

Snow Removal, Ice prevention and Aircraft De-Icing Management Plan

EDITION dated

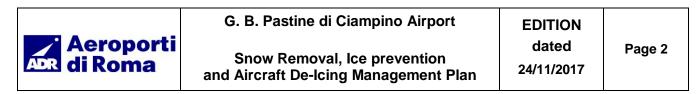
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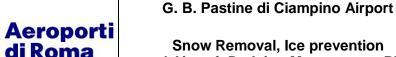
ADR CMO/SOC



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1. PUPOSE

This Plan for managing snow removal and ice prevention and/or removal activities in the Airside and Landside areas and the execution of aircraft de-icing, describes:

- the functions of the Authorities involved:
- the flow of information between the Authorities involved and external authorities;
- the general operating procedures.

2. INTRODUCTION

ADR S.p.A., in order to limit the negative effects on airport operations resulting from possible snowfall and/or ice formation, has shared with ENAV-Ciampino for the winter season 24 November 2017 - 30 April 2018, this Airport Plan, "Snow Removal and Ice Prevention".

The criteria adopted comply with the contents of Appendix ICAO 14, Chapter 2, paragraph 2.9 and of the Airport Service Manual ICAO, Part 9, Chapter 4.

On submitting snow forecasts at the airport at least 24-48 hours in advance, AdR shall assess whether or not it is necessary to immediately convene the Snow Committee, the purpose of which shall be to assess the actions to be taken. In the event that the forecast meteorological event (snow or ice) may have a significant impact on airport operations, the Snow Committee (if convened by the Airside Area Post Holder) may arrange for a reduction in the airport's capacity. This aeronautical information shall be ensured by issuing a specific NOTAM for carriers.

3. AUTHORITIES INVOLVED

"Authorities Involved" refers to public and private organisations that take part in the operations and/or contribute to the performance thereof in any way. Such authorities are listed below:

- Aeroporti di Roma S.p.A.
- ENAC Lazio Airport Directorate Rome Ciampino Airport Department
- ENAV S.p.A. C.A. Ciampino



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- AOC
- Handler
- Finance Police
- Carabinieri
- Border Police
- Fire Brigade Ciampino Headquarters
- Municipal Police

4. SCOPE OF APPLICATION

The plan is activated in the event of the forecast or occurrence of snowfall or ice formation affecting the aircraft movement areas (also referred to as the "Airside" area) and the ordinary roads within the airport grounds outside of the customs gates (also referred to as the "Landside" areas) bordering with the road outside of the airport grounds (Via Appia). In the first case, prevention operations are activated; in the second, snow and/or ice removal procedures are initiated. Interventions may be activated within 24 hours, depending on the changes in the weather conditions.

The indicative reference period is from 1 December until 30 April of each year.

If necessary, the plan may in any case be activated by the ADR Duty Station Manager, in coordination with the Airside Area Post Holder Area, outside of the aforementioned time frame.

5. REGULATORY FRAMEWORK

- Appendix 14 ICAO, Chapter 2, Paragraph 2.9
- Airport Service Manual ICAO Part 9, Chapter 4
- ENAC Regulation for Airport Construction and Operation
- Circular APT-10A

6. CONTENTS OF THE PLAN

6.1 Authority responsible for snow and ice removal operations

AdR S.p.A. is responsible for ensuring and reporting the operating conditions of the Airside and Landside areas, in relation to the presence of snow and/or ice. To this end, in the event of forecasts of snowfall at Ciampino airport, AdR must ensure:

 the convocation of the Snow Committee with at least 24-48 hours in advance (if deemed necessary according to the weather forecasts received from the ENAV weather offices) in order to assess the actions to be taken;

- the communication to the available ENAC Ciampino official of the issuance of the TAF (please see paragraph 6.3);
- the communication to the available ENAC Ciampino of the receipt of airport notices from ENAV of snow or ice (notice of snow 6 hours in advance and alerts of snow not before 6 hours from the expected start of snowfall);
- the coordination of interventions;
- the proposal to the available ENAC Ciampino official of the possible suspension and resumption of air traffic in relation to the airport's operating conditions;
- prevention interventions for the formation ice in the airside area and on the strategic roads for accessing and/or exiting the airport;
- the identification of operational actions to be taken, in terms of priority, making specific reference to the order of aircraft departure;
- the definition of the airport's arrival flow capacity (mov/h) in relation to the availability of aircraft parking bays with ENAV C.A. Ciampino and the subsequent communication of the information to the available ENAC Ciampino official.

