European Union Aviation Safety Agency

Aerodromes (ADR)

In case the answer you were looking for in this FAQ section is not available: you might submit your enquiry here.

Aerodromes

ADR.1 Which aerodromes fall under the EASA Basic Regulation and its implementing rules?

Answer

According to Art. 2.1 (e) of Regulation (EU) 2018/1139, the applicability of the Basic Regulation (BR) in the domain of aerodromes is as follows:

(e) the design, maintenance and operation of aerodromes, including the safety-related equipment used at those aerodromes, located in the territory to which the Treaties apply, which:

(i) are open to public use;
(ii) serve commercial air transport; and
(iii) have a paved instrument runway of 800 metres or more, or exclusively serve helicopters using instrument approach or departure procedures;

According to Art. 2.7 of the BR, a Member State can decide to exempt the design, maintenance and operation of an aerodrome, and its safety-related equipment, where that aerodrome handles no more than 10,000 commercial air transport passengers per year and no more than 850 movements related to cargo operations per year. However, the Member State concerned must ensure that such exemption does not endanger compliance with the essential requirements for aerodromes that are detailed in the Annex VII of the BR.

Art. 2.7 details this exemption possibility even further and states that:

- When such exemption decision is taken for a specific aerodrome, the design, maintenance and operation of the aerodrome concerned and the safety-related equipment and ground handling services and AMS (apron management services) at that aerodrome shall no longer be regulated by this Regulation and by the delegated and implementing acts adopted on the basis thereof;

- When such an exemption decision was granted without meeting the traffic conditions, the Commission will address an Implementing act to the the Member State concerned to modify or revoke its exemption decision; and notify the Commission and the Agency thereof;
- The Member States need to also to notify to the Commission and the Agency all “old” such low traffic exemptions granted under Art. 4 (3b) of the revoked Regulation 216/2008 and examine their traffic figures annually. Where this examination demonstrates that, over three consecutive years, one of those aerodromes handles more than 10 000 commercial air transport passengers per year or more than 850 movements related to cargo operations per year, the Member State concerned shall revoke the exemption of that aerodrome.
- All such revocations need to be notified to the Commission and the Agency, and the Agency shall include all decisions by the Commission and the Member States in the repository, described under Art. 74 of the Basic Regulation.

A list of currently exempted aerodromes is found on EASA's website: List of aerodromes falling in the scope of Regulation (EU) 2018/1139 [Regulation (EC) No 216/2008] .You can directly filter on screen and download the information.

A Member State shall use a dedicated platform (FlexTool) to provide needed information and upload associated documentation. For troubleshooting, the FlexTool Focal Point (FoP) for the country should contact exemptions [at] easa.europa.eu (exemptions[at]easa[dot]europa[dot]eu).

Aerodrome traffic exemptions notification form (EC) 216/2008 only applicable for Iceland, Liechtenstein & Norway.

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31/07/2023

Link:

https://www.easa.europa.eu/el/faq/19499

ADR.2 Is an extension of the applicability of the EASA rules towards smaller aerodromes planned?

Answer

As stated in Recital (7) of Regulation (EU) No 2018/1139, a “deepening of the scope” is not planned:

“It would not be appropriate to subject all aerodromes to common rules. Aerodromes which are not open to public use or aerodromes which do not serve commercial air transport or aerodromes without paved instrument runways of more than 800 metres and which do not exclusively serve helicopters using instrument approach or departure procedures should remain

under the regulatory control of the Member States, without any obligation under this Regulation on other Member States to recognise such national arrangements."

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Link:

https://www.easa.europa.eu/el/faq/19501

ADR.3 What is the "Certification Basis" of an aerodrome?

Answer

The term "Certification Basis" (CB) is a key term in the area of oversight of aerodromes. According to Art. 34.1 (a) of the Basic Regulation (EU) No 2018/1139 a certificate is required for aerodromes in scope of the BR. The process of obtaining such an aerodrome certificate involves the establishment of the aerodrome's CB to describe the infrastructure and equipment in terms of the regulatory requirements which they are meant to comply with. The concept of the CB gives also the necessary flexibility to take account of the non-uniform elements of the infrastructure at Europe's airports. The CB concept does so by allowing local solutions to local issues of deviations from the European aerodrome certification specifications (CS). This CB document is proposed by the applicant (usually the aerodrome operator) and is finally decided on by the Competent Authority, the State entity designated to certify and oversee aerodromes.

The CB concept is enshrined in the Basic Regulation under Art. 34.5, where it is stipulated that the certification basis for an aerodrome shall consist of the following:

- *a) the applicable certification specifications related to the type of aerodromes;*
- *b) those provisions of the applicable certification specifications for which an equivalent level of safety has been accepted;*
- *c) the special detailed technical specifications necessary when the design features of a particular aerodrome or the experience in operation render any of the certification specifications referred to in point (a) of this paragraph inadequate or inappropriate to ensure conformity with the essential requirements referred to in Article 33.*

The CB can be a list of all the applicable Certification Specifications, which are relevant to the aerodrome infrastructure elements in question, ideally with an indication for each infrastructure element how each relevant and applicable CS is satisfied. For CS that are not met, an equivalent level of safety (ELOS) or special condition (SC) can be proposed. The CB would normally reference the documentation showing the compliance, the ELOS or the SC, as the

case may be.

When the applicant has demonstrated that the aerodrome complies with the agreed CB as per ADR.OR.B.025 (in Annex II of Regulation (EU) No 139/ 2014), one condition for the issuance of the certificate would be met. The final aerodrome certificate shall be considered to include the aerodrome's CB, and moreover any Deviation Acceptance and Action Documents (DAAD) based on Art.7 "Deviations from certification specifications" of Regulation (EU) No 139/2014, which may have been issued. (See also ADR.AR.C.035 (d) in Annex II of 139/2014).

