

AD 1.2 Rescue and fire fighting services and snow plan

AD 1.2 Противпожрни и служби за спасување и план за чистење на снегот

1.2.1 Rescue and fire fighting services

Rescue and fire fighting vehicles, equipment and personnel are provided at aerodromes as specified in AD 2. The scale of protection available has been determined in terms of aerodrome category in accordance with ICAO Annex 14 and related Manual. Each rescue and fire fighting service is organised by the TAV Macedonia DOOEL and is provided during notified airport operational hours.

1.2.1 Противпожарни и служби за спасување

1.2.2 Snow plan

1.2.2.1 During the winter period when snowfall or icing conditions are forecast, or when such situations exist, the aerodrome snow removal service at the aerodromes listed in item 1.2.2.2 below will conduct the following duties:

- a. Surveillance of the manoeuvring areas and apron, with a view to note the presence of ice, snow or slush.
- b. Measurement of the friction coefficient or estimate of the braking action when ice, snow, and/or slush are present on more than 10% of the total area of the runway, and as far as possible the taxiways and apron.
- c. Implementation of measures to maintain the usability of the runway etc.
- d. Reporting, concerning the conditions mentioned in items a) to c) above

1.2.2 План за чистење на снегот

1.2.2.1

- a.
- b.
- c.
- d.

1.2.2.2 Winter service is established at the aerodromes Ohrid, and Skopje.

1.2.2.2

1.2.2.3 The aerodrome snow clearance service regularly monitors meteorological reports and forecasts, and conducts inspections of the runway and other movement areas. For Ohrid AD, the first daily inspection will be available 2 hours before aerodrome opening.

1.2.2.3

1.2.2.4 The depth of a layer of snow or slush is measured by a measuring rod. Measurements will be taken at a sufficient number of places to ensure that a representative mean value may be calculated. On the runway the mean value will be calculated for each third of the runway.

1.2.2.4

1.2.2.5 For ice and compacted snow which cannot be removed with mechanical equipment, in order to prevent a build up of ice and snow, chemicals will be used.

1.2.2.5

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1.2.2.6 Information on braking action promulgated in accordance with this SNOWPLAN, is in terms of friction coefficient. When assessing the situation for stopping or manoeuvring an aircraft, it is of the utmost importance to understand, that these friction coefficients are those pertaining to a measuring device, and therefore are objective parameters valid for that specific device only. From experiments, it is known that the measuring device results obtained by simultaneous testing on the same surface with different measuring devices may not be the same, and in certain cases can deviate considerably.

It is well established that none of the measuring methods so far developed have proved the ability to provide information that can be used with confidence under all circumstances as guidance for the prediction of aircraft behavior in respect to stopping and manoeuvring performance. In this respect, the shortcomings of the measured friction value are particularly pronounced in situations where slipperiness is a consequence of the lubrication action of slush, wet snow or water between tyres and surface. Under such circumstances, and also when ice or compacted snow is present at surface temperatures near freezing point, it is strongly advised to plan and prepare for the possibility that stopping and steering qualities may be greater than what may be expected when evaluating the measured friction numbers in isolation.

1.2.2.7 The following methods of measurement of friction coefficient will apply:

- a. Continuous method, whereby the friction coefficient is recorded continuously by means of special devices constructed for this purpose; SAAB friction tester (SFT) and skidometer (SKH or SKL)
- b. Retardation measurements with the use of an instrument that only indicates the peak value of the retardation reached during each braking; Tapley-meter (TAP)

Measurements are taken on each side of the runway centre line at a distance of approximately 3 m, and in such a manner as to produce mean values for each third of the length available. The thirds are called A, B and C. For the purpose of reporting information to aeronautical service units, section A is always the section associated with the lower runway designator number. When giving landing information to a pilot before landing, the sections are however referred to as first, second and third part of the runway. The first part always means the first third of the runway as seen in the direction of landing.

