



**Instructions for Use:**

1. Check **C** column if you determine the document or individual item conforms.
2. Check **N/C** column if you determine that the document or individual line item does not comply (put a marker tab in the manual with a short note opposite the non-complying item).
3. Check **N/Ckd** if the item was not checked. Reasons should be given in remarks column.
4. Check **N/A** column if it is not applicable or you do not have adequate information to make a valid comment.
5. Coordination is required between FOPS and AIR inspectors as necessary. The FOI and other appropriate inspector shall sign on the last column after reviewing the relevant items.
6. Use the remarks column at the end for overall remarks or observations. For detailed findings inspectors may also use the FSS-GEN-FORM 39: Audit Inspection Report Form. Attach to this checklist
7. Refer to the relevant chapter in TGM Vol 4 Part 2 for detailed inspector procedures

<b>APPROVAL OF OPERATOR'S MASS AND BALANCE CONTROL PROGRAMME</b>			
<b>FSS-OPS-FORM 004</b>			
Operator File Reference	Inspector's Names	Date Programme Submitted	Date/s of Evaluation
Name of Operator/Applicant	Title of Submitted Document(s)	Contact Person and Phone No.	

S/N	Coordinate with the Operator/Applicant	Assessment
1.	<b>Are the following submitted for review</b>	
(a)	Manual or revision?	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(b)	Mass and balance programme document (if not part of a manual)?	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(c)	Pertinent company procedures?	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(d)	Instructions for completing forms used in aircraft mass control and aircraft loading?	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(e)	Calculations to justification loading provisions or schedules?	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>

(f)	If the operator wishes to use an onboard mass and balance computer system as a primary source for dispatch, has he submitted this system for approval by the Authority?	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
2.	<b>The manual includes the following</b>	
(a)	Procedures?	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(b)	Level of authority?	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(c)	Information appropriate to Namibia Civil Aviation Regulations?	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
	<b>Note:</b> if an initial cursory review of the Manual/programme document shows that items at 1 and 2 above are not included, or are seriously deficient, it would be prudent to meet with the operator/applicant to further guide him on the requirements.	
3.	<b>The manual contains an introduction including the following</b>	
(a)	Description of the philosophy and the goals of the manual	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(b)	Description of the division of contents between volumes if more than one volume	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(c)	List of effective pages and date	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
4.	<b>There manual revision and distribution procedures, to ensure</b>	
(a)	Current information is provided to manual holders	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(b)	Manuals are available to maintenance, operations and ground personnel and are furnished	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
5.	There is a definition section of all significant terms used in the programme	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
6.	Any acronyms or abbreviations unique to the manuals are included	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
7.	There is a description of the organizational unit responsible for the control and maintenance of the mass and balance programme	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
8.	<b>A description of the organizational unit include:</b>	
(a)	Description of lines of authority	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(b)	Description of the support structure	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
9.	<b>The manual includes:</b>	
(a)	Job descriptions for all elements	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(b)	Training programmes that include training for the following:	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(i)	Operations and dispatch personnel	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ii)	Maintenance personnel	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iii)	Ground handling personnel	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>

(c)	A means of documenting and retaining individual training records.	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(d)	<b>Procedures for:</b>	
(i)	Determining standards and schedules for calibration of scales	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ii)	Pre-weighting instructions and requirements	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iii)	Determining which aircraft are to be weighed	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iv)	Establishing and maintaining equipment list for each aircraft	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(v)	Recording the type and serial number for each scale used, aircraft mass, residual fluids and scale tare mass	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(vi)	Initial weighing of aircraft	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(vii)	Monitoring and adjusting individual aircraft or fleet, empty mass and CG	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(viii)	Periodic re-weighing of aircraft	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ix)	Ensuring aircraft are configured in accordance with approved data	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(e)	A loading schedule consisting of graphs/tables or a special loading schedule for a calculator or computerized programme	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
	Note: the loading schedule should be designed to ensure that pertinent data is available concerning all problem mass and balance conditions of the aircraft	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(f)	<b>Instruction that the mass and balance documentation shall contain the following:</b>	
(i)	The aircraft registration and type	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ii)	Flight identification Number and date	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iii)	Identity of pilot-in-command	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iv)	Identify the person who prepared the document	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(v)	The dry operating mass and the corresponding center of gravity	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(vi)	The mass of the fuel at takeoff and the mass of trip fuel	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(vii)	The mass of consumables other than fuel.	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(viii)	The component of the load including passengers, baggage, freight and ballast	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ix)	The takeoff mass, landing mass and zero fuel mass	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(x)	The load distribution	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(xi)	The applicable aircraft under center of gravity positions	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>

