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Occurrence reporting guidance for organisations in aviation

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In April 2016, Switzerland implemented the REGULATION (EU) No 376/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation and the thereto related COMMISSION IMPLEMENTING REGULATION (EU) 2015/1018 of 29 June 2015 laying down a list classifying occurrences in civil aviation to be mandatorily reported according to Regulation (EU) No 376/2014 of the European Parliament and of the Council.

The implementation of the above-mentioned regulation and implementing regulation had a significant impact on the way and extent occurrences have to be reported to the responsible authority. In the past years, FOCA has gained practical experience on how the stakeholder and operators send their occurrence reports. In general, the quality and extent of the reports are satisfactory, however some points and procedures could be further improved. The aim of this guidance is to improve the quality of the reports and to try to reduce the workload on both sides, for the operators and the FOCA. This feedback might also help to answer questions and provide guidance on how to report to the authority on specific issues and what information has to be provided in detail (mandatory information).

Content

GENERAL	2
1.1 Occurrences to be reported	2
1.2 Where have the reports to be sent	
1.3 Reporting Channels and Data Format	3
1.4 Reporting Timeframe	
1.5 Follow-up and Closing Messages	5
1.6 Actual or potential safety risk	
1.7 Additional Information for Reports	
Mandatory Information	
1.8 Common & Specific Mandatory fields	
1.8.1 Common Mandatory Fields	
1.8.2 Specific Mandatory Fields - Aircraft related data fields	
1.8.3 Specific Mandatory Fields - Air navigation services related data fields	
1.8.4 Specific Mandatory Fields - Aerodrome related data fields	
1.8.5 Specific Mandatory Fields - Aircraft damage or personal injury-related data fields	
1.8.6 Specific Information on FOCA request	
1.9 Additional documents & attachments	13
FAQ	
Annex I	14
Annex II	

GENERAL

1.1 Occurrences to be reported

The Commission Implementing Regulation (EU) 2015/1018 of 29 June 2015 laying down a list classifying occurrences in civil aviation to be mandatorily reported according to Regulation (EU) No 376/2014:

ANNEX 1: OCCURRENCES RELATED TO THE OPERATION OF THE AIRCRAFT

ANNEX II: OCCURRENCES RELATED TO TECHNICAL CONDITIONS, MAINTENANCE

AND REPAIR OF THE AIRCRAFT

ANNEX III: OCCURRENCES RELATED TO AIR NAVIGATION SERVICES AND FACILITIES

ANNEX IV: OCCURRENCES RELATED TO AERODROMES AND GROUND SERVICES

ANNEX V: OCCURRENCES RELATED TO AIRCRAFT OTHER THAN COMPLEX MOTOR-

POWERED AIRCRAFT, INCLUDING SAILPLANES AND LIGHTER-THAN-AIR

VEHICLES

Easy Access Rules:

Easy Access Rules for Occurrence Reporting (Regulation (EU) No 376/2014) - Revision from December 2022 | EASA (europa.eu)

Reported events not listed in implementing regulation (EU) 2015/1018 are registered as voluntary occurrence reports.

1.2 Where have the reports to be sent

Organisations are required to report occurrences to their competent authority.

Regulation (EU) No 376/2014 specifies the following reporting channels for persons subject to the MOR obligation (Article 4(6)):

- The mandatory reporting system of the organization which employs them or contracts or uses their services, or
- The mandatory system of the Member State of establishment or of the competent authority of their organization, or by the State which issued, validated or converted the pilot's license or
- The mandatory system of EASA.

Depending on which authority has issued the certificate (AOC, ATO, PO, MO etc.), the competent authority may be different. It may be the FOCA, another NAA or the EASA (e. g. SDM).

Whereas the reporting of occurrences in the EU is overall regulated under Regulation 376/2014, there are also a number of more sectorial occurrence reporting requirements contained in other European Regulations which have to be adhered to as well.

1.3 Reporting Channels and Data Format

According to the Regulation (EU) No 376/2014 there are only two reporting channels to FOCA available. All initial-, follow-up- and final-occurrence reports to FOCA shall be submitted thru one of these channels, other channels will not be accepted:

A. direct reporting to the competent authority using the API of ECCAIRS 2 in an E5X-format (more information can be found on the internet: ECCAIRS 2 Central Hub | Electronic Reporting (aviationreporting.eu).

On request, FOCA makes available a handbook on the development of the API. If you would like to receive the documentation, please contact eccairs2@bazl.admin.ch.