1.2.2.6**1.2.2.7**

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<p>1.2.2.8 At Skopje aerodrome, a SAAB friction tester (SFT) is used.</p> <p>At Ohrid aerodrome a Skidometer Vammass BV-11 is used</p>	1.2.2.8
<p>1.2.2.9 Braking action will be estimated if the friction coefficient cannot be measured due to the unreliability of equipment or for any other reason.</p>	1.2.2.9
<p>1.2.2.10 When ice, snow, or slush is present at 10% or less of the area of a runway, or only water is present friction coefficient will not be measured and braking action will not be estimated. If in such a situation water is present, the runway will be reported WET.</p>	1.2.2.10
<p>1.2.2.11 Snow clearance and measures for improvement of braking action will be implemented, and maintained as long as conditions on the movement areas may impede the safety, and regularity of air traffic.</p>	1.2.2.11
<p>1.2.2.12 Whenever the clearance of snow, slush, ice, etc. from the various parts of the movement areas, including the lighting system, cannot be carried out simultaneously, the order of priority will be as follows:</p> <ul style="list-style-type: none"> a. runway; b. taxiways which are the shortest connection between RWY and apron; c. apron(s); d. other areas in the order of priority so as to re-establish normal operations. 	1.2.2.12
<p>1.2.2.13 In order to improve the braking action, chemical de-icing may be applied. Chemical de-icing will be carried out with approved chemicals which do not present a hazard to aircraft, such as UREA and Runway Fluid.</p>	1.2.2.13
<p>1.2.2.14 During initial clearing, on an area adjacent to a runway, taxiway or apron, the height of snow profile will be reduced in accordance with the guidance in the ICAO Airport Services Manual Part 2, Chapter 7. If the height of snow banks is greater than so prescribed it will be considered a hazard and reported by SNOWTAM</p>	1.2.2.14
<p>1.2.2.15 Aerodrome snow clearance will now use the SNOWTAM form for reporting. This information will be delivered to AIS for further dissemination.</p>	1.2.2.15
<p>1.2.2.16 Information on snow conditions at each aerodrome will be disseminated direct from the individual aerodrome for series S (SNOWTAM) action.</p>	1.2.2.16

ENGLISH

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1.2.2.17 In cases when a postponement of clearance operations may involve additional risk of a more hazardous nature due to difficult clearing operations (e.g. forming of solid ice over the RWY) the snow clearance operations may necessitate the temporary closure of the aerodrome.

Such interruption to the availability of the aerodrome will be notified by NOTAM.

1.2.2.18 When ice, snow, or slush conditions no longer prevail, and chemicals are no longer in use, the reporting actions will cease after the issue of a cancellation of the related SNOWTAM, and a new SNOWTAM will not be issued until such conditions may recur.

1.2.2.19 Information on braking action will be given in terms of the measured friction coefficient or estimated surface friction.

When giving a measured coefficient two digits are indicated (0 and the comma being omitted). In addition, the kind of measuring device used will be reported in abbreviated form. When giving an estimated surface friction, single digits will be used. In MOTNE transmissions a special code will be used.

1.2.2.17

1.2.2.18

1.2.2.19

Measured Friction Coefficient	Estimated Surface Friction	Code	ENGLISH
			MACEDONIAN
0.40 and above	good	5	
0.39 to 0.36	medium to good	4	
0.35 to 0.30	medium	3	
0.29 to 0.26	medium to poor	2	
0.25 and below	poor	1	
unreliable	unreliable	9* †	

* "Unreliable" (code 9) will be reported when, for any reason, measuring results and estimates are considered to be unrealistic.

†

1.2.2.20 Wet runway surface friction tests will be made annually, or when it is suspected that the general braking characteristics of a runway are reduced (changes of the surface texture, mud, dust, rubber, oil deposits and other contaminants).

When the friction coefficient of a wet runway is found to be below the values of maintenance level in column 3 of the table below, information that the runway is slippery when wet, will be disseminated by NOTAM. At the same time, appropriate maintenance action will be considered to improve the braking conditions (grooving, resurfacing or cleaning).

1.2.2.20

Test Equipment	Design objective for new RWY surface	Maintenance Level;	Water depth test (mm)	Test speed (km/h)	ENGLISH
					MACEDONIAN
MU-meter					
method 1	0.7	0.5	1.0	65 L	
	0.64	0.4	1.0	95 L	
method 2	0.65	0.45	0.5	130 L	
Skidometer and Surface Friction Tester	0.7	0.5	1.0	65 H	
	0.6	0.4	1.0	95 H	
	0.5	0.35	1.0	130 H	
Skidometer	0.8	0.67	1.0	65 L	
Surface Friction Tester and Runway Friction Tester	0.8	0.6	1.0	65 L	
	0.7	0.5	1.0	95 L	
Notes:					
The values in columns 2 and 3 are averaged values representative of the runway or significant points thereof.					
- L : with low pressure tyre					
- H : with high pressure tyre					

1.2.2.21 The aerodrome authority will report the presence of water on the centre half of the width of the runway to the appropriate ATS unit. The presence of water, including the depth and location, if applicable., will be reported in the following terms:

- damp
- wet
- water patches
- flooded

1.2.2.21

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