
	<b>TANZANIA CIVIL AVIATION AUTHORITY</b> <b>SAFETY REGULATION</b>	Revision: 1
<b>Document No.</b> <b>TCAA/FRM/SR/AGA-03</b>	<b>CHECKLIST FOR MAINTENANCE OF</b> <b>AERODROME PAVEMENTS</b>	Page 1 of 7

<b>AERODROME NAME:</b>	<b>ICAO REFERENCE CODE:</b>
<b>AERODROME INSPECTOR:</b>	<b>DATE:</b>


S/N	ICAO Annex 14 Ref	Items	Assessment				
			S	NS	N/C	N/A	Comments
	<b>A</b>	<b>MAINTENANCE PROGRAMME</b>					
1	10.1.1	Check for established maintenance programme including preventive maintenance at an aerodrome to maintain facilities in a condition which does not impair the safety, regularity or efficiency of air navigation.					
	<b>B</b>	<b>PAVEMENTS</b>					
2	3.1.23	Check to establish whether the construction and resurfacing of paved runway has provided surface friction characteristics at or above the minimum friction level set by the Authority.					
3	10.2.1	Check for regular Inspection and monitoring of the surfaces of all movement areas including pavements (runways, taxiways and aprons) and adjacent areas as part of an aerodrome preventive and corrective maintenance programme					
4	10.2.2	Check for maintenance of the surface of a runway in a condition such as to prevent formation of harmful irregularities					
5	10.2.3	Check for maintenance of a paved runway in a condition so as to provide surface friction characteristics at or above the minimum friction level specified by the State.					
6	10.2.4	Check for periodical measurement					

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			S	NS	N/C	N/A	Comments
		of runway surface friction characteristics for maintenance purposes using a continuous friction measuring device using self-wetting features and documented.					
7	10.2.4	Check the frequency of these measurements to determine the trend of the surface friction characteristics of the runway					
8	10.2.5	Check whether the corrective maintenance action has been taken to prevent or restore the runway surface friction characteristics for either the entire runway or a portion thereof from falling below a minimum friction level specified by the State					
	<b>C</b>	<b>RIGID CONCRETE PAVEMENTS</b>					
10	10.1	Check on the availability of procedures for maintenance of porous or disintegrated surfaces					
11	10.1	Check on maintenance of porous of disintegrated portions of the pavement carried out effectively					
12	10.1	Check on the availability of procedures for maintenance of damage with deep cracks					
13	10.1	Check on maintenance of damage with deep cracks carried out effectively					
14	10.1	Check on the availability of procedures for provisional surface repair					
15	10.1	Check on the availability of procedures for repair of joints in the concrete pavement					
16	10.1	Check on maintenance of joints carried out effectively					

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17	10.1	Check on the availability of procedures for repair of cracks in the concrete pavements					
18	10.1	Check on maintenance of cracks in concrete pavements was satisfactorily carried out					
	<b>D</b>	<b>RUNWAY PAVEMENT OVERLAYS</b>					
19	10.4.1	Check on measurement of longitudinal slope of the temporary ramp, conducted with reference to the existing runway surface or previous overlay course, shall be: a) 0.5 to 1.0 per cent for overlays up to and including 5 cm in thickness; and b) not more than 0.5 per cent for overlays more than 5 cm in thickness.					
20	10.4.4	Check whether before a runway being overlaid is returned to a temporary operational status, a runway centre line marking conforming to the specifications. Also, check if the location of any temporary threshold can be identified by a 3.6 m wide transverse stripe.					
21	10.1	Check if maintenance of minor damage carried out effectively					
22	10.1	Check availability of records of maintenance work carried out on concrete pavements					
	<b>E</b>	<b>BITUMINOUS (ASPHALT CONCRETE) PAVEMENTS</b>					
23	10.1	Check availability of procedures for repair of cracks in bituminous pavements					
24	10.1	Check maintenance of cracks in bituminous pavements effectively carried out					

