Regulation (EU) 2020/2148

EASA Webinar
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Content & applicability dates of the Regulation

- Aeronautical data: 27.01.22
- Regulation (EU) 2020/2148
- Runway Safety: 08.01.21
- GRF: 12.08.21
Why

Aeronautical data
- ADR operator is data originator
- Alignment with Regulation (EU) 2020/469
- Adoption of Annex 15 and PANS-AIM provisions

GRF
- Reduce the risk of runway excursions
- Compliance with ICAO
- Support global applicability

Runway Safety
- Safety recommendations
- Alignment with ICAO
- Address STD inspection findings
Overview of the new/revised rules

Aeronautical data

Implementing rules

• ADR.OR.D.007 Management of aeronautical data and aeronautical information (revised)
• ADR.OPS.A.010 Data quality requirements (revised)
• ADR.OPS.A.020 Common Reference Systems
• ADR.OPS.A.025 Data error detection and authentication
• ADR.OPS.A.030 Aeronautical data catalogue
• ADR.OPS.A.035 Data validation and verification
• ADR.OPS.A.040 Error handling requirements
• ADR.OPS.A.045 Metadata
• ADR.OPS.A.050 Data transmission
• ADR.OPS.A.055 Tools and software
Overview of the new/revised rules

Global Reporting Format

Implementing rules
• ADR.OPS.A.060 Reporting of surface contaminants
• ADR.OPS.A.065 Reporting of the runway surface conditions
• ADR.OPS.B.036 Operations on specially prepared winter runways
• ADR.OPS.B.037 Assessment of runway surface condition and assignment of runway condition code
Overview of the new/revised rules

Runway Safety

Implementing rules

- ADR.OR.D.017 Training and proficiency check programmes
- ADR.OPS.A.057 Origination of NOTAM
- ADR.OPS.B.003 Handover of activities – provision of operational information
- ADR.OPS.B.010 Rescue and firefighting services (revised)
- ADR.OPS.B.016 Foreign object debris control programme
- ADR.OPS.B.024 Authorisation of vehicle drivers
- ADR.OPS.B.025 Operation of vehicles (deleted)
- ADR.OPS.B.026 Authorisation of vehicles
- ADR.OPS.B.027 Operation of vehicles
- ADR.OPS.B.028 Aircraft towing
- ADR.OPS.B.029 Language proficiency
- ADR.OPS.B.030 Surface movement guidance and control system (revised)
- ADR.OPS.B.031 Communications
- ADR.OPS.B.033 Control of pedestrians
- ADR.OPS.B.035 Operations in winter conditions
- ADR.OPS.B.080 Marking and lighting of vehicles and other mobile objects
- ADR.OPS.C.005 Maintenance – General (revised)
- ADR.OPS.C.007 Maintenance of vehicles
- ADR.OPS.C.010 Maintenance of pavements, other ground surfaces and drainage (revised)
- ADR.OPS.C.015 Maintenance of visual aids and electrical systems (revised)
Aeronautical data

ADR.OR.D.007 Management of aeronautical data and aeronautical information

• Security management system for operational data including restricted access
• Elements of the security management system
  • procedures for data security risk assessment and mitigation, security monitoring and improvement, security reviews and lesson dissemination
  • detection of security breaches and provision of security warnings
  • control of the effect of security breaches and recovery and mitigation measures to prevent reoccurrence
• Security clearance of personnel with respect to aeronautical data security
• Protection from cyber security threats
Aeronautical data

ADR.OPS.A.010 Data quality requirements (revised)

• Formal arrangements with the organisations with which it exchanges aeronautical data or aeronautical information
  • Integrity of aeronautical data
    • Routine
    • Essential
    • Critical
  • Resolution
  • Traceability
  • Timeliness
  • Completeness
  • Format
Aeronautical data

ADR.OPS.A.020 Common reference system
• WGS-84 → horizontal reference system
• MSL datum → vertical reference system
  • EGM-1986 as the global gravity model
  • Other models maybe used provided that
    • Model is described and parameters used for height transformation are included in the AIP
• Gregorian calendar and UTC → temporal reference systems

ADR.OPS.A.025 Data error detection and authentication
• Data error detection techniques during transmission and storage to support data integrity levels
  • Use of CRC
• Suitable authentication process to confirm that the data or information has been transmitted by an authorized source
  • Technical data security measures (secure hashes, secure transmissions, digital signatures
  • Implementation of organisational data security measures to protect processing resources and prevent intentional corruption during processing of data
Aeronautical data

ADR.OPS.A.030 Aeronautical data catalogue
• Connection of aeronautical data with the data catalogue specifications in Regulation (EU) 2017/373

