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APPROVAL PAGE

This Manpower Requirements for Air Navigation Regulation has been prepared by Air Navigation Regulation Directorate to assist the effort of the Ethiopian Civil Aviation Authority to maintain the provision of effective Air Navigation Services with in Ethiopia airspace.

It is important to note that the Manpower Requirements for Air Navigation Regulation Directorate improves the safety of Air Navigation Services in Ethiopia.

The Director General of Ethiopian Civil Aviation Authority has here by approved the Manpower Requirements for Air Navigation Regulation on June, 2016 to be used as guidance to Air Navigation Regulation Directorate.

Approved by
 Wosenyetch Hunegnaw (Col.)
 Date June, 2016 Director General



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Record of Amendments		
No	Date	Description
1	June 2016	New QMS Numbering

1. INTRODUCTION

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This procedure for determining *staffing* needs is intended to serve Safety Oversight as a common reference in area of Aviation Regulation Inspectors to analyze and determine the need of *manpower* requirement. Safety Oversight of Air Navigation Services is an obligation of each contracting State as signatory to the Convention on International Civil Aviation (Chicago Convention) signed at Chicago on 7th December 1944. Ethiopian Civil Aviation Authority, being responsible for the regulation and control of aviation activities in Ethiopia is therefore responsible to perform the aviation oversight functions.

Air Navigation Regulation Directorate was established on 2007 after the approval of the Director General of Ethiopian Civil Aviation Authority in order to regulate and conduct continuous oversight of Air Navigation Service Providers /Air Traffic Services, Aeronautical Search and Rescue Services, Aeronautical Information Service & COM-OPS, Communication Navigation and Surveillance, Aeronautical Meteorology Service and PANS OPS / in the country.

The preparation of specific operating regulations, development of safety oversight mechanism, determination of requirements for technical personnel qualification and training, provision of technical guidance and safety critical information to service providers, conduct of surveillance of air navigation service providers and resolution of safety concerns will be the responsibility of Air Navigation Regulation Directorate.

- ❖ The Air Navigation Regulation Directorate auditors/inspectors appointed must satisfy minimum qualification and experience requirements as established from time to time by the Authority.
- ❖ They must have extensive knowledge of National Legislation, Rules, Regulations, directives and the regulatory responsibilities of the Civil Aviation Authority and
- ❖ Have experience with relevant branches of the aviation industry at a middle or senior management level, as an inspector or supervisor;

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In the determination of the demand and capacity of the inspectors in the Air Navigation Regulation Directorate; manpower has been reviewed by the Director General of Ethiopian Civil Aviation Authority in accordance with the authority vested in him by Civil Aviation Authority re-establishment proclamation 616/2008.

2. OBJECTIVES

- ❖ To indicate the assessment of the Air Navigation Regulation Directorate system and capacity aligned with users demands so as to propose a viable manpower structure and future requirement.
- ❖ The purpose of this procedure is to indicate the required manpower for Air Navigation Regulation Directorate inspectors in each discipline for the safe, economical and expeditious air transport with in Ethiopia airspace.

3. AREA OF RESPONSIBILITY

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- ❖ The Air Navigation Regulation Directorate inspectors' are responsible for Safety oversight audit/inspection the whole Ethiopian airports (International and Domestic) where air navigation services and equipments are available.

4. Adequacy:

The manpower requirement for a particular ANSP unit shall be dependent on the following factors:-

- ❖ The volume of operations
- ❖ The extent to which civil aviation facilities are provided
- ❖ The amount of information to be processed
- ❖ Hours of service/watch
- ❖ The level of automation of the systems

5. Benefits

The main benefits of this guideline on Inspector manpower are that it:-

- ❖ Improves understanding of the manpower processes and components which leads to enhanced quality in the prediction, assignment and use of staff;
- ❖ Provides transparency on the elements of manpower, which should enable manpower to benchmark their current practices and identify areas for improvement;

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- ❖ Provides a standardized format for understanding and communicating the manpower process between manpower participants both within air navigation regulation operation;
- ❖ Provides a valuable training tool which can be used by training institutes in teaching the principles of manpower.
- ❖ Air Navigation inspectors should be scheduled for training on audit/inspection technique in the foreign countries before assigned as an inspector.
- ❖ Air Navigation inspectors should be scheduled for standardized Familiarization visit on audit/inspection in foreign country to share experience on regulatory functions.
- ❖ Recurrent / Refresher Training will be provided to the inspectors as per the ICAO provisions to maintain their efficiency up to the standard.
- ❖ Air Navigation inspectors should be scheduled for one recurrent / refresher training every five years.