For the process of the implementation of the API, please refer to Annex I.

B. via EASA reporting portal: http://www.aviationreporting.eu

The EASA reporting portal can be used in various ways:

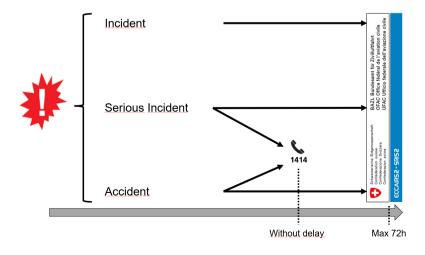
- 1. as an unregistered user (e. g. for voluntary reports)
- 2. as a registered user with a personal account (e. g. for voluntary reports)
- 3. via an organizational account (an organizational account can be applied for at the following address: Organizational Account)

The organizational account is recommended for all stakeholders unless they send their reports to the competent authority via the API using their SMS software (point A).

As a general rule, the internal stakeholder reporting system must be used first and foremost for mandatory reports. Options 1 and 2 above concern voluntary reports, which the reporting person can use if, for example, internal reports have not produced the expected result or if the reporting person fears that the report could lead to problems with their employer.

<u>Remark:</u> We strongly recommend the use of the online form. The offline version via pdf often generates error messages and the pdf files are large and require a lot of disk space.

<u>Attention:</u> accidents and serious incidents acc. ICAO Annex 13 and Regulation (EU) No 996/2010 have to be reported without delay to the Swiss Transportation Safety Investigation Board (STSB) via Swiss Air Ambulance Tel. 1414 (acc. Switzerland AIP ENR 1.14) <u>and</u> via regular 376-reporting channel to FOCA.



1.4 Reporting Timeframe

The diagram below illustrates the general flow of information, main deadlines and stages of the reporting.

The reporting flow starts from the moment a reportable event is identified. The individual shall report it to the organisation as soon as possible, but no later than 72 hours. The organisation has 72 hours to report to the authority (FOCA) from the moment they become aware of the occurrence and the event is classified as reportable. In cases where an organisation learns about an occurrence through its automatic data capturing systems (e. g. FDM) and if it has requested a retrospective report to be made, the 72 hours starts when it receives the retrospective report from the reporter.

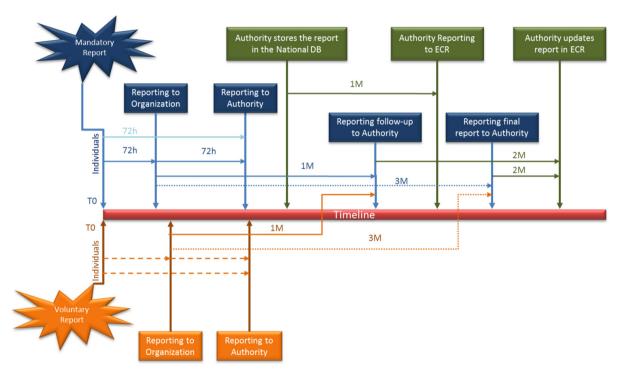


Figure 1: Ref. EASA Gudance Material – Version 1 (December 2015)

1.5 Follow-up and Closing Messages

The analysis and follow-up of incidents is based on Art. 13, paragraphs 1 to 4 (respectively 5) of EU Regulation 376/2014. Where FOCA or an organisation in Switzerland identifies an <u>actual or potential aviation safety risk</u> (see next chapter) as a result of its analysis of occurrences, it shall transmit to the FOCA a **follow-up report** within 30 days from the date of notification of the occurrence by the reporter. This follow-up report shall contain the current status and results of the investigation, corrective/preventive actions if already known and an updated risk classification:

- A. the preliminary results of the analysis performed
 - a. Analysis/follow-up (root cause analysis) (ID 1067)
 - b. Risk Assessment (ID1068)
 - c. Investigation report as file attachment (if applicable)

and

- B. any action to be taken
 - a. Conclusions (ID1070)
 - b. Risk Mitigation Actions (corrective and preventive actions) (ID1069)

and

- C. the updated or final risk classification
 - a. Risk classification (ID1065)
 - b. Risk methodology (ID1066)

The organisation shall **report the final result** of the analysis, where required, as soon as they are available and, in principle, no later than <u>90 days</u> from the date of notification of the occurrence. The final report shall contain the definitive updates of the same data fields for the above-mentioned follow-up reports as well as the root cause analysis, investigation reports and all necessary information to enable a proper understanding and assessment of the occurrence.

The mandatory data field "Risk classification" (ID1065) triggers the follow up process. If the organisation classifies an occurrence as "Major", "Serious Incident" or "Accident" in accordance with their "Risk methodology" (ID1066) (the terminology may vary depending on the method used), an automatic follow up and final report is expected. It is also expected that the fields mentioned under A., B. and C. will be provided with the relevant information in the follow-up or final report, depending on the status of the investigation and analysis.

Whereas Regulation 376/2014 only requires organisations to transfer to their competent authority analysis results and follow-up information for certain occurrences (those which may involve an actual or potential aviation safety risk), it allows a competent authority to require the transfer of analysis and follow-up information related to all reportable occurrences.

FOCA is reviewing the occurrence severity classification of the organisation. In case of disagreement, FOCA will request a follow up and final report in line with chapter 1.4, independently from the operators original determination of the severity level.

1.6 Actual or potential safety risk

The EU leaves the definition of an "actual or potential aviation safety risk" to the national authority. The FOCA, therefore, defined what is to be understood under this term. The guideline should support the responsible reporting organisations to determine to which events the FOCA expects an automatic follow up and final report:

ACTUAL OR POTENTIAL AVIATION SAFETY RISK

Occurrences fulfilling the below criteria shall be classified as "actual or potential aviation safety risk", requiring a follow- up (preliminary analysis and action taken) and final report:

- 1. Any occurrence, which has resulted (actual) in:
 - 1.1. An Accident 1,2, or;
 - 1.2. A Serious Incident 1,2

or

2. Any occurrence, of which the **SAFETY RISK SEVERITY LEVEL**³ is classified as MAJOR according ICAO DOC 9859 – Safety Management Manual (SMM) or as CAT B according ESARR 2 – Eurocontrol Safety Regulatory Requirement or **above** (**potential** to lead to an Accident or a Serious Incident).

References

¹ For the definition of the term, refer to Regulation EU No 996/2010 - Investigation and prevention of accidents and incidents in civil aviation, respectively ICAO Annex 13

² These follow-up and final reports have to be sent to both, Civil Aviation Authority (CAA) and Air Accidents Investigation Branch (AAIB)

³ For the definition of the Safety Risk Severity Level, refer to ICAO DOC 9859 - Safety Management Manual (SMM), ESARR 2 - Eurocontrol Safety Regulatory Requirement and ICAO Doc 4444 – Air Traffic Management

It is understood that organisations shall discuss with their competent authorities to determine what types of occurrences are considered involving an actual or potential aviation safety risk compared to their own risk classification definition. A correlation matrix would clarify the correct application and has to be considered.

1.7 Additional Information for Reports

If an organization receives additional information from its employees about an incident already reported to the FOCA that is essential for the analysis of the incident and its follow-up, this must be reported to the FOCA as a follow-up or final report.

Mandatory Information

1.8 Common & Specific Mandatory fields

Occurrence reports **shall contain at least** the information listed in Reg. EU No 376/2014 - Annex I and organisations shall establish data quality checking processes to improve data consistency. The data fields must be completed with the information requested. If it is not possible to include that information because it has not been provided by the reporter, the data field may be completed with the value 'unknown'. However, with a view to ensuring that the appropriate information is transmitted, use of that 'unknown' value should, to the best extent possible, be avoided, and the report should, where possible, be completed with the information.

Additional domain specific data fields may be submitted by the reporting organisation for the more in depth analysis or better understanding of occurrences. These additional specific data fields are subject to agreement between FOCA and (specific) organisations.

The FOCA reserves the right to contact the reporter in certain cases if the information is incomplete or unclear. This procedure is solely for the sake of data quality and consistency.

Organisations must ensure that occurrence reports recorded in their databases **contain at least** the following information (Annex I of Reg. EU (No) 376/2014):

1.8.1 Common Mandatory Fields

All mandatory fields are listed in the Annex I of the regulation (EU) 376/2014 (refer also to the reduced interface taxonomy (RIT) if applicable). These fields should not be left empty. If information is not applicable or not available, please enter e. g. **«unknown»** or other relevant value e. g. **«not applicable»**. Empty fields affect the analysis of incidents and generate extra work during the process of the occurrence reports at FOCA and we additionally have to come back to you in certain cases. At **least** the following information have to be included on every occurrence mandatorily reported to FOCA:

Taxonomy Title	ID#	Definition / Descriptions	Note / