



Leonardo Da Vinci - Fiumicino Aerodrome

# **E-15 - SAFETY RULES**

**VOLUME 5 - Adverse Weather Conditions**

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## AUDIT LOG VOLUME 5

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## INTRODUCTION

The complexity of the airport layout, aircraft size, and visibility conditions - all variables that could make the strategic organization of airside movement insufficient - impose the need for concerted action by the relevant organizations (the ENAV for aircraft and the Airport Manager for vehicles and personnel). Thus, a coordinated action with possible reflections on the prerogatives and responsibilities of both companies.

The following guidelines contain a set of recommendations and behavioral standards applicable in various adverse weather conditions and addressed to all personnel engaged in airside operations. The purpose is to ensure, in accordance with the Safety Rules (DDS) contained in the Aerodrome Manual (MDA), compliance with national and international regulations regarding the safety of aircraft operations [according to Regulation (EU) n. 139/2014], during adverse weather conditions for each specific ongoing weather phenomenon.

## 5.1 LOW VISIBILITY CONDITIONS

5.1.1. The ADR CEA (Aeroporti di Roma Airport Emergency Center), in case of a forecast of "low visibility conditions" (LVP), will promptly inform all airport operators. The latter are obliged, once they receive the telex/mail message of LVP forecast, to relay it to their service providers, according to their own internal procedures (Ref. IATA IGOM).



5.1.2. Information on low visibility conditions on the field is also disseminated by the CEA through information displays available at the entry point.

5.1.3. Use at aircraft stands of the Visual Docking Guidance System (A-VDGS - Optical Guides) to facilitate widespread dissemination of warnings to operators in the airfield. The optical guides (A-VDGS) available at the aircraft stands in the 300/ 400/ 500/ 600/ 700/ 800/ 900 quadrants can carry informational messages about adverse weather conditions.

5.1.4. Air Operator and Airport Service Providers should consider the fact that reductions in airport services could occur due to specific risk mitigation measures taken by Aerodrome Operators.

5.1.5. In When LVPs are set up, all vehicles and workers involved in construction, maintenance and other non-essential activities shall suspend the movement of their vehicles, which shall be brought back within the limits of the construction site in a safety zone, previously assigned, without causing obstruction to airport operations. Where no designated staging areas are provided for vehicles, the instructions issued by ADR/ISE Operational Safety shall be followed.

5.1.6. Under visibility condition 2/3, the only vehicles authorized to operate in the Maneuver Area, subject to ENAV - TWR authorization, are attributable to the following companies:

- Aeroporti di Roma: vehicles destined for runway inspections, friction tests, snow clearing and de-icing, facility and infrastructure maintenance and control activities, follow-me, bird control (BCU).
- ENAV C.A. Fiumicino: vehicles designated in facility maintenance and control activities.
- TECHNO SKY: vehicles destined in facility maintenance and control activities.
- VVF: firefighting vehicles.

5.1.7. Under conditions of visibility 2/3, the only vehicles authorised to operate in Apron are:

- Vehicles already authorised to operate in the Manoeuvring Area.
- Vehicles required for regular ramp activities.
- Vehicles for security services.

5.1.8. The following provisions and operational limitations are applied during the LVP activation period:

- Suspension of aircraft refueling operations with passengers on board.
- Handling companies shall conduct hybrid boarding/disembarkation and/or walk-through (Ref. MDA E-14 GEN04) only through the boarding bridge and/or from the front door of the aircraft and will inform their service providers, according to their internal procedures.
- Reducing the speed of vehicles below the allowable limits, depending on actual visibility, in order to ensure adequate safety distances to other vehicles or aircraft and to be able to stop the vehicle at the stop/give way signs.
- Restricted circulation to only those vehicles necessary for the regular performance of ramp activities and security services. Only escorts are allowed to emergency vehicles, vehicles and equipment engaged in the management of an emergency (activation of the Airport Emergency Plan - PEA).
- Do not engage aircraft taxiway crossings if visibility conditions do not allow safe movement.
- Ensure that the vehicle's lighting equipment (low beam headlights or fog lights) is turned on.

5.1.9. The ground signal emitted by the ILS (Instrument Landing System) - that is, the electronic instrument landing guidance system for aircraft used in the final phase of approach toward an airport runway - is subject to unacceptable interference should an aircraft, vehicle, or person be within the relevant critical area. Therefore, for each critical area where the ILS is located, it is expected to:

- an all-weather protection system.
- the demarcation of the area with frangible stakes, ropes and vertical "no entry" signs.
- a prohibition on vehicles and people when approaches, landings or guided take-offs are in progress.

## 5.2 STRONG WIND CONDITIONS AND/OR GUSTS

5.2.1. The ADR CEA (Aeroporti di Roma Airport Emergency Center), in case of a forecast of "strong wind and/or gusts", will promptly inform all airport operators. The latter ones are obliged, once they receive the telex/email message of forecast of strong wind on the ground, to relay it to their service providers, according to their own internal procedures (Ref. Handling Activity Block IATA IGOM Ed.12 and 3.3.3 ICAO 10121).