6. MAJOR DUTY AND RESPONSIBILITY

- ❖ To develop required Operating Regulations and Implementing Standards where necessary, for the Basic Aviation Legislation and for amending the existing Regulations as may be necessary to maintain required safety, efficiency and regularity in Air navigation services in Ethiopia.
- ❖ Air navigation regulation Inspectors are responsible for carrying out regulatory functions in Air navigation services.
- ❖ To ensure relevant SARPs contained in ICAO Annexes in the Air navigation services are implemented in Air navigation services and updated as necessary.

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- ❖ To develop and implement a systematic Annual Surveillance Plan in Air navigation services Provider to achieve Acceptable Level of Safety.
- ❖ To maintain complete, accurate and updated records and database in respect of Air navigation services providers.
- ❖ Air navigation regulation Inspectors are responsible for carrying out regulatory functions in Air navigation services.
- ❖ Check and approved the training program prepared for all Air navigation services provider.
- ❖ Prepare the corrective action plan along with timelines with rational in consultation with the Service Providers and monitor its implementation to remove the discrepancies/deficiencies;
- ❖ Prepare the final safety oversight audit/inspection report, submit to the authority and subsequently disseminate to the ANS Service Provider;
- ❖ Assist the Air navigation services provider in resolution of safety concerns/issues;
- ❖ Safety oversight audits/inspections will be conducted by appropriately trained and qualified auditors in accordance with widely recognized auditing/inspections principles and practices.
- ❖ Observe and assess the Service Provider's adherence to Civil Aviation proclamation No. 616/2008, Regulations, Directives and other related documents;
- ❖ Determine the degree of conformance by the Service Providers in implementing Regulations, Prescribed Standards and procedures, Operating Manuals, Directives and other related documents
- ❖ Determine the effectiveness of the Safety Oversight System of Air Navigation Services and submit proposals to improve their safety oversight capabilities.

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7. MINIMUM QUALIFICATIONS AND EXPERIENCE

7.1 basic requirements

BA Degree

Or

Diploma

7.2 Certificate in each assigned position

7.3 At least two years experience in supervisor level

7.4 Training Requirements

❖ *Basic training*

Aviation course in the assigned position

❖ *Specialized training*

Certified in internal auditor course

❖ *On-the-Job Training*

The Air Navigation Regulation Directorate inspector shall ensure that OJT programmes are conducted before any individual can be approved to carry out specified duties. The Air Navigation Regulation Directorate inspector shall engage qualified OJT instructors to carry out specialized training.

8. INSPECTORATE POSITION TO BE MANNED

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- ❖ Air Traffic Services
- ❖ Aeronautical Search and Rescue Services
- ❖ Aeronautical Information Service
- ❖ COM-OPS
- ❖ Communication Navigation and Surveillance
- ❖ Aeronautical Meteorology Service and
- ❖ PANS OPS and cartography

9. AIRPORTS INSPECTION CARRY OUT

No.	Airports	Regular Inspection/ year	Follow up inspection/ year	Spot check	Safety oversight audit/ year	Remark
1.	ADDIS ABABA BOLE INTERNATIONAL AIRPORT	4	2 times / month	When it is necessary	1	
2.	BAIRDAR GINBOT 20 INTERNATIONAL AIRPORT	1	1	-	-	