6.2 Snow committee

The "Snow Committee" is the competent technical board comprising representatives of:

- AdR S.p.A.
- Available ENAC Ciampino official
- ENAV C.A. Ciampino
- AOC
- Handler
- Finance Police
- Carabinieri
- Ciampino Border Police
- Fire Brigade Ciampino Headquarters
- Municipal Police

If necessary, the committee shall meet after being convened by AdR S.p.A. (convocation by the Airside Area Post Holder), indicatively 24-48 hours prior to the forecast snowfall and/or ice formation (based on the reports of the TAF), or whenever necessary. In the event of situations of heavy snowfall and/or ice at the airport, the functions of the committee are as follows:

- to propose, share and adopt contingency actions for an effective management of the snow emergency;
- to define, under the responsibility of ADR ad ENAV-Ciampino, the airport capacity to be declared in the event of a reduced number of flights and to inform ENAC - Lazio Airport Directorate of the subsequent issuance of a NOTAM in the event of the reduced mov/h rate;
- to ensure, sufficiently in advance, the correct information provided to carriers;



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- to pre-coordinate any accommodation for cancelled flights;
- to manage the snow emergency, also involving the mobility managers to ensure they are aware of the status of active connections from/to the airport and the operability of the roads (connection infrastructure with the airport).

6.3 Procedures for communicating weather forecasts

ENAV C.A. Ciampino is the Authority responsible for communicating information regarding forecasts of snowfall and/or ice formation at Ciampino airport, provided via issuing a TAF – Terminal Aerodrome Forecast (Airport Forecast).

TAFs of Rome Ciampino are prepared and issued by the ENAV Weather Forecast Unit located at the ACC at Ciampino, at 06.00 GMT and updated every 6 hours (subsequent TAFs issued at 12.00, 18.00 and 00.00 GMT), valid for 24 hours.

If the TAF contains forecasts of snow and/or ice formation, ENAV C.A. Ciampino shall send a copy of the message to Flight Control on fax number 06-65959299 and shall subsequently make a telephone call to confirm receipt.

Flight Control shall promptly notify the Airside Area Post Holder and snow Coordinator. The Airside Area Post Holder shall assess the possible need to convene the Snow Committee.

ENAV CA Ciampino shall provide further updates whenever available.

Subsequently, if necessary, the Rome Weather Forecast Unit, via ENAV C.A. Ciampino, shall disseminate the Airport Notice containing the forecast of snow, ice or frost, in any case not before 6 hours prior to the start of the forecast weather event. As per the applicable procedure, the airport notice, received by C.A. Ciampino, shall be sent by fax, followed by a telephone call to Flight Control (Fax 06-65959299).

6.4 Procedures for suspending and resuming air traffic to carry out snow and ice removal operations

The available ENAC Ciampino Official shall arrange for the suspension and subsequent resumption of air traffic according to the information relating to the start and end of the activities carried out by the snow or ice removal vehicles in the airside area, provided by Aeroporti di Roma.

6.5 Procedures for snow and/or ice removal and priority Airside interventions

The airport notices having been received from ENAV, i.e., the snow forecast, 6 hours prior to the forecast snowfall and subsequent snow alert, not before 6 hours prior to the start of the forecast event, Flight Control and the Duty Station Manager of ADR Services shall alert the staff responsible for managing the snow emergency, as provided for by procedure MOV-10.

The snow Coordinator, at least a couple of hours prior to the forecast event, shall coordinate the technical maintenance staff to spray anti-ice liquid. Subsequently, during



Aeroporti di Roma must ensure the resumption of operating conditions in the following indicative order:

- runways and junctions AA and AF;
- taxilane ALPHA;
- Fire Brigade and ADR Emergency Services access areas;
- aircraft parking areas, taxilanes and adjacent roads;
- Landside roads affected (please see Appendix 2).

The outsourced company contracted by AdR S.p.A., activated by the Duty Station Manager in agreement with the Snow Coordinator, if necessary, shall arrange for the collection and transportation of snow from the Airside area to the dedicated accumulation areas, under the supervision of Operational Security by radio contact with the TWR.

In the event that the intervention of other support vehicles is required, these shall be activated by the company contracted by AdR.

During the snow removal operations, all necessary actions must be carried out in order to:

- prevent the accumulation of snow banks on the border of the runways, safeguarding the integrity and visibility of the Visual Light Aids;
- remove snow from inside critical radio assistance areas, in coordination with ENAV-Tecnosky, whenever the height of the snow tends to exceed the planned limits.

Snow removal from the aircraft parking areas shall be such as to ensure the visibility of the relevant signposts.

The antifreeze chemical products that may be used on pavement areas do not have corrosive, toxic, flammable or contaminating features, nor do they cause slipping on the pavements.

On completion of the intervention using Safegrip anti-ice liquid to treat the pavements, the snow coordinator shall inform flight control of the need to inform the airport operators, as far as concerns them, via the Everbridge system.

6.5.1 Performance and features of the snow removal service

The removal of snow shall be carried out with combined vehicles equipped with a snow sweeper blade, a rotating brush, a snow plough, blower turbine and snow sweeper turbine. The intervention shall be carried out according to a standard order, which can vary according to the intensity of snowfall. This order provides, first and foremost, for vehicles equipped with a snow sweeper blade, via which snow is consistently removed by sweeping and accumulation thereof to the outside of the pavement, followed by the auto-sweeping intervention, which shall permit, by means of the blower turbine, the removal of layers of



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residual snow to the shoulder of the runway and taxilanes. In the event of heavy snowfall and resulting deep layers of residual snow, the snow plough, equipped with a snowsweeping turbine, shall be used to remove residual snow from the areas to green areas within the strip.

In the event that it is necessary to create, within the green areas inside the strip, large accumulations of snow, its removal shall be ensured by the intervention of vehicles of the outsourced company contracted by AdR S.p.A., comprising rotating brushes and lorries for transporting snow to duly identified suitable areas.

Snow removal intervention times shall depend on the intensity of the weather conditions.

6.5.2 Methods and procedures for detecting friction coefficients on the runway

Measurements of friction coefficients on the runway shall be carried out by Operational Security staff, by assessing the feasibility of such operation according to the weather conditions and type of contaminant.

The measurement shall be carried out according to the applicable internal procedures and the processing of available data (friction coefficient, pilot braking actions reports, Runway Condition Code) to draw up the SNOWTAM form and the Runway State Group Message shall be conducted according to the method required in procedure MOV-05 of the airport manual.

The final data established by the SNOWTAM form and Runway State Group Message shall be sent to TWR by fax (TWR fax 06/79086511).

6.5.3 Snow removal and ice prevention on refuelling supplier roads

AdR S.p.A. shall also arrange for the removal of snow and/or prevention of ice formation on the entry/exit roads within the 31st hangar, used by vehicles for refuelling aircraft (please see Appendix 3).

6.6 Snow removal and ice prevention in the landside area

Aeroporti di Roma, following the ENAV weather notice, shall ensure, within the airport's Landside grounds, ice prevention and snow removal interventions by means of the intervention of the company contracted by AdR S.p.A. If possible, AdR may temporarily anticipate the intervention of the outsourced company with the use of its own vehicles.

The priority for snow removal shall be given to the access roads for external emergency vehicles (gate no. 5 dedicated to the entry and exit, to/from the Airside area, of external emergency vehicles (please see Appendix 2)), to the Terminal roads, to the access road for the south gate and 31st hangar and, subsequently, to the taxi bays, bus stops and car park access routes.



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These priorities may be changed according to the weather conditions and shall be assessed on a case-by-case basis with the ENAC Lazio Airport Directorate - Rome Ciampino Airport Department official and State Authorities (Airport Police, Carabinieri and Municipal Police).

Subsequently, with the aim of achieving complete normalisation of the circulation of vehicles as soon as possible, operations shall proceed on the remaining roads within the airport's Landside grounds.

The external grounds for which AdR is responsible are highlighted on the layout plan (please see Appendix 2).

Note: AdR S.p.A.'s unregistered vehicles for snow removal in possession of an insurance policy are exceptionally authorised to be used in the Landside area as a possible back-up for registered vehicles.

6.7 Provision of anti-snow and anti-ice vehicles and equipment

- 2 Snow-sweeper blades mounted on a vehicle (blade length: 4.30 m)
- 1 Auto-sweeper FRESIA 2000 with a snow-sweeper and blower turbine (blade length: 5.50 m)
- 1 Fresia snow remover with snow-sweeper turbine (plough length: 2.50 m)
- 1 lveco Trakker with snow-sweeper blade (blade length: 5.60 m)
- 1 Fresia Spargi antifreeze liquid
- 31,000 litres of Safegrip anti-ice liquid

All anti-snow vehicles, both those owned by AdR S.p.A. and those owned by the contracted company, must be clearly equipped with snow tyres and the circulation of vehicles intended to assist aircraft on the taxiways that are not yet cleared of snow is only permitted for vehicles equipped with such tyres.

