences			
58.	iii) Analysis of safety data, and safety information collected			
59.	iv) Communications with the Authority, and accident investigation agencies			
60.	General Administrative Instructions for ATCOS			
	PART IV: ORGANIZATION & MANAGEMENT			
	4.1: Particulars of the ANSP administration including:			
61.	An ANSP organizational chart showing the names and positions of key personnel, including their responsibilities - A description of the provider's organizational structure and a statement setting out the functions that the provider performs, or proposes to perform under MOZCAR Part 172			
62.	A description of the chain of command established, or proposed to be established, by the provider and a statement of the duties and responsibilities of any supervisory positions within the organizational structure			
63.	safety responsibilities			
64.	particulars of the accountable executive, safety manager, and persons responsible for operations and maintenance			
65.	4.2: A description of the arrangements for coordination with other ANSPs, third-parties, and, where applicable, supervision of sub-contractors			
66.	4.3: A description of the arrangements in place to ensure that the ANSP has adequate number, and appropriately trained personnel for the services listed, including:			



Item	Requirement	Yes	No	Reference Pg. and Comments
67.	Methodology for establishing the minimum number of personnel required for each functional area - A procedure showing how the provider determines the number of operational staff required including the number of operational supervisory staff.			
68.	Duties and responsibilities of personnel			
69.	Minimum qualifications of personnel			
70.	Working hours			
71.	Shift(s)			
72.	Fatigue management			
73.	Recruitment procedures;			
74.	Training programmer - A description of the provider's training and checking program			
75.	Procedure for training needs assessment;			
76.	Procedure for developing training plans, and tracking implementation;			
77.	Training, performance assessment and tracking of information;			
78.	Procedure for maintaining training records;			
PART V: ATS SAFETY MANAGEMENT				
79.	General			
80.	Objectives			
81.	ATS Safety management activities			
82.	Monitoring of safety levels			
83.	Safety reviews			
84.	Safety assessments			
85.	Safety-enhancing measures			
PART VI: STANDARDS FOR THE PROVISION OF AIR TRAFFIC SERVICES				
86.	6.1: AIR TRAFFIC SERVICES			
87.	Introduction			
88.	Language Requirement			



Item	Requirement	Yes	No	Reference Pg. and Comments
89.	Air Traffic Services			
90.	Objectives of Air Traffic Services			
91.	Air Traffic Control Service			
92.	Air Traffic Advisory Service			
93.	Flight Information Service			
94.	Alerting Service			
95.	Air Traffic Control Units			
96.	Safety and Expedition			
6.2. FLIGHT RULES				
97.	Division of Airspace			
98.	Classification of Airspace			
99.	Speed Limit			
100.	Visual Flight Rules			
101.	Instrument Flight Rules			
102.	Flight in VMC			
103.	Aerodrome Traffic Zone (ATZ)			
104.	Cancellation of IFR Flight			
105.	Special VFR Flight			
106.	Class C Airspace			
107.	Filing of Flight Plans			
108.	Time in air traffic service			
109.	Position Reporting Procedures			
110.	Non-Standard Routes (Flexible Routes, Operator Prefer Route)			
111.	Repetitive Flight Plan			
112.	Availability of Supplementary Flight Plan Information			
113.	Exemptions and Non-Standard Flights			



Item	Requirement	Yes	No	Reference Pg. and Comments
114.	Aircraft Proximity (AIRPROX)			
115.	Search Action			
116.	Failure of Navigation Lights			
117.	Operations of Aircraft with Unserviceable Equipment			
118.	Action When Captive Balloons Break Free			
119.	Radio Mandatory Zones			
	6.3. SEPARATION STANDARDS			
120.	Provision of Standard Separation of controlled traffic			
121.	Increased Separation			
122.	Reduced Separation			
123.	Essential Traffic Information			
124.	Vertical Separation			
125.	Horizontal Separation			
126.	Separation of aircraft holding in flight			
127.	Minimum separation between departing aircraft			
128.	Separation of departing aircraft from arriving aircraft			
129.	Clearances to fly maintaining own separation while in visual meteorological conditions			
130.	Lateral Separation			
131.	Longitudinal Separation – Time and Distance			
132.	Wake Turbulence Separation Requirements (Time-based wake turbulence longitudinal separation minima)			
133.	Reduced Vertical Separation Minima (RVSM)			
134.	Separation Based on ATS Surveillance System Information			
	6.4 SEPARATION IN THE VICINITY OF AERODROMES			
135.	Reduction in separation minima in the vicinity of aerodromes			
136.	Essential local traffic			