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3.	DIRE DAWA DEJAZMACH YILMA ABATENA INTERNATIONAL AIRPORT	1	1	-	-	
4.	MEKELE ALULA ABANEGA INTERNATIONAL AIRPORT	1	1	-	-	
5.	ARBAMINCH AIRPORT	1	-	-	-	
6.	AXUM AIRPORT	1	-	-	-	
7.	GAMBELA AIRPORT	1	-	-	-	
8.	GODE AIRPORT	1	-	-	-	
9.	GONDER AIRPORT	1	-	-	-	
10.	JIMA AIRPORT	1	-	-	-	
11.	LALIBELA AIRPORT	1	-	-	-	

***Note** if required or believed by inspectorate audit, inspection or/and follow-up inspection will conduct more
Than the indicated period after granted by the director of the directorate.*

10. CONCLUSION

Due to shortage of inspectors in each air navigation fields and to mitigate the findings found by ICAO in 2006 audit the Air Navigation Regulation Directorate is established by Ethiopian Civil Aviation Authority to attain maximum level of safety. The

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Business Process Re-engineering /BPR/ study which was conducted on the Ethiopian civil aviation Authority and approved by Central Personal Agency/CPA/ granted the establishment of the directorate with the allocation of the following manpower, Unless otherwise conduct revision by the Director General of the Authority the following manpower allocation is put in to practice.

No.	Inspectorate position	Permitted manpower	Available manpower	Remark
1.	Air Navigation Regulation Director	1	1	
2.	Air traffic Services and Search and Rescue Services	1	1	
3.	Aeronautical Information Service	1	1	
4.	Aeronautical Communication Operation	1	1	
5.	Aeronautical Communication Navigation and Surveillance	1	1	
6.	Communication Navigation and Surveillance(Navigational Aids)	1	-	
7.	Aeronautical Meteorology Service	1	1	
8.	Pans- Ops and Cartography	1	1	

Note:-Manpower staffing need not be limited to explaining the current situation, or work that is currently expected; it may also set out goals for what might be achieved in the future

11. DETERMINNING STAFF NEEDS FOR SAFETY OVERSIGHT

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1. Objectives

Staffing standards denote the concept of total number of personnel to fill specified task/job without regard for quality or skill levels. It refers to the numbers of personnel of various job categories deemed appropriate to staff its facilities. Staffing standard is all about determining and providing the number of personnel in various categories that an organization needs to accomplish its goals.

2. Setting staffing standards

Mechanism to prove the allocation of sufficient number of safety inspectors in the Directorate

1. Determine Net working days per year

$$365 - (\text{National holidays} + \text{wee ends} + \text{Annual leave} + \text{Sick leave} + \text{Training sessions})$$

2. Determine annual effective (available) working hours of safety oversight inspectors:

$$\text{Net working days} - (\text{National holidays} + \text{weekends} + \text{Annual leave} + \text{Sick leave} + \text{Training sessions}) \times 6 \text{ hours/a day}$$

$$= \text{Total Effective Annual inspection time available per inspector}$$

3. List down all activities and tasks that are required /planned to be performed by each Inspector Category; repeatedly measure and calculate the average time to finish a single planned or required activity.

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<i>No</i>	<i>Tasks</i>	<i>Average time spent</i>
<i>1</i>	<i>Preparation for inspection</i>	<i>20hrs</i>
<i>2</i>	<i>Preparation for audit</i>	<i>60hrs</i>
<i>3</i>	<i>Document approval</i>	<i>20hrs</i>
<i>4</i>	<i>Inspection activity</i>	<i>12hrs</i>
<i>5</i>	<i>Audit activity</i>	<i>20hrs</i>
<i>6</i>	<i>Preparation of finding</i>	<i>12hrs</i>
<i>7</i>	<i>Corrective action plan review</i>	<i>6hrs</i>
<i>8</i>	<i>Certification process</i>	<i>50hrs</i>
<i>Total time spent(hours)</i>		<i>200hrs</i>

4. Determine the average (standard) man-hour (m/h) required to perform total volume of required/planned activities per year under each directorate or supervisor:

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Number of Planned/required inspection activities by type of activity/per year X average man-hour required to perform a single unit of activity

- Calculate the required number of hours to effectively carryout the planned/required aviation safety inspection activities and compare with the available effective inspection time

(#3 X# 4) ≈ (#2 X No. of inspectors by category)

$$200 \times 6 = 1200 \times 1$$