ADR.OPS.A.035 Data validation and verification
• Applies to data origination, processing and transmission to AIS
• Ensure that aeronautical data are received without corruption and the process does not introduce any corruption
• Manually entered data have to be verified independently
• Aeronautical data used to obtain or calculate other aeronautical data, need to be verified
Aeronautical data

Validation and verification

• The process should define the means used to:
  • verify received data and confirm that the data has been received without corruption
  • preserve data quality and ensure that stored data is protected from corruption; and
  • confirm that originated data has not been corrupted prior to being stored

• The process should define the:
  • actions to be taken when data fails a verification or validation check; and
  • tools required for the verification and validation process.
Aeronautical data

ADR.OPS.A.040 Error handling requirements

• Errors identified during data origination and after data delivery, are corrected or resolved
• Priority to critical and essential data

ADR.OPS.A.045 Metadata

• Required information
  • Identification of the organisation
  • Action performed
  • Date and time of the action
Aeronautical data

ADR.OPS.A.050 Data transmission
  • Data transmission is done via electronic means

ADR.OPS.A.055 Tools and software
  • Tools and software used to support or automate aeronautical data process do not adversely impact the quality of aeronautical data
Runway Safety

ADR.OPS.A.057 Origination of NOTAM

- Address the case where ADR operator needs to originate a NOTAM
- Designation of personnel authorized to originate NOTAM
  - Trained and competent
- Based on ICAO Annex 15 par. 5.1 and 5.2
- Complements Regulation (EU) 2020/469
- AMC1 ADR.OPS.A.057(a)(1)
  - Procedure for the issuance of NOTAM
- AMC1 ADR.OPS.A.057 (a)(2);(3)
  - Training requirements
Runway Safety

ADR.OPS.B.003 Handover of activities – provision of operational information

• Between aerodrome personnel involved in the operation and maintenance
• Provision of operational information to organisations operating or providing services at the aerodrome
• When
  • During shift changes
  • From person-to-person
  • Between different departments (e.g. maintenance to operations)
  • Incomplete or non-regular activities
• How
  • Verbally and in writing
  • Specific information for drivers on the manoeuvring area
Runway Safety

ADR.OPS.B.016 FOD control programme

• Implementation of an FOD control programme
  • Participation of organisations providing services or operating at the aerodrome
• Training of personnel
• Prevention measures
• Implementation of procedures
  • Detection of FOD
  • Removal, containment and disposal of FOD
  • Notification of aircraft operators in case of identified aircraft parts
• Collection and analysis of FOD data and implementation of measures to improve the effectiveness of the programme
Runway Safety

ADR.OPS.B.024 Authorisation of vehicle drivers

• Issued by the ADR operator under the following conditions
  • Necessary for the performance of the duties
  • Valid driving license
  • Successful completion of training programme and demonstration of competence
  • Language proficiency if driving on the manoeuvring area

• Training programme
  • Theoretical and practical training
    • Apron and other operational areas
    • Manoeuvring area including radiotelephony

• Validity of driving authorisation
  • Successful completion of training and proficiency checks

• Specific provisions for persons temporarily driving on the movement area

• Establishment of a system of issuing authorisations and monitoring compliance
Runway Safety

Driver Training Programme

**General driving training**
- Driving authorisation framework
- Personal responsibilities
- Vehicle standards
- Aerodrome rules and procedures
- General aerodrome layout
- Hazards of general movement area driving
- Human performance
- Emergency procedures
- Communication
- Practical training

**Manoeuvring area driving training**
- Air traffic services
- Personal responsibilities
- Vehicle standards
- Aerodrome layout
- Hazards of manoeuvring area driving
- Emergency procedures
- Communication
- Aircraft familiarisation
- Practical training
Runway Safety

Radiotelephony training

**Theoretical training**
- Categories of messages
- Use of phonetic alphabet
- Use of standard phraseology
- Use of call sign for aircraft, air traffic services and vehicles
- Read-back procedures
- Test procedures including readability scale
- Transmitting techniques and use of radiotelephony

**Practical training**
- Use of portable and fixed radio
- Can be combined with other training
Runway Safety

ADR.OPS.B.026 Authorisation of vehicles

- **Conditions**
  - Serviceability
  - Compliance with marking and lighting requirements
  - Radio equipped if operating on the manoeuvring area or any other operational area controlled by ATS or required by the ADR operator
  - Fitted with transponder when surveillance is used at the aerodrome and the use of transponder is required

- **Authorisation** shall specify the areas where the vehicle is allowed to operate