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ADR.4 When establishing the certification basis of aerodrome, to what extent will the Competent Authority be allowed to take into account the differing environments and location of aerodromes?

Answer

There are altogether three important "flexibility tools" in the process of the certification of aerodrome infrastructure and design. Firstly, the establishment of an individual aerodrome Certification Basis (CB) includes the possible element of special conditions (SC), as described under ADR.AR.C.025 in annex II of Regulation (EC) No 139/2014. It gives the flexibility to the authority to allow deviations from the Agency's Certification Specifications when the aerodrome is subject to topographical, physical or other limitations.

Secondly, the concept of the equivalent level of safety (ELOS), as described ADR.AR.C.020 (b) in Annex II of Regulation (EC) No 139/2014, may also allow for technological solutions or alternatives to be introduced into the CB instead of complying with the applicable certification specification(s). This is on condition that the authority allows for such an equivalent level of safety to be demonstrated (see also the Agency's Guidance Material for ADR.AR.C.020).

Furthermore, the concept introduced by Art. 7 "Deviations from certification specifications" of Regulation (EC) No 139/2014 allow competent authorities to accept "legacy" deviations from the certification specifications until the end of 2024 for newly certified. Such "legacy" deviations have to pre-date the coming into force of the said Regulation (i.e. have existed before 6 March 2014) to continue as long as they cannot be captured with the aforementioned concepts, are safety assessed, mitigated and undergo regular reviews to establish their continued legitimacy. Such acceptances may be formalised in what is called a "Deviation Acceptance and Action

Document” (DAAD).

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Link:

https://www.easa.europa.eu/el/faq/19503

ADR.5 What is the Deviation Acceptance and Action Document (DAAD) described in Art. 7 of Regulation 139/2014?

Answer

The old and the new Basic Regulation (BR) tasked the Agency to provide solutions to measures at existing aerodromes, which Member States had already authorized on the basis of national law and which stem from notified deviations from Annex 14 filed by the Member States to International Civil Aviation Organization (ICAO). One of the tools that the Agency developed in order to meet this request is found in Art. 7 “Deviations from certification specifications” of the aerodrome implementing rules (Regulation (EU) No 139/2014). It says the following:

Article 7 Deviations from certification specifications

1) The Competent Authority may, until 31 December 2024, accept applications for a certificate including deviations from the certification specifications issued by the Agency, if the following conditions are met:

a. the deviations do not qualify as an equivalent level of safety case under ADR.AR.C.020, nor qualify as a case of special condition under ADR.AR.C.025 of Annex II to this Regulation;

b. the deviations existed prior to the entry into force of this Regulation;

c. the essential requirements of Annex Va to Regulation (EC) No 216/2008 are respected by the deviations, supplemented by mitigating measures and corrective actions as appropriate;

d. a supporting safety assessment for each deviation has been completed.

2) The Competent Authority shall compile the evidence supporting the fulfilment of the conditions referred to in paragraph 1 in a Deviation Acceptance and Action Document (DAAD). The DAAD shall be attached to the certificate. The Competent Authority shall specify the period of validity of the DAAD.

3) The aerodrome operator and the Competent Authority shall verify that the conditions referred to in paragraph 1 continue to be fulfilled.

This means that during the initial certification process all existing deviations at an aerodrome

must undergo review. In a next step, all deviations which cannot be handled with the other flexibility tools provided (i.e. the Equivalent Level of Safety and Special Condition), and which pre-date 2014, can be accepted by the Competent Authority in a “Deviation Acceptance and Action Document” (DAAD), which would be attached to the certificate, but which does not form part of it.

Such a DAAD will have to describe the deviation, contain the outcomes of a safety assessment concerning the deviation and describe how the essential requirements of Annex VII of Regulation 2018/ 1139 are nevertheless respected by the deviation, when supplemented by mitigating measures and corrective actions as appropriate. It could also be that the Competent Authority includes an action plan for the removal of the deviation at some point in the future. Despite the issuance of a DAAD the deviation(s) should be regularly reviewed.

When a DAAD is issued, there is no pre-defined expiry date. While a “validity period” must be stated, it must not necessarily be a temporal period. It can also be a traffic volume threshold or in relation to a change in the traffic mix (aircraft type) or a condition whereby the rectification (the “fixing”) of a deviation is related to the next time when a piece of infrastructure is changed, renewed, re-furbished or maintained. It is up to the authority to decide. However, after 2024 this possibility to issue a DAAD for newly certified aerodromes will no longer possible for the CAAs as this is a transitional measure only.

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Link:
https://www.easa.europa.eu/el/faq/19504

ADR.6 Is it planned to have two different certificates, one for the aerodrome operator and one for the aerodrome infrastructure?

Answer

Based on the Basic Regulation and as detailed in ADR.AR.C.035 “Issuance of Certificates” under paragraph (b) in Annex II to Regulation (EC) No 139/2014 both options are possible.

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Link:
https://www.easa.europa.eu/el/faq/19506

ADR.7 What are the so called “standardisation inspections” by EASA of the

competent authorities of the Member States?

Answer

As of 2018 (end of the conversion period), standardisation teams composed out of EASA officers and personnel of competent authorities qualified by EASA, started to conduct aerodrome standardisation inspections. Those standardisation inspections are based on Article 85 of the Basic Regulation and Regulation (EU) No 628/2013 describing the working methods of these standardisation inspections.