Item	Requirement	Yes	No	Reference Pg. and Comments
137.	Procedures for departing aircraft			
138.	Information for departing aircraft			
139.	Procedures for arriving aircraft			
140.	Information for arriving aircraft			
141.	Operations on parallel or near-parallel runways			
6.5: CONTROL OF TRAFFIC				
142.	Air Traffic Control Clearances			
143.	Contents of Clearances			
144.	Clearance Limit			
145.	Conditional Clearances			
146.	Route			
147.	Allocation of Cruising Levels			
148.	Amendments to Clearances			
149.	Withholding Clearance			
150.	Data Display			
151.	Flight Priorities			
152.	Notification of Flights			
153.	Transfer of Control			
154.	Expected Approach Time (EAT)			
155.	Calculated Take Off Time (CTOT)			
156.	Formation Procedures			
157.	Ground Proximity Warning System			
158.	Non-Deviating Status (NDS)			
159.	Unusual Aerial Activity			
160.	Balloon Flights in Controlled Airspace			
161.	Glider Operations in Controlled Airspace			

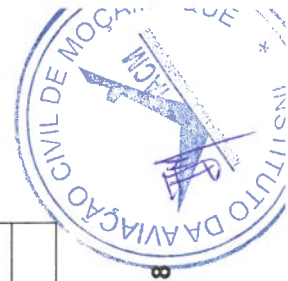
Date: 01/09/2020



Item	Requirement	Yes	No	Reference Pg. and Comments
162.	Police Flights			
163.	Helicopter Emergency Medical Service (HEMS)			
PART VI. : PROCEDURES – AIR TRAFFIC SERVICES				
6.1 : AERODROME CONTROL				
164.	Provision of Services – functions of aerodrome control towers			
165.	Responsibilities			
166.	Selection of runway-in-use			
167.	Co-ordination			
168.	Transfer of Control			
169.	Airspace Classification			
170.	Effect of Weather on Operations			
171.	Information to Aircraft			
172.	Essential Aerodrome Information			
173.	Grass Aerodromes			
174.	Control of Surface Traffic			
175.	Taxiing Aircraft			
176.	Clearance Limit			
177.	Line-Up Clearance			
178.	Take-off Clearance			
179.	Cancelling Take-off Clearance			
180.	Designated Positions in the Traffic Circuit			
181.	Arriving Aircraft			
182.	Landing			
183.	Exemptions from Separation Minima in the Traffic Circuit			
184.	Low Approach Restrictions			
185.	Landing Direction and Runway-in-use			



Item	Requirement	Yes	No	Reference Pg. and Comments
186.	Runway Changes			
187.	Closure or Restricted Operation of Aerodromes			
188.	Extensions of Watch			
189.	Availability of Aerodromes for Special Flights			
190.	Work on the Manoeuvring Area			
191.	Ground Signals and Markings			
192.	Inspection of Runways			
193.	Aerodrome Fire Service			
194.	Reduced runway separation minima between aircraft using the same runway			
	6.2 APPROACH CONTROL			
195.	Provision of Services			
196.	Information to Aircraft			
197.	Information to Other Units			
198.	Co-ordination			
199.	Transfer of Control			
200.	Delegation			
201.	Transfer of Communication			
202.	VFR Flights			
203.	Arriving Aircraft			
204.	Transmission of Meteorological Information			
205.	ATIS			
206.	Visual Approach			
207.	Instrument Approaches			
208.	Holding Procedures			
209.	Approach Sequence			



Item	Requirement	Yes	No	Reference Pg. and Comments
210.	Expected Approach Time			
211.	Holding for Weather Improvement			
212.	Diversions			
213.	Aerodromes Receiving Diversions			
214.	Departing Aircraft			
215.	Joining and Overflying Aircraft			
6.3: AREA CONTROL PROCEDURES				
216.	Principles of Operation			
217.	Co-ordination – Area Control Centres			
218.	Co-ordination – Approach Control Units			
219.	Responsibilities			
220.	Separation			
221.	Aircraft Off Track			
222.	Position Reports			
223.	Additional Services – Approach			
224.	Aircraft Crossing and Joining			
225.	Military Aircraft			
226.	Aircraft Holding			
227.	Diversion			
6.4: AIR TRAFFIC ADVISORY SERVICE				
228.	6.4.1 Flight Information Service			
229.	Introduction			
230.	Limiting Factors			
231.	Proximity warnings			
232.	Minimum Flight Level Outside Controlled Airspace			
6.5: ATS SURVEILLANCE SYSTEMS				



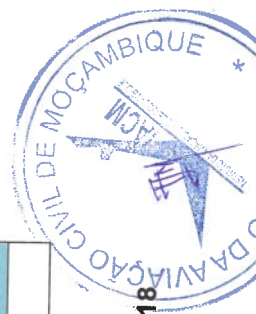
Item	Requirement	Yes	No	Reference Pg. and Comments
233.	Use of ADS-B surveillance			
234.	Operation of ADS-B transmitters			
235.	Verification of level information			
236.	Determination of level occupancy using ATS surveillance system-derived level information			
237.	Establishment of identification			
238.	Position information			
239.	Use of Speed Control			
240.	Termination of ATS surveillance services			
241.	Obstacle clearance			
242.	Vectoring special VFR			
6.6: AIRBORNE COLLISION AVOIDANCE SYSTEM (ACAS)				
243.	Introduction			
244.	Traffic Alert and Collision Avoidance System: TCAS II Warnings			
245.	Effects on ATC Operations			
246.	Nuisance Advisories			
247.	Departure from ATC Clearance			
248.	TCAS Phraseology (TCAS resolution and advisory)			
249.	Controller Reporting			
6.7: AIRCRAFT EMERGENCIES				
250.	Introduction			
251.	Controllers Responsibility			
252.	Recognising an Emergency Situation			
253.	Distress and Urgency Messages			
254.	Indications by Visual Signal from Aircraft			
255.	Indications on the Situation Display			
256.	Emergency Triangle Procedure			



Item	Requirement	Yes	No	Reference Pg. and Comments
257.	Emergency Aircraft – Selection of Controlling Agency			
258.	Distress and Diversion Cell			
259.	Intercepted Messages			
260.	Aircraft Emergencies – General Principles			
261.	Fuel Jettisoning			
262.	Emergency Overweight Landings			
263.	Facilitation			
PART VII: FLIGHT INFORMATION SERVICE AND ALERTING SERVICE				
264.	Flight information service			
265.	Alerting service			
PART VIII : AIRCRAFT ACCIDENT, INCIDENT AND AIRPROX REPORTS				
266.	Explanation of Terms			
267.	Reporting Action			
268.	Reporting Action at Aerodromes			
269.	Reporting Action at ACCs			
270.	Accident Reports			
271.	1. Telephone			
272.	2. Written Reports			
273.	Serious Incident Reports			
274.	1. Telephone			
275.	AIRPROX Reports			
276.	1. Search Action			
277.	Mandatory Occurrence Reports (MOR)			
278.	1. Reporting Procedure			
279.	Incidents on Board an Aircraft in Flight			
280.	Matter Allegedly Dropped by Aircraft			

Date: 01/09/2020

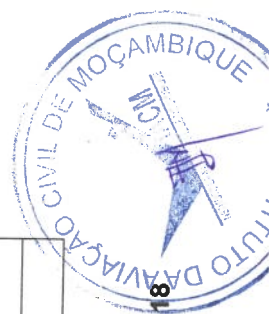




Item	Requirement	Yes	No	Reference Pg. and Comments
PART IX : MISCELLANEOUS REPORTS				
281.	Bird Strikes			
282.	Maritime Incidents			
283.	Unidentified Flying Objects			
284.	Sonic Boom			
285.	Malicious Interference to VHF Communications			
PART X: METEOROLOGICAL SERVICES				
286.	Briefing of Controllers			
287.	Explanation of Terms			
288.	Supply of Information			
289.	Aerodrome Meteorological Reports (Routine)			
290.	Aerodrome Meteorological Reports (Special)			
291.	Coded Aerodrome Weather Reports			
292.	SIGMET			
293.	Forecasts			
294.	Aerodrome Warnings			
295.	Provision and Exchange of Information Relevant to Volcanic Ash			
XI - TELECOMMUNICATIONS SERVICES				
296.	The Aeronautical Mobile Service			
297.	Air-Ground Communications and Surveillance Systems			
298.	Aeronautical Fixed Service			
299.	Serviceability of Equipment			
300.	Aircraft Radio Equipment Fault Reports			
301.	Withdrawal of Approach Aids			
XII - AERONAUTICAL INFORMATION SERVICE				
302.	Introduction			
303.				

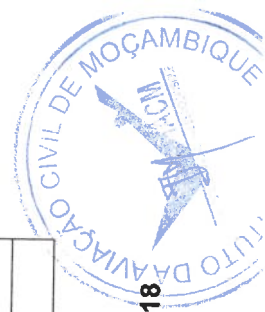
Item	Requirement	Yes	No	Reference Pg. and Comments
304.	AIS Office			
305.	Amending the Aeronautical Information Publication			
306.	Sponsors of Amendments to the AIP (AIRAC and Non-AIRAC)			
307.	Mozambique AIP Amendment Service/Supplements to the AIP and AICs			
308.	Telephone Information Line			
309.	NOTAM (Notices to Airmen)			
	PART XIII: COORDINATION			
310.	Coordination in respect of the provision of air traffic control service			
311.	Coordination in respect of the provision of flight information service and alerting service			
312.	Coordination in respect of the provision of air traffic advisory service			
313.	Coordination between air traffic services units and aeronautical telecommunication stations			
314.	Coordination between military authorities and air traffic services			
315.	Coordination between meteorological and air traffic services			
	PART XIV: AIR TRAFFIC SERVICES MESSAGES			
316.	Categories of messages			
317.	General provisions			
318.	Methods of message exchange			
319.	Message types and their application			
	PART XV: PHRASEOLOGIES			
320.	Communications procedures			
321.	General			
322.	ATC phraseologies			
323.	ATS surveillance service phraseologies			
324.	Automatic dependent surveillance —Phraseologies			
325.	Alerting phraseologies			
326.	Ground crew/flight crew phraseologies			

Date: 01/09/2020



Item	Requirement	Yes	No	Reference Pg. and Comments
PART XVI: PROCEDURES RELATED TO EMERGENCIES, COMMUNICATION FAILURE AND CONTINGENCIES				
327.	Emergency procedures			
328.	Special procedures for in-flight contingencies in oceanic airspace			
329.	Air-ground communications failure			
330.	Assistance to VFR flights			
331.	Other in-flight contingencies			
332.	ATC contingencies			
333.	Other ATC contingency procedures			
334.	Procedures for ATS units when a volcanic ash cloud is reported or forecast			
PART XVII: CONTROL ROOM ADMINISTRATION				
335.	Watch keeping Rosters			
336.	Regulation of Controllers' Hours			
337.	Taking-Over Watch			
338.	Handing-Over Watch			
339.	Handing-Over an Operational Position			
340.	Combined Operational Positions			
341.	Visitors			
342.	Clocks			
343.	Publications			
344.	ATC Watch Log			
345.	Aircraft Movement Log			
346.	Impounding of ATC Watch Logs			
347.	Disposal of Records			
PART XVIII - APPENDICES				
348.	APPENDIX 1. Flight plan			
349.	APPENDIX 2. Air traffic services messages			

Date: 01/09/2020



Item	Requirement	Yes	No	Reference Pg. and Comments
350.	APPENDIX 3. Air traffic incident report			
351.	P APPENDIX 4. Pressure Setting Tables			
352.	APPENDIX 5. Communications Technique and Standard Phraseology			
353.	APPENDIX 6. Speed Control Guidance			
354.	APPENDIX 7. Tailwind and Crosswind Component Table			

This completed Compliance Checklist ofManual of Air Traffic Services has been developed and approved by:			
ANSP ACCOUNTABLE OFFICER			
ANSP	FULL NAME IN BLOCK LETTERS	DATE	AMENDMENT NUMBER

Approved by:			
 SIGNATURE OF DIRECTOR OF AIR NAVIGATION			01
		FULL NAME IN BLOCK LETTERS	DATE: 01/09/2020

Date: 01/09/2020