6.8 Information on airport connection roads

The ADR Duty Station Manager, once the snow and/or ice removal activities have been completed, shall contact the operating room of the Municipal Police to have the real-time operating conditions of the connection roads with Ciampino airport. If the conditions are such as to permit the use of the external roads by external emergency vehicles (ARES 118), the flight activities shall be resumed. Otherwise, the runway shall remain closed, communicating such information to the Airside Area Post Holder Area and to the available ENAC Ciampino official.

6.9 External information media

External information media for disseminating notices to users and operators are to be carried out via radio and television networks that the press authorities, to which the Duty Station Manager, by means of ADR Institutional Reports, shall provide useful notices for preparing press releases, after informing the Rome Ciampino Airport Department.



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The airport information for users and internal operators is ensured by systems used by the Aeroporti di Roma management company and by the airlines insofar as they are concerned.

6.10 De-icing activities

Below are the procedures for activating and using the anti-icing/de-icing service for aircraft. The tasks assigned to the individual authorities and flow of information between them are defined.

6.10.1 Vehicle and liquids used

The de-icing vehicle used by AdR to carry out the de/anti-icing service is a "one/two-man operated" vehicle, with a cabin that can be raised to a sufficient height to reach all critical parts of the aircraft operating at CIA (up to code E).

The vehicle's tanks have a capacity of 5,300 litres for water and 2,270 litres for Type II liquid (ISO 11078, AMS 1428).

- During this season, Kilfrost ABC3 type II de/anti-icing liquid has been replaced by • the manufacturer with the product Kilfrost ABC K PLUS type II.
- In line with other Italian airports, given the change of liquid, to permit the monitoring • of the performance of the liquid in the first period of application, it will only be possible to perform de/anti-icing operations with a two-step procedure, with a glycol/water mixture according to step 100/0. The aforementioned information shall be disclosed via a specific NOTAM.

6.10.2 General information

The de-icing process is provided in H24 by ADR Exercise and Maintenance staff following a request sent to ADR Flight Control.

In order to ensure a fair and transparent service for all Operators, the sequence of aircraft to undergo the de-icing process shall be automatically established according to the time of receipt of the request. Exceptions may be made for state/humanitarian/emergency/firefighting flights or following an express request by ENAC or the Airport Police.

From 24:00 until 06:00 LT, the service can be used with a minimum notice period of 60 minutes.

6.10.3 Service Activation

The de-icing request must be received by Flight Control via telephone no. 06 6595 9298. In the event of any specifications concerning the process (details of the wing surfaces to be treated), the request must also be sent by email: <u>aptcoordinationcia@adr.it</u> or to fax no. 06 6595 9299.



6.10.4 Service provision

The de-icing and anti-icing service is carried out using the de-icing equipment in the aircraft parking areas.

The de-icing/anti-icing operations carried out by Aeroporti di Roma are characterised by the following macro phases:

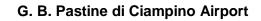
- Receipt of the request for intervention;
- Execution of the intervention;
- Compiling and signing the intervention forms (Appendix 4);
- Activation of the billing process.

The de-icing operator receives the communication from Flight Control regarding the deicing/anti-icing intervention (taxiway, carrier, aircraft) and carries out the following activities:

- goes on board and receives the instructions from the carrier (technician, ramp operator, company representative) regarding the requested intervention (surfaces to be treated, percentages of the mixture to be applied and procedure);
- having performed the intervention, he/she shall fill in the specific form (please see Appendix 4), stating all information regarding the intervention and shall deliver a signed copy to the carrier or its delegate, countersigned by the latter in acceptance;
- he/she shall contact ADR Operational Security at the end of the process to verify the operability of the taxiway.

Ciampino, 24/11/2017

Paolo Giannobile Airside Area Post Holder



7. APPENDICES

ADR

Aeroporti di Roma

Appendix 1: List of authorities involved

	Airside Area Post Holder	0665959511 3316227786
	Snow Coordinator	+39 0665956935 3426202154
	Snow Coordinator	+39 0665959339 3351025192
ADR S.p.A.	Duty Station Manager	+39 0665959453 3357422867
	Flight Control	0665959297/8
	Operational Security Supervisor	0665959393

ENAC	Available ENAC Ciampino Official	Please see monthly availability list
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FNΔV	Manager of ENAV C.A. Ciampino	335427614 3355301509
ENAV	ENAV Weather Forecast Unit	0679086543

Municipal Police	Operating Room	0667695495-6 (07 - 24) 0667691 (00 - 07)		
Finance Police	Operating Room	9340		
Carabinieri Operating Room		0679702812		
Border Police	Operating Room	9444		
Fire Department	Operating Room	9999		

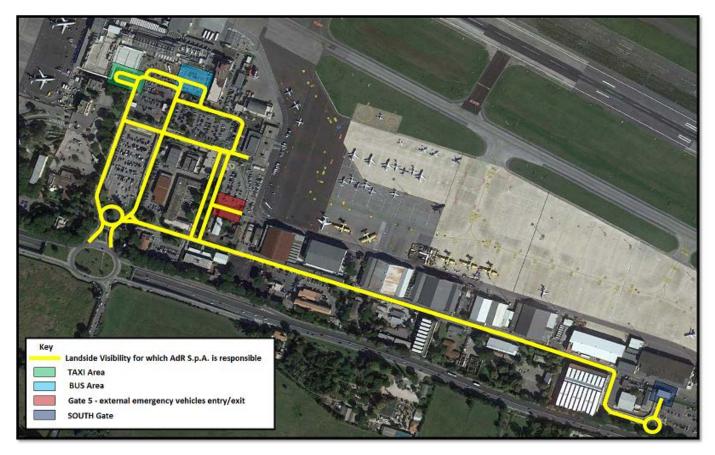
Handler	Emergency telephone number			
Aviation Services S.p.A.	340 6693173			
Consulta S.p.A.	Emanuele Marino 327 6194743 3779521571			
GH Napoli S.p.A.	340 1711700 – Night-time hours 340 1715350			
ARGOS Vip Private Handling s.r.l.	Loris Di Filippo 340 1931266 General Aviation 348 7416727			
Prime Aviation Services S.p.A.	340 2193486			
Sky Services s.r.l.	333 4728912			
Universal Aviation Italy s.r.l.	Stefano Bruno 3498515729 Loredana Carraro 348 2498550			
Aviapartner Handling S.p.A.	Valerio Brenci 345 8481395 Marta Palmieri 345 8494428			



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Appendix 2: Landside Road for which AdR S.p.A. is responsible





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Appendix 3: Refuelling Routes for which AdR S.p.A. is responsible

Aeroporti di Roma



	G. B. Pastine di Ciampino Airport	EDITION	
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Appendix 4: De-icing service form

Aeroporti ADR di Roma							
SERVIZIO DE/ANT	THCING	N°			data/date		
Vettore/Carrier		volonlight			p.la/stand		
matricola / AC reg]		tipo aeromob	ile/AC type		
Inizio de-icing (de/anti-	icing start time)		ı.				
Fine de-Icing (de/anti-k	(ing end time)		n.				
RICHIESTA DEL VET Procedura/Procedure		F	Pre-step		De-loing	Anti- 1 STEP	-loing 2 STEP
] [20165
% Misoela /Mixture] tali /piani		timone di		fusoliera/	
Superfiel/Surfaces	all / wings	di coda		coda/rudder		fuselage	
PRESTAZIONE/PERF	ORMANCE						
PR0 Early		miscela %(m	nixture)		[
PR1 Pre-step		acqua calda	(hot water)		[
PR2 De-loing		miscela %(m	nixture)		[
PR3 Anti-loing		miscela %(m	nixture)		[
One step	two step						
PRODOTTI		F					
Temperatura acqua - Liquido tipo II - type I	-	Ľ		c= t.			
SUPERFICI TRATTAT	E						
all / wings	tali /piani di coda			usollera/fuse	lage		
timone di codalrudder				altro/other			
CONDIZIONI METEOR	ROLOGICHE						
sereno/sunny	CO	perto/cloudy		ven	toso/windy		
pioggia/rain	9	randine/hail			neve/snow		
OAT - temperatura es	terna - C°						
NOTE							
The A/C has been spi	ayed correctly and t	he treated su	urfaces are f	ree of conta	mination		
Operatore ADR - ADR	de-loer	F	Firma rap. v	ettore - Airlin	ne rep. signa	ature	
Automezzo/truok	nº 600.						

Liquido antighiaccio usato: KILFROST ABC-K PLUS type II supplied by KILFROST Ltd. GB