According to a risk-based programme for the Aerodromes domain all the Member States and their competent authorities will systematically receive an aerodromes standardisation inspection in order to assess the application of the aerodrome rules. In the context of such a standardisation visit one or more aerodromes in the Member State are visited to better understand the interactions between the authority and the aerodrome operator; and to understand how the certification process and oversight of the aerodromes by the authority is reflected on the aerodrome operators. However, EASA is not raising findings directly against the sampled aerodrome operator(s) and the addressee of the standardisation visit remains the Member State and its competent authority(ies).

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Link:
https://www.easa.europa.eu/el/faq/19508

ADR.8 Safety Management System (SMS) for aerodrome operators: are the EASA rules regarding this area the same as those required by ICAO in Annex 19?

Answer

In line with ICAO Annex 19, the European rules for aerodromes require that aerodrome operators put into place and maintain a management system, which contains a system to manage safety (SMS). This reflects the need to integrate the various sub-systems used for the management of the different activities of an aerodrome organization (e.g. management of aeronautical data and related activities).

The relevant provisions on the management system of aerodrome operators may be found in the management requirements contained in Subpart D of Annex III of Regulation (EU) No 139/2014 (Part ADR.OR), as well as in the related acceptable means of compliance and guidance

material. They reflect the Annex 19 requirements and will be updated in line with updates to Annex 19.

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Link:
https://www.easa.europa.eu/el/faq/19509

ADR.9 What are alternative means of compliance (AltMOC)?

Answer

For all questions regarding alternative means of compliance please consult the following FAQ pages: link

Last updated:
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Link:
https://www.easa.europa.eu/el/faq/19512

ADR.10 Has EASA published design requirements for heliports?

Answer

Yes, following the developments under RMT.0638, EASA published in May 2019 the ED Decision 2019/012/R issuing the Certification Specifications (CS) and Guidance Material (GM) for the design of surface-level VFR heliports located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. These requirements are contained in CS-HPT-DSN: Regulations ADR-Aerodromes

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Link:
https://www.easa.europa.eu/el/faq/19510

ADR.11 The Basic Regulation – BR (Regulation (EU) 2018/1139) contains provisions for the safety-related aerodrome equipment. Where can I find the rules?

Answer

In accordance with Article 35 of the BR, organisations involved in the design, production and maintenance of safety related aerodrome equipment used or intended for the use at aerodromes in the scope may have to either:

(a) declare that the equipment complies with certain specifications; or
(b) hold a certificate for such equipment.

Where the safety-related aerodrome equipment is not covered by either a declaration or a certificate, the aerodrome certificate required under Article 34 will also have to include this equipment.

Once the implementing rules will be adopted, EASA will act as Competent Authority responsible for the certification, oversight and enforcement in accordance with Article 62(2) with respect to the certificates and the declarations.

EASA and its stakeholders need to further assess and decide the optimum approach and concept, followed by the development of proposed rules and procedures. Therefore, the development of these requirements will be performed at a later stage, possibly after 2021. The type of regulatory action will be reflected in the European Plan for Aviation Safety (EPAS), which is consulted with the stakeholders.

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Link:
https://www.easa.europa.eu/el/faq/19511

ADR.12 Is it true that EASA will soon be publishing common rules for groundhandling providers and groundhandling services?

Answer

The new Basic Regulation ((EU) 2018/1139), under its articles 33 and 37, gives the Agency responsibility for the rulemaking for this area. Due to ground safety being also a significant safety issue showing up in safety data, the area has priority over other new responsibilities. The associated rulemaking task is RMT.0728. It was already kicked off in 2018 and is reflected in the EPAS of 2019. The involvement of the relevant stakeholders is, as always, taken very seriously by the Agency.

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Link:
https://www.easa.europa.eu/el/faq/99723

ADR.13 When will the rules for Apron Management Services (AMS) finally come out? Note: ICAO also calls such services Apron Control.

Answer

The requirements for Apron Management Services at aerodromes falling under the scope of Regulation (EU) 2018/1139 have been adopted with Commission Delegated Regulation (EU) 2020/1234. The Regulation will apply as of 20 March 2022.

The relevant AMC and GM can be found in the updated Easy Access to the Rules for Aerodromes.

EASA organized on the 23 November 2021 a webinar on Apron Management Services. The proceedings on the webinar can be found here.

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Link:
https://www.easa.europa.eu/el/faq/99724

ADR.14 Is it correct that Europe has extended powers with respect to the protection of aerodrome surroundings and that this area will be regulated by Europe?

Answer

The Basic Regulation ((EU) 2018/1139) in its article 38 talks about the Member States' and aerodrome operators' obligations with respect to the protection of aerodrome surroundings and the possible European intervention in order to ensure the uniform application of these obligations.

Article 38 states that Member States must ensure that the aerodrome located in their territory are safeguarded against activities and developments in their surroundings, which may cause unacceptable risks to aircraft using the aerodrome. Examples for such activities would be for example those that attract wildlife, while development would be constructions, which represent obstacles in one of the different obstacle limitation surfaces.

The article then goes on to say, that aerodrome operators have the task to monitor the aerodrome surroundings for such activities and developments which may cause risks to aviation in the surroundings of their aerodromes. They then need to take the necessary measures to mitigate those risks in as far as this lies in their control or otherwise bring the risk to the attention of the competent authority of the Member State where the aerodrome is located.

The Commission shall develop implementing acts to ensure the uniform application of the article on the basis of the principle laid out in Art. 4 of the Basic Regulation in order to achieve the objectives laid out in Art. 1, among which the establishment and maintenance of a high uniform level of civil aviation safety in the Union is the most prominent.

However, the development of this task will only start at some point after 2021, due to lack of resources and other priority tasks at this point in time.

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Link:
https://www.easa.europa.eu/el/faq/99725

ADR.15 Is there a transition period by which an aerodrome operator has to comply with new or changed certification specifications (CS) for aerodrome design?