(xii)	The limiting mass and center of gravity values	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(g)	The maximum allowable change in the number of passengers or hold acceptable as a last minute change (LMC)	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
<b>(h)</b>	<b>The LMC procedure must include the following:</b>	
(i)	Informing the PIC	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ii)	Entering the LMC on the mass and balance documentation	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iii)	Instructions that if the maximum allowable LMC is exceeded, new mass and balance documentation must be prepared	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
<b>(i)</b>	<b>Procedure for-</b>	
(i)	Completing load manifest	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ii)	Ensuring that the load manifest is carried on the aircraft	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iii)	Retaining the load manifest for the time periods specified in part 9 of the Nam-Cars	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iv)	Distribution of the load manifest in accordance with	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(j)	Procedures to be used by crewmembers, cargo handlers, and other personnel concerned with aircraft loading, for the following:	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(i)	Distribution of passengers	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ii)	Distribution of fuel	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iii)	Distribution of cargo	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iv)	Verification and acceptance of actual cargo mass as listed on a bill of lading	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(v)	Restriction of passenger movement during flight, if applicable.	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(vi)	Dangerous goods requirements, if applicable	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(j)	A drawing of each cargo and/or passenger configuration to include emergency equipment locations.	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
<b>(k)</b>	<b>Mathematical justification for loading provisions or schedules</b>	
	<b>Note:</b> this may be included under separate cover and not part of the company	
(l)	An alternate procedure for allowing manual computations, if a computerized mass and balance programme is utilized.	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(i)	The range is typical of passengers carried on similar operations	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ii)	Computations for critical load considerations support ranges	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>

(iii)	Personnel responsible for loading the aircraft are required to prepare appropriate loading records	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(iv)	The system includes methods for loading passengers whose mass are outside the range	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(v)	Loading records indicates the number of passengers within the range	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(m)	<b>Procedures to verify actual mass of cargo</b>	
(n)	Standards and schedules for calibration of commercial scales used to determine baggage/cargo mass	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(o)	Procedures to ensure that:	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(i)	Carry-on baggage is limited to articles which may place in overhead compartments or under seats	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ii)	Carry-on baggage mass is accounted for in the same manner as check baggage or added to the average passenger mass	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
10.	<b>If mass and balance documentation is generated by a computerize mass and balance system the manual must have procedures for:</b>	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(a)	Verifying the integrity of the output data	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(b)	Procedure for checking that amendment to the input data are incorporated properly in the system	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(c)	Procedures for verifying the output data at intervals not exceeding six months to ensure that the system is operating correctly on a continuous basis.	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
11.	<b>Evaluate that the Operator documented procedures include the following:</b>	
(a)	Aircraft make/model/series	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(b)	Type of loading schedules	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(c)	Loading schedules instruction for-	
(i)	Passengers and crew (average or actual mass)	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(ii)	Baggage (average or actual mass) and cargo (actual)	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
(d)	Mass and balance control procedures	N/A <input type="checkbox"/> C <input type="checkbox"/> N/C <input type="checkbox"/> N/Ckd <input type="checkbox"/>
	Note: the above must be reference by indicating the locations in the operator/applicant manual; e.g. volume chapter	

**PEL INSPECTOR COMMENTS (IF APPLICABLE):**

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**AIR INSPECTOR NAME** .....

**SIGNATURE, STAMP & DATE:** .....

**OPS INSPECTOR COMMENTS:**

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**TRAINING PROGRAMME APPROVAL**  
**APPROVED**

**APPROVED**  **NOT**

**OPS INSPECTOR NAME:** .....

**SIGNATURE, DATE AND STAMP:** .....