5.2.2. Information on low visibility conditions in the field is also disseminated by the CEA through information displays available at the entry point.

5.2.3. Use at aircraft stands of the Visual Docking Guidance System (A-VDGS - Optical Guides) to facilitate widespread dissemination of warnings to operators in the airfield. The optical guides (A-VDGS) available at the aircraft stands in the 300/ 400/ 500/ 600/ 700/ 800/ 900 quadrants can carry informational messages about adverse weather conditions.

5.2.4. Carriers and Airport Service Providers should consider the fact that reductions in airport services could occur due to the specific risk mitigation measures taken by Aerodrome Operators, as reported below.

5.2.5. Air Operator, Service operator and Aircraft Maintenance Companies are obliged to insure:

- The anchoring of aircraft, materials, and equipment, as well as the proper braking of vehicles and vehicles of responsibility.
- Timely removal of potential FOD or contact ADR-CEA reporting the finding to allow removal.
- The affixing of cocks to aircraft and any removal of cones in fulfillment of the Carrier's IGOM.
- The use of vehicles/equipment within the limits prescribed by the manufacturer/ IGOM IATA relative to the maximum wind intensity to which the equipment can be safely used.
- The Service operator/Producer/Manufacturer is obliged to use the elevating/lifting means and in general all handling means/equipment, according to the manufacturer's specifications. Following the provisions of IGOM IATA and within the limits stated therein (where conflicting the choice of the most restrictive value is mandatory), relative to the maximum wind intensity to which the equipment is safely usable.-
- For the limitation of use of the Boarding Bridges and the pantograph system for the 400Hz cable in windy weather, reference should be made to the Technical Instructions for the Use of Boarding Bridges attached to the Aerodrome Regulation.
- In the event of a downpour with associated wind greater than 25 kt, the Aerodrome Operator will carry out hybrid boarding/disembarkation and/or walk-through (GEN04) exclusively through the boarding gate and/or from the aircraft front door and will inform its service providers, according to its internal procedures.

5.2.6. Site managers must ensure the rules of Volume 4 of this Document, Airside Construction Sites.

## 5.3 ELECTRICAL DISCHARGES IN THE AERODROME OR IN ITS IMMEDIATE VICINITY

The condition of "thunderstorm in the field" means a thunderstorm event with electrical discharges, located on the airport or within 3 nautical miles (about 5.5 kilometers) of the Control Tower structure.

ADR uses a monitoring system called "MeteoCast" that can detect thunderstorm activity and provide both the time and geographic location of the event in detail.



5.3.1. The CEA ADR (Aeroporti di Roma Airport Emergency Center), in case of a forecast of "electrical discharges on the field", provided by the MeteoCast system, will promptly inform all airport operators. The latter are obliged, once they receive the telex/mail message of field electric discharge forecast, to relay it to their service providers, according to their own internal procedures (Ref. IATA IGOM).

5.3.2. Information on electrical discharge conditions on the field is also disseminated by the CEA through the lighting of illuminated panels located at driveway and pedestrian access entrances into the airside. Lightning presence messages are provided in the information displays available at the entrance.

5.3.3. Use at aircraft stands of the Visual Docking Guidance System (A-VDGS - Optical Guides) to facilitate widespread dissemination of warnings to operators in the airfield. The optical guides (A-VDGS) available at the aircraft stands in the 300/ 400/ 500/ 600/ 700/ 800/ 900 quadrants can carry informational messages about adverse weather conditions.

5.3.4. Aerodrome operators, vehicles, and passengers are exposed to hazards from the presence of electrical discharges on airport site.

5.3.5. Air operator and Airport Service Providers should consider the fact that reductions in airport services could occur due to the specific risk mitigation measures taken by Aerodrome Operators, as reported below.

5.3.6. CEA ADR in case of electrical discharge on the field:

- richiede promptly requests the suspension of aircraft refueling operations to the Refueling Handler and Service Handler who are dedicated to the affected flights, through their respective Coordination Centers;
- does not authorize new refueling activities.

- 5.3.7. The Aerodrome Operator, upon receipt of the request referred to in the preceding article, is obliged to relay the message to its service providers and stop refueling operations immediately.
- 5.3.8. The Airport Operator will conduct hybrid boarding/disembarkation and/or walk-through only through the boarding bridge and/or from the front door of the aircraft and will notify its service providers in accordance with its internal procedures.
- 5.3.9. Operators shall strictly follow what is contemplated in their organization's risk assessment regarding Legislative Decree 81/08 to safeguard the safety of their workers.
- 5.3.10. Should it not be possible to access the MeteoCast system due to malfunctioning or interruption of data availability, CEA ADR will inform, by Telex/email, all Airport Operators of the unavailability of the data provided by CESI SIRF. For the suspension and reactivation of the refuelling service, the CEA ADR will forward the information on the beginning and end of the storm activity, provided by the ENAV Weather Service, which, although covering a larger area, is in any case the most precautionary solution, in the interest of the safety of refuelling operations.
- 5.3.11. Since electrical discharges are an easily detectable phenomenon, if system problems make it impossible for ADR to transmit the warning message, once the presence of electrical discharges in the field has been identified, ground handling service providers and manufacturers must immediately interrupt refuelling operations and strictly adhere to the rules of their organisation's risk assessment regarding Legislative Decree 81/08 to safeguard the safety of their workers.
- 5.3.12. The storm event with electrical discharges can be considered to have ended as of the 30th minute after the last discharge detected within three miles. This data is recorded by the CEA ADR and consequently communicated, reporting the time of the last storm discharge.