Answer

In accordance with ADR.OR.B.50, the aerodrome operator, following an amendment of the certification specifications, must perform a review to identify any certification specifications, which are applicable to the aerodrome. If relevant, the aerodrome operator needs to initiate a change process in accordance with ADR.OR.B.040, propose an update of the certification basis and implement the necessary changes at the aerodrome.

The competent authority, for its part, shall process the application for changes in accordance with the steps prescribed in ADR.AR.C.040. During this process, a timeline to reach compliance with the new CS shall be prescribed by the competent authority, depending on, amongst other factors, the nature and the significance of the required change.

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Link:

https://www.easa.europa.eu/el/faq/19513

ADR.16 What is the underlying definition of “passengers” in the context of exemptions mentioned under Art. 2(7) of the EASA New Basic Regulation (Regulation (EU) 2018/1139)?

Answer

According to Article 2(7) of Regulation (EU) 2018/1139, a Member State may decide to issue an exemption from the provisions of this regulation and its implementing rules when the aerodrome in question handles no more than 10,000 commercial air transport passengers per year and no more than 850 movements related to cargo operations per year.

The exact term “commercial air transport passengers” is not defined in Regulation (EU) 2018/1139. However, in accordance with Article 3 (24) of the same regulation, commercial air transport is defined as an aircraft operation to transport passengers, cargo or mail for remuneration or other valuable consideration.

Passengers are practically all persons on board an aircraft, who are not crew members. This corresponds with the practice at Eurostat in its 2015 “Reference Manual on Air Transport Statistics”, where the following definition is given: “Air Passenger” any person, excluding on-duty members of the flight and cabin crews, who makes a journey by air. Infants in arms are included.”

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30/05/2018

Link:
https://www.easa.europa.eu/el/faq/20027

ADR.17 The EASA Basic Regulation (EU) 2018/1139 talks in its Art. 2 (1e) about aerodromes “open to public use”. Can you provide a definition about the meaning of this?

Answer

The term “public use” is included in Regulation (EU) 2018/1139 as one of the elements for defining which aerodromes shall comply with this Regulation and consequently will need to be certified in accordance with the requirements and administrative procedures laid down in Commission Regulation (EU) No 139/2014.

In the context of aviation rules, an aerodrome open to public use means that it is generally accessible to use by the public, as opposed to being accessible only to one particular person (for example only the owner) or a restricted group of users.

The Agency's interpretation of the term "open to public use", is that an aerodrome (and heliport) which is open to public use is not necessarily open for all purposes. Its use may be limited to certain operations / types of users and a prior permission/approval may also be required for its use. In any case, a "uniform treatment" of the users of an aerodrome open to public use is always required. This would mean that for example also "PPR" (Prior Permission Required) aerodromes can be open to public use.

Ultimately, the Member States are responsible to ensure effective implementation of the relevant provisions of the Basic Regulation.

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Link:
https://www.easa.europa.eu/el/faq/99722

ADR.18 When is EASA going to implement the new Aircraft Classification Rating – Pavement Classification Rating (ACR–PCR) method?

Answer

In 2020, the International Civil Aviation Organization (ICAO) adopted with Amendment 15 to its Annex 14, Volume I 'Aerodromes — Aerodrome Design and Operations', **a new method for expressing and calculating the bearing strength of a pavement, called the ACR-PCR**. A transition period of 4 years has been set by ICAO, and the new method will become applicable on 28 November 2024, replacing the current Aircraft Classification Number – Pavement Classification Number (ACN–PCN) method.

The applicability of the ACR-PCR method in the European Union Aviation Safety Agency (EASA) Member States has been deferred to a later date, and there is currently ongoing work to transpose the new method in the European Union (EU) regulatory framework.

Following the questions received from stakeholders, EASA has prepared **guidance** to support them in their efforts to implement the new ACR-PCR method. The guidance:

- provides information on the steps and planed time frame for the transposition of the new method in the EU regulatory framework;
- presents recommended actions to the competent authorities, aerodrome operators, and aeronautical information services (AIS) providers to ensure compliance with the new method;

- details the two acceptable methods to determine the PCR values:
  - the technical evaluation method, which represents a study, or
  - ‘using the aircraft experience’ method, which represents a knowledge of the specific type and mass of aircraft being satisfactorily supported under regular use; and
- includes examples for the calculation of the ACR and PCR values.

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Link:
https://www.easa.europa.eu/el/faq/140472

Rescue and Firefighting

Is it required to perform a ‘Task and Resource Analysis’ as referred to in ICAO Airport Service Manual (Doc 9137) and GM2 ADR.OPS.B.010(a)(2)?

Answer

Although the term ‘Task and Resource Analysis’ is used in GM2 ADR.OPS.B.010(a)(2), it should be considered as a generic term not linked to the ICAO Airport Service Manual, Part 1. Therefore, it is neither a certification requirement to conduct a Task and Resource analysis nor an obligation to follow the example in the ICAO documentation.

Regardless, the aerodrome operator is expected to demonstrate to the competent authority the adequacy of the staffing levels. For that, the aerodrome operator may choose any existing or established approach to determine the number of personnel (e.g. adapted from public firefighting services or structural firefighting).

However, the aerodrome operator is expected to develop a transparent approach to determine the minimum number of personnel and equipment for a credible scenario, which might be validated in further scenarios, in accordance with its published rescue and firefighting aerodrome level(s) of protection. In case of reduced aerodrome level of protection during anticipated periods (see AMC2 ADR.OPS.B.010(a)(2)(b)), an additional determination is required with a credible scenario in each of the published levels of protection.

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Link:
https://www.easa.europa.eu/el/faq/140161

What considerations for determining the number of personnel are already given in the regulatory framework?