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25	10.1	Check availability of procedures for repair of edges of bituminous surfaces					
26	10.1	Check maintenance of damaged edges effectively carried out					
27	10.1	Check availability of records of all the maintenance work carried out on bituminous surface pavements					
		<b><i>Runway surface characteristic</i></b>					
28	ATT A	Check availability of procedures for improving runway microtexture where it is below prescribed standards					
29	ATT A	Check whether maintenance of runway by grooving of surface is satisfactorily carried out					
30	ATT A	Check whether maintenance of runway by scoring or milling the surface satisfactorily carried out					
		<b><i>Sweeping and removal of Foreign Object Debris</i></b>					
31	10.2.1	Check for frequency of visual checks of runways and taxiways for foreign object debris (FODs)					
32	10.2.1 (note 3)	Check for frequency for sweeping all paved surfaces of the movement area					
33	10.2.1 (note 3)	Check on the availability of sweeping equipment					
34		Check on availability of local training programmes for personnel working on the movement areas including apron, runway and taxiways					
	<b>F</b>	<b>CLEANING OF CONTAMINANTS AND /OR RUBBER REMOVAL</b>					
35	ATT A	Check to ensure removal of accumulation of standing water, mud, dust, sand, oil, rubber deposits and other contaminants from the surface of runways in use					


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		as rapidly and completely as possible					
36	ATT A	Check to ensure that toxic chemicals which may have harmful effects on aircraft or pavements or on the aerodrome environment are not used in any pavement maintenance process.					
37	ATT A	Check on the availability of procedures for the removal of rubber deposits by – (1) chemical method, (2) mechanical grinding method, (3) high pressure water blast method					
38	ATT A	Check on the availability of records to show the removal of rubber deposits, fuel and oil spillages					
	<b>G</b>	<b>REPORTING OF WATER ON RUNWAYS</b>					
39	2.9.6	Check if information that a runway or portion thereof may be slippery when wet is made available ( <i>such as DAMP, WET and STANDING WATER</i> )					
40	2.9.7	Check availability of notification to aerodrome users when the friction level of a paved runway or portion thereof is less than that specified by the Authority (ref question 5 above)					


**INSPECTORS COMMENTS**

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<p>.....</p> <p>Inspector's Name                      Signature.....Date.....</p>		
<ul style="list-style-type: none"> <li>• <i>The information supplied is certified as correct and a true reflection of the level of maintenance carried out at the aerodrome</i></li> <li>• <i>The inspection shall be carried out with experienced and accredited Inspector with specialization in pavements</i></li> </ul>		

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**Table 1: ICAO list of CFME and their recommended target friction levels (extract from Annex 14- Volume 1 – Attachment A)**

Test Equipment	Test Tyre		Test speed km/hr	Test water depth (mm)	Design objective for new surface (DONS)	Maintenance planning level (MPL)	Minimum friction level (MFL)
	Type	Pressure (kPa)					
Mu-meter trailer	A	70	65	1.00	0.72	0.52	0.42
	A	70	95	1.00	0.66	0.38	0.26
Skiddometer Trailer	B	210	65	1.00	0.82	0.60	0.50
	B	210	95	1.00	0.74	0.47	0.34
Surface Friction	B	210	65	1.00	0.82	0.60	0.50
Tester Vehicle	B	210	95	1.00	0.74	0.47	0.34
Runway Friction	B	210	65	1.00	0.82	0.60	0.50
Tester Vehicle	B	210	95	1.00	0.74	0.54	0.41
TATRA Friction	B	210	65	1.00	0.76	0.57	0.48
Tester Vehicle	B	210	95	1.00	0.67	0.52	0.42
Griptester	C	140	65	1.00	0.74	0.53	0.43
Trailer	C	140	95	1.00	0.64	0.36	0.24

*Note: List of CFME is progressively updated by ICAO to account for new and emerging technologies and out-of-manufacture devices. TCAA adapts and ratifies to new and ICAO updated list of equipment and friction assessment techniques as an obligation for continuous compliance with ICAO SARPs.*

**Table 2: Recommended Friction Survey Frequency (extract from Annex 14 – Volume 1 – Attachment A)**

Daily turbo-jet aircraft arrivals for runway end	Annual aircraft weight for runway end (million kg)	Minimum Friction Survey Frequency
Less than 15	Less than 447	Once per year
16 to 30	448 to 838	Once every 6 month
31 to 90	839 to 2404	Once every 3 months
91 to 150	2405 to 3969	Once every month
151 to 210	3970 to 5535	Once every 2 months
Greater than 210	Greater than 5535	Once every week