- **Assignment of call-sign for radio-equipped vehicles**

- **Exemptions for vehicles without radio and/or transponder**
  - Vehicle is escorted
  - Escorting vehicle complies with marking and lighting requirements
  - LVPs are not in force

- **Specific provisions for temporary entry on the movement area**
  - Visual inspection of the vehicle
  - Escort by authorized vehicle
  - LVPs are not in force

- **Establishment of a system for issuing vehicle authorisations**
Runway Safety

ADR.OPS.B.027 Operation of vehicles
• Driving rules
  • Priorities on the manoeuvring area
  • Use of radio
  • Emergency procedures when in doubt as to the position of the vehicle with respect to the manoeuvring area
• Priorities at the apron
• Escort of vehicles
• Parking of vehicles in designated areas only

ADR.OPS.B.028 Towing of aircraft
• Establishment of procedures and routes
• Appropriate guidance during towing operations
• Lighting of aircraft in accordance with SERA.3215
• Communication with ATS and/or AMS
• Towing in adverse weather conditions or LVP
ADR.OPS.B.029 Language proficiency

- At least at an operational level both in phraseologies and plain language
  - English language and
  - Any other language(s) used at the aerodrome for communication with ATS
- Demonstration through the issuance of a certificate
  - Issued by the organisation conducted the assessment
  - Attesting the language(s)
  - Level of proficiency
  - Date of the assessment
- Re-assessment
  - 4 years from the date of the assessment, for operational level
  - 6 years from the date of the assessment, for the expert level
- Exemption from English language
  - Decision of the Member State following a safety assessment
- Authorisations may be issued without language proficiency
  - Until 7 January 2026 for English language
  - Until 7 January 2023 for any other language
Runway Safety

SAFETY ASSESSMENT WHEN PROFICIENCY IN THE ENGLISH LANGUAGE IS NOT DEMONSTRATED

• The following should be considered
  • Opinion of the Competent Authorities for ADR and ANSPs including results of relevant oversight activities for each aerodrome concerned
  • the opinion of the aerodrome operators and the air navigation services providers concerned, including the results of relevant safety assessments conducted by the organisations concerned in the context of their management systems with regard to runway incursion prevention
  • the opinion of the local runway safety team established at each aerodrome
  • the aerodrome design, and operating conditions of each aerodrome concerned, including the number of frequencies used in the manoeuvring area
  • the traffic structure (national, international) of each individual aerodrome, including seasonal traffic peaks
  • any relevant occurrence reports, at least at EU level. For this purpose, the European Central Repository referred to in Article 8 of Regulation (EU) No 376/2014 should also be consulted;

• The assessment should be made publicly available and should be reviewed regularly
Runway Safety

ADR.OPS.B.030 SMGCS
• Establishment of standard taxi-routes, if necessary
• When transponders are required
  • transponder operating procedures for aircraft operators
  • publication of information in the AIP

ADR.OPS.B.031 Communications
• In accordance with SERA
• Communication procedures
  • Frequencies and language
  • Between ATS and pedestrians
  • Dissemination of significant information using radio
  • Signals and back-up systems to be used in case of communication failures
Runway Safety

ADR.OPS.B.033 Control of pedestrians
- Access to the movement area is limited to those that have a task to perform
- Trained and competent
- Escort of passengers
- Adequate protective clothing (high visibility vests, etc.)
- Communication means and authorisation for the manoeuvring area
- No entry into the manoeuvring area during LVP

ADR.OPS.B.080 Marking and lighting of vehicles and other mobile objects
- Content of the AMC is transferred to implementing rule
- Aircraft servicing equipment operating at the apron maybe exempted
Runway Safety

ADR.OPS.C.007 Maintenance of vehicles
• Rescue and firefighting vehicles
• Other vehicles that operate on the movement area or other operational areas
• Establishment of procedures to support the maintenance programme
• Availability of adequate means and facilities
• Maintenance record keeping
• The ADR operator needs to ensure that other organisations operating at the aerodrome maintain their vehicles and keep records
• Unserviceable vehicles shall not be used in operations

ADR.OPS.C.015 Maintenance of visual aids and electrical systems
• Transfer of CS material to implementing rule without change
Runway Safety

Training and proficiency check programmes

• ADR operator is responsible for
  • Establishment and implementation of the programmes for its personnel
  • Ensure the implementation of the training programme of any other personnel of other organisations

• Types of training
  • Initial, recurrent, refresher and continuation

• Frequency
  • Recurrent → at intervals not exceeding 24 months
  • Refresher → if absent between 3 and 12 consecutive months, beyond 12 months → initial training
  • Continuation → due to changes to the operating environment or tasks

• Proficiency checks
  • Every 24 months except RFFS personnel which is 12 months
Thank you

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