Answer

Although Regulation (EU) No 139/2014 does not contain specific considerations on the number of required rescue and firefighting services (RFFS) personnel, the existing EU regulatory framework contains different factors that may influence the number of RFFS personnel and should be taken into account. The following four key aspects affecting the number of personnel should be considered:

- **RFFS Level of Protection** (AMC2 ADR.OPS.B.010(a)(2));
- **Core Tasks** as indicated in the scope of RFFS (GM1 ADR.OPS.B.010(a)(1));
- Comparison of **available and required resources** (AMC6 ADR.OPS.B.010(a)(2)); and
- **Human Performance** (AMC6 ADR.OPS.B.010(a)(2)).

However, the determination should always be guided by the question whether an aerodrome operator is confident with its tactics and the associated number of personnel.

GM1 ADR.OPS.B.010(a)(1) specifies that the principal objective […] is to **save lives** […]. The rescue and firefighting service is provided **to create and maintain survivable conditions**, to **provide egress routes** […] and **initiate the rescue of those occupants unable to make their escape without aid**. The rescue may […] **use equipment and personnel other than** those assessed primarily for rescue and firefighting […].

In determining the number of personnel required to provide for rescue and firefighting, a **Task and Resource Analysis** should be performed, taking into consideration the **types of aircraft** […], the available […] **vehicles and equipment** (consider: AMC3 ADR.OPS.B.010(a)(2)), and **other duties** required from RFFS personnel (GM2 ADR.OPS.B.010(a)(2)).

AMC6 ADR.OPS.B.010(a)(2) specifies that the aerodrome operator should ensure that:

- during flight operations […] **sufficient trained personnel** is detailed and readily available to **ride** […] **vehicles**, and to operate **the equipment** […];
- personnel is deployed […] considering also the **use of hand lines, ladders, and other rescue equipment** normally associated with aircraft rescue and firefighting operations; […] and
- any **other duties carried out** […] do not compromise the response […].

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https://www.easa.europa.eu/el/faq/140162

How does the RFFS level of protection influence the minimum number of RFFS personnel?

Answer

The rescue and firefighting services (RFFS) level of protection reflects the size and capacity of aircraft normally using an aerodrome. Hence, it sets the overall frame when determining the number of RFFS personnel. When aligning the number of personnel, it could either reflect the largest aircraft usually scheduled at the aerodrome or the largest type of aircraft within the published RFFS aerodrome category. Furthermore, the number of personnel usually available at an aerodrome should be sufficient to man the available vehicles associated with the RFFS level of protection and operate the equipment deemed to be required by the aerodrome operator at its maximum capacity (c.f. AMC3 ADR.OPS.B.010(a)(2) and AMC6 ADR.OPS.B.010(a)(2)).

In addition to the RFFS level of protection, the potential existence of difficult environments at or near the aerodrome may impact the number of RFFS personnel, as a response to such areas is to be initiated and the effective deployment of rescue equipment for such areas is to be considered.

To determine the minimum number of RFFS personnel, the aerodrome operator should develop a credible scenario in accordance with its published RRFS level(s) of protection.

Possible factors taken into account		**Example Scenario #1**	**Example Scenario #2**
Flight Phase	Landing / Take-Off / Taxiing / On Stand	Landing	On Stand
Prior Alert	Yes / No	No	Yes
Number of Aircraft / Vehicles involved	Aircraft / Ground Service Equipment / Regular Vehicle	1 Aircraft	1 Aircraft
Type of Aircraft	According to Airport RFFS Category or Reference Aircraft	RFFS Aerodrome Category	(Reference) Aircraft Type
Number of Persons on Board	According to Airport RFFS Category or Reference Aircraft	Maximum Capacity of Reference Aircraft	Actual Capacity of Reference Aircraft
Passengers with Reduced Mobility	Yes / No	No	Yes

Quantity of Fuel on Board	Low (e.g., on arrival) / Full (e.g., on departure) / Unknown	Low	Unknown
Dangerous Goods	Yes / No / Types and Quantities	No	No
Location of Accident	Runway / Before or After Threshold / Taxiway / Aprons	Runway	Taxiway
Conditions at Location	Paved / Unpaved / Water or swampy Area	Paved	Unpaved
Weather Conditions	Optimal / Impacting …	Optimal	Optimal
Aircraft Emergency State	Aircraft Accident / Full Emergency / Local Standby	Full Emergency	Aircraft Accident
Fuselage Integrity	OK / Damaged / In Several Parts	Damaged	OK
Access to Fuselage	Normal / Partial / Difficult	Partial	Normal
Emergency Evacuation	< 90 sec / < 5 min / Incomplete	< 5 min	Incomplete
External Emergency Services Arrival	< 10 min / X min / 30 min …	< 30 min	25 min

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Link:

https://www.easa.europa.eu/el/faq/140188

What are the core tasks that should be taken into account when determining the number of personnel for rescue and firefighting?

Answer

The determination of the number of personnel should define and prioritise tasks required to save lives as indicated in GM1 ADR.OPS.B.010 and could include:

1. **Creating survivable conditions:**
    1. manning vehicles after the initial call;
    2. responding to the accident scene;
    3. assessing the accident; and
    4. controlling external fires (mainly by foam tender's turrets).
2. **Maintaining survivable conditions:**

    1. controlling external fires (supported by hand lines); and
    2. monitoring the evacuation process.
3. **Providing egress routes**
    1. assisting the evacuation; and
    2. creating access to fuselage (e.g. with ladders, ground handling stairs or rescue stairs).
4. **Initiating rescue of trapped occupants**
    1. Initiating the egress for occupants (e.g. ventilating or accessing the fuselage); and
    2. transporting of trapped occupants out of the ‘hot zone’.