## **5.4 HEAVY RAIN**

5.4.1. The ADR CEA (Aeroporti di Roma Airport Emergency Center), in case of a forecast of "heavy rain", will promptly inform all airport operators. The latter are obliged, once they receive the telex/mail message of heavy rain forecast, to relay it to their service providers, according to their own internal procedures (Ref. Handling Activity Block IATA IGOM Ed.12 and 3.3.3 ICAO 10121).



5.4.2. Information on heavy rainfall conditions on the field is also disseminated by the CEA through information displays available at the entry point.

5.4.3. Use at aircraft stands of the Visual Docking Guidance System (A-VDGS - Optical Guides) to facilitate widespread dissemination of warnings to operators in the airfield. The optical guides (A-VDGS) available at the aircraft stands in the 300/ 400/ 500/ 600/ 700/ 800/ 900 quadrants can carry informational messages about adverse weather conditions.

5.4.4. Air Operator and Airport Service Providers should consider the fact that reductions in airport services could occur due to the specific risk mitigation measures taken by Airport Operators.

5.4.5. In case of heavy rainfall, the following precautionary measures are applied:

- in the event of a downpour with associated wind greater than 25 kt, the Aerodrome Operator will carry out hybrid boarding/disembarkation and/or walk-through (Rif. MDA E-14 GEN04) exclusively through the boarding gate and/or from the aircraft front door and will inform its service providers, according to its internal procedures;
- each driver shall reduce speed below the permissible limits in order to allow the vehicle to brake in such a way as to be able to stop it in the section separating it from the vehicle in front of it, and to stop it near the stop/give way sign.

5.4.6. Site managers must ensure the rules of Volume 4 of this Document, Airside Construction Sites.

## **5.5 SNOW, ICE AND HAIL**

5.5.1. The ADR CEA (Aeroporti di Roma Airport Emergency Center), in case of a forecast of "snow, ice or hail", promptly informs all airport operators. The latter are obliged, once they receive the telex/mail message of hail, snow and/or ice forecast, to relay it to their service providers, according to their own internal procedures (Ref. Handling Activity Block IATA IGOM Ed.12 and 3.3.3 ICAO 10121).



5.5.2. Information on snow, ice, and hail conditions on the field is also disseminated by the CEA through illuminated signs placed at airside driveway and pedestrian access entrances. Messages for lightning presence, low visibility conditions, high wind/raffic, heavy rainfall, snow/ice/hail are shown in the available information displays.

5.5.3. Use at aircraft stands of the Visual Docking Guidance System (A-VDGS - Optical Guides) to facilitate widespread dissemination of warnings to operators in the airfield. The optical guides (A-VDGS) available at the aircraft stands in the 300/ 400/ 500/ 600/ 700/ 800/ 900 quadrants can carry informational messages about adverse weather conditions.

5.5.4. Air operator and Airport Service Providers must consider the fact that reductions in airport services may occur due to specific risk mitigation measures taken by Airport Operators.

5.5.5. The Aerodrome Operator will carry out hybrid boarding/disembarkation and/or walk-through (Rif. MDA E-14 GEN04) only through the boarding bridge and/or from the aircraft's front door and will inform its service providers accordingly, according to its internal procedures.

5.5.6. Use of vehicles in snow, ice and hail:

- the driver should reduce the speed of the vehicle below the permitted limits and according to the grip conditions. The purpose is to allow the vehicle to stop while ensuring both adequate safety distances to other vehicles or aircraft and compliance with signs (stop/giving way).
- in the event of snow and/or ice accumulation on the ground, the Handler/Autoproducer shall ensure the availability of vehicles with the necessary equipment to keep their vehicles in service and the availability of pushbacks with sufficient power to allow safe pushing of aircraft with contaminated soil.

## 5.6 ACRONYMES

A-VDGS - Visual Docking Guidance System (Optical Guides)

ADR ISE - Airport Operational Security Aeroporti di Roma

BCU - Flight Control Aeroporti di Roma

CEA ADR - (Airport Emergency Center - Aeroporti di Roma)

ENAV - National Civil Aviation Authority

IATA - International Air Transport Association

ICAO - International Civil Aviation Organization

IGOM - IATA Ground Operations Manual

ILS - Instrument Landing System

LVP - Low Visibility Procedures

MDA - Aerodrome Manual

TWR - Control Tower

VVF - Fire Brigade