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https://www.easa.europa.eu/el/faq/140163

How do available resources at an aerodrome influence the number of RFFS personnel?

Answer

The aerodrome operator should not only consider the deployment of available vehicles and equipment but also and foremost their specifications and requirements, in order to deploy the vehicles and equipment effectively. The following technical factors may increase or decrease the number of rescue and firefighting services (RFFS) personnel:

1. **number, types, and seat capacity of vehicles** (cf. AMC3 ADR.OPS.B.010);
2. **number and type of potential rescue equipment** for a response to difficult environments at or adjacent to the aerodrome;
3. **technical configuration and state-of-the-art features** of vehicles and other rescue equipment available at the aerodrome; and
4. human or infrastructural capability of **effective deployment** of required rescue equipment.

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Link:
https://www.easa.europa.eu/el/faq/140164

What role does human performance play in the determination of the number

of personnel?

Answer

Human factors and capabilities play a major role in the overall tactics, and have hence a major impact on the response to an incident. Therefore, the following may increase or decrease the number of personnel:

1. **training and proficiency of RFFS personnel** (e.g. voluntary, part-time, or full-time firefighters);
2. **tasks other than RFFS required by core RFFS personnel, resulting in fatigue** (e.g. domestic firefighting, ground handling, or aerodrome maintenance);
3. **responsibilities and tasks conducted by non-RFFS personnel** (e.g. cabin crew, security personnel, maintenance, or state authorities); and
4. **availability and response time of rescue staff other than the aerodrome's core RFFS personnel to support during an incident** (e.g. civil defence, medical services, or other external services).

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How could the total number of RFFS personnel be calculated based on an incident-related approach?

Answer

If the transparent and documented approach to determine the number of RFFS personnel was based on a scenario, the results could be used to conclude the total number of RFFS personnel by considering the following:

1. **aerodrome infrastructure** (e.g. provision of additional capacities depending on the aerodrome specifics and to intervene at any point of the aerodrome by meeting the response time(s)); however, there is no need to duplicate each position or equipment in such case);
2. **planned absence** (e.g. recurrent training, annual leave, shift factor or shift schemes); and
3. **contingency arrangements to cover unplanned absence** (e.g. sick leave, unplanned events, vehicle breakdown (cf. GM4 ADR.OPS.B.010(a)(e)).

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Is there any further supportive material that could be useful when determining the number of required RFFS personnel?

Answer

Further guidance or considerations to determine the number of required RFFS personnel may be found in the following sources:

- ACI World: Managing Rescue and Firefighting Services at Airports — Handbook
- ICAO: Airport Services Manual, Part 1 — Rescue and Firefighting (Doc 9137)
- adapted procedures from structural firefighting or civil defense;
- contact or consultation with members of the working group for knowledge exchange; and
- any other international or national guidance material on the subject matter.

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AMC5 ADR.OPS.B.010(a)(2), point (a) refers to a response time not exceeding three minutes, and to an operational objective not exceeding two minutes. How should the operational objective be considered in relation to the response time?

Answer

The response time not exceeding three minutes should be considered as a time frame that should be met under optimum visibility and surface conditions.

The operational objective should be considered as a desired target under ideal conditions and understood “as low as reasonably possible and feasible” (considering saving lives as primary objective as well as relevant financial, organisational, technological, and human factors).

Getting as close as possible to the operational objective encompasses the set-up of a continuous improvement process (e.g. training, vehicle management, fire station(s) location and

design, guidance, access roads, procedural amendment(s)).

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https://www.easa.europa.eu/el/faq/140168

What should be understood as expeditiously as possible, should a response time be defined?

Answer

It is acknowledged that a response time should not be set to respond to an emergency in swampy or water areas, as it largely depends on varying local situations and environments. However, guidelines should be provided on the need for rescue entities to ensure timely response, taking into account:

- the local situation;
- specific conditions regarding survivability (e.g. survival in cold water is approximately 10 minutes maximum); and

the importance of providing adequate deployment of appropriate equipment in coordination among these entities.

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https://www.easa.europa.eu/el/faq/140169

AMC5 ADR.OPS.B010(a)(2), point (a) refers to the time of the initial call to the rescue and firefighting services. How should the term ‘initial call’ be understood?

Answer

- ‘Initial call’ means the first sound of the siren in the fire station, the pager’s alarm or any other means of alert notified by air traffic services (ATS) or any other party [or person], indicating an aircraft incident to the rescue and firefighting services.
- Assessment of the response time should take into account the various significant milestones, and in particular any delay in communicating the incident’s location.

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Link:
https://www.easa.europa.eu/el/faq/140170

AMC5 ADR.OPS.B010(a)(2), point (a) refers to the ‘position to apply foam’. How should the term ‘position to apply foam’ be understood?

Answer

As the capabilities of vehicles (e.g, moving and discharge or stop and discharge) and the procedures (e.g. one or two persons) in place at aerodromes vary widely, in such a context:

- To be in a ‘position to apply foam’ means the moment whenever the vehicle(s) is capable to effectively apply at least 50 % of the required discharge rate as per the reported incident’s category.
- The requirement may be considered to be fulfilled as soon as the vehicle(s) reach(es) a location where fire monitors of the vehicle(s) are within the range of where the incident occurred and is/are in a position to effectively apply the extinguishing agents at the specified discharge rate.
- The capabilities of vehicles and procedures in place should be taken into consideration when calculating the response time.

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Link:
https://www.easa.europa.eu/el/faq/140171

AMC5 ADR.OPS.B010(a)(2), point (a) defines that the response time is subject to optimum visibility and surface conditions. What circumstances should be considered as optimum visibility and surface conditions?

Answer

‘Optimum visibility’ includes daytime and good visibility that is not being interfered by any environmental impacts impairing the driver’s view (e.g. precipitation such as rain, snow, or fog).

‘Optimum surface conditions’ means that the normal response route (i.e. the predefined route that is normally available unless there is a temporary maintenance) can be accessed without

delay and is free of any:

- environmental contamination (e.g. no precipitation, water, ice, or snow); or
- unusual or unpredictable obstacles affecting safety and effective response time (e.g. foreign object debris (FOD), traffic obstructing RFFS routing, etc.).

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https://www.easa.europa.eu/el/faq/140172

AMC5 ADR.OPS.B.010(a)(2), points (a) and (b) define that the response time should be achieved to any point of each operational runway and calculated to any part of the movement area. How many measurements/calculations should be conducted to meet the requirement of ‘any point’ or ‘any part’?

Answer

Usually, the response time should be achieved from the fire station(s) to the furthest point of the runway/s. However, if there are objective reasons why another point of the runway/s might be reached earlier or later (e.g. in case of more turns slowing down the vehicle speed), the response time should also be achieved to this point(s).

The same approach based on calculations should apply to any other parts of the movement area than the runway/s. However, as the complexity of the movement area might usually be more diverse, in many cases, more than one calculation might be considered.

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AMC5 ADR.OPS.B.010(a)(2), point (d) refers to guidance material that should be provided to meet the operational objective as nearly as possible in less than optimum visibility. To which response time(s) does that refer to?

Answer

AMC5 ADR.OPS.B.010(a)(2), point (d) aims to ensure an as quick as possible response to an

incident and in less than optimum visibility, as orientation might be difficult. Hence, it refers to the response time of three minutes to any point of each operational runway/s, as per point (a) of the AMC, as well as to the response time to be calculated for any other part of the movement area, as per point (b) of the AMC.

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Link:
https://www.easa.europa.eu/el/faq/140174

Should the term near' be understood as a distance of 1 000 meters, as identified in AMC1 ADR.OPS.B.005(b)?

Answer

The term 'near' used in AMC3 ADR.OPS.B.010(a)(2) should be understood as including at least the 1 000 m referred to in AMC1 ADR.OPS.B.005(b), up to the 8 km referred to in AMC2 ADR.OPS.B.005(b), considering the published approach and departure procedures and the preferential flight routes.

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Link:
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How should the aerodrome operator deduct these areas?

Answer

AMC1 ADR.OPS.B.005 aims that the aerodrome operator should ensure that assessment of the approach and departure areas is carried out which includes also cases when the aerodrome is located near a water/swampy area, or other difficult environment, or a significant portion of the approach/departure operations takes over these areas.

Within the 1 000 m, these areas should be defined considering the 'obstacle limitation surfaces' calculated according to the figures of 'Divergence (each side)' in CS ADR-DSN.J.480, Table J-1. 'Dimensions and slopes of obstacle limitation surfaces — Approach runways', adopting a trapezoidal shape with a 15-% angle for an instrument runway or a 10-% angle for a non-instrument runway.

For a portion of approach or departure operations up to 8 km, these areas should be defined considering the protection envelopes of a published approach or departure procedure.

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What width should be considered to define these areas?

Answer

AMC1 ADR.OPS.B.005 aims that the aerodrome operator should ensure that assessment of the approach and departure areas is carried out which includes also cases when the aerodrome is located near a water/swampy area, or other difficult environment, or a significant portion of the approach/departure operations takes over these areas.

These areas should be defined considering, whenever possible and depending on the type of approach or departure procedure, the width of the runway strip and the published procedures envelope.

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https://www.easa.europa.eu/el/faq/140190

What should be understood as the largest aeroplane normally using the aerodrome?

Answer

Based on AMC2 ADR.OPS.B010(a)(2), the aerodrome operator should consider for providing the minimum of the RFF service, that it needs sufficient equipment taking into account the longest aircraft (or group of aircraft) and their fuselage width based on which the level of protection of the aerodrome has been defined.

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In case off water/swampy areas, what should be considered to ensure an effective or adequate response to an emergency at the distances mentioned in AMC1 ADR.OPS.B.005(b) and AMC2 ADR.OPS.B.005(b)?

Answer

With regard to the 1000-m area from the runway thresholds, the aerodrome operator is required to assess and ensure the intervention capability of dedicated aerodrome services. If needed, according to the local environment, and through the establishment of appropriate cooperation protocols taking due account of national or local legislation, the institutional set-up and entities mission statement, the intervention capability could be ensured by relevant support entities.

With regard to the 8-km grid map and its relevant areas concerning published flight procedures, the aerodrome operator, taking due account of the the national or local situation in terms of the institutional set-up of responsibility for managing and responding to an emergency, should conduct, with the support of relevant national or local entities, an assessment of the area to map entities available in case of an emergency, to identify intervention capability.

Such capability, with the aim to clarify how intervention would be implemented and the available means (i.e. responsibilities considering national or local legislation; type and quantity of equipment and personnel available; dispatch/activation time; other alternatives when response capacity is exhausted or in case there is no immediate response), should be documented and included in the National or Local Emergency Plans (GM1 ADR.OPS.B.005(a)), as well as in the Aerodrome Emergency Plan.

Such assessment should consider the safety management system requirement to coordinate the aerodrome emergency response plan. In that respect, coordination of the aerodrome emergency response plan with the emergency response plans of those organisations it must interface with during the provision of aerodrome services and with the relevant external organisations who have the responsibility to respond to an emergency occurring at an aerodrome or in its surroundings (ADR.OR.D.005) should be ensured.

The assessment of intervention capability should be periodically reviewed, tested, and discussed with all organisations that bear some responsibility in case of an emergency.

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Link:

https://www.easa.europa.eu/el/faq/140178

What considerations for assessing difficult environments are already given in the EU regulatory framework?

Answer

Although the Regulation (EU) No 139/2014 does not contain specific considerations on the assessment of difficult environments at or near an aerodrome as the response to such areas, the existing EU regulatory framework contains aspects that could be used to assess difficult environments and plan the response to such areas in a transparent way:

1. **definition of the area's size** (e.g. AMC1 ADR.OPS.B.005(b), AMC2 ADR.OPS.B.005(b), GM1 ADR.OPS.B.010(a)(1));
2. **availability of support within the area**;
3. **resource management** (e.g. GM3 ADR.OPS.B.010(a)(2), AMC3 ADR.OPS.B.010(a)(2); and
4. **verification**.

For more information, please refer to the following acceptable means of compliance (AMC) and guidance material (GM):

- GM1 ADR.OPS.B.010(a)(1).
- AMC3 ADR.OPS.B.010(a)(2), which states that 'If the aerodrome is located near a **water/swampy area**, or **other difficult environment**, or a significant portion of the approach/departure operations takes over these areas, the aerodrome operator should **coordinate** the availability of suitable rescue equipment'.
- GM3 ADR.OPS.B.010(a)(2), which states that 'Special fire fighting equipment **may not be provided** for water areas; this does not prevent the **provision of such equipment if it would be of practical use**, such as when the areas concerned include reefs or islands. The objective should be to **plan and deploy** the necessary life-saving flotation equipment, as expeditiously as possible, in a number commensurate with the largest aeroplane normally using the aerodrome'.
- AMC1 ADR.OPS.B.005(b), which states that 'The aerodrome operator should ensure that an assessment of the approach and departure areas within 1000 m of the runway threshold is carried out to determine the options available for intervention'.
- AMC2 ADR.OPS.B.005(b), which states that 'A grid map of the aerodrome and its immediate surroundings, approximately at a distance of 8km from the centre of the aerodrome'.

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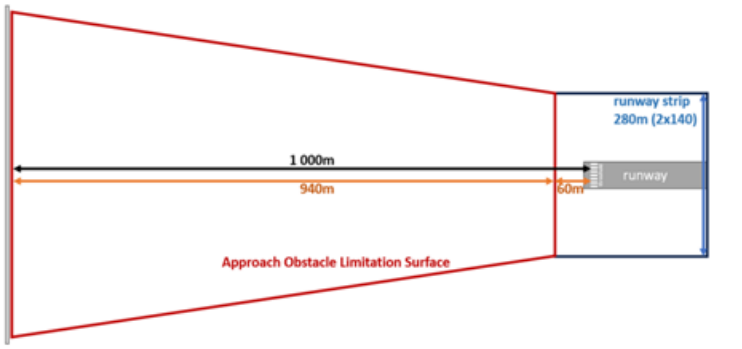
https://www.easa.europa.eu/el/faq/140179

What area should be considered when assessing difficult environments?

Answer

The assessment of potential difficult environments at or near an aerodrome should consider the immediate surroundings of an aerodrome and the established standard flight procedures.

In accordance with point (b) of ADR.OPS.B.005, the assessment of the area at an aerodrome should consider the width of the runway strip and then follow the actual approach obstacle limitation surface up to a distance of 1 000 m beyond the runway's threshold (or, if there is no threshold, the runway end).



In accordance with point (e) of AMC2 ADR.OPS.B.005(b), the assessment near an aerodrome should consider significant portions underneath the standard approach and departure routes within a 8-km radius from the aerodrome reference point.

To determine the size of the area, please refer to the following:

- Table 1 of CS ADR-DSN.A.005 for the aerodrome reference code;
- CS ADR-DSN.A.002 for the runway;
- CS ADR-DSN.A.002 and CS ADR-DSN.B.160 for the runway strip; and
- CS ADR-DSN.A.002 and CS ADR-DSN.H.405 for the obstacle limitation surfaces.

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What response to difficult environments is expected by the aerodrome operator in those areas that are considered as difficult environments?

Answer

Within the 1 000 m area, the aerodrome operator should normally provide intervention capacities and respond to an incident (however, those responsibilities may be limited by local or national legislation defining other responsibilities). Therefore, the aerodrome operator should determine the options available for intervention based on the capacity of its dedicated means or the established intervention protocols with third-party entities in charge. Additionally, activation and engagement procedures in accordance with needs and capacities considering the actual environment should be established.

For other difficult environments within the 8-km radius from the aerodrome reference point, the responsibility to respond remains with the local authorities or entities in charge within the local legal framework of the district where the incident occurred. Although there is no response expected by the aerodrome operator, the aerodrome operator should actively participate in the coordination of resources. This should include:

- the mapping of further entities' location and intervention capacities considering the safety management system requirements; and
- the counselling other responsible entities located in the area in the establishment of protocols to allow for the effective organisation of resources for a rapid intervention.

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Link:
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What resources could be considered when establishing intervention protocols?

Answer

Resources that could be considered to respond to incidents in difficult environments do not need to be limited to aerodrome-owned or RFFS resources. They could rather include any type of aerodrome service that can offer or ensure acceptable level of safety within the defined areas. Other such resources include third-party arrangements with external partners or organisations that can support or facilitate any response, whenever necessary, through knowledge, personnel, or equipment.

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Link:

https://www.easa.europa.eu/el/faq/140182

How could the presence of difficult environments and the response capabilities to difficult environments be verified?

Answer

The presence of difficult environments should be reassessed upon infrastructural changes at or near the aerodrome. The intervention capabilities should be verified during training sessions, familiarisation with difficult environments, or exercises. Any third-party arrangements should be reviewed and updated periodically to ensure high-level of safety.

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Link:

https://www.easa.europa.eu/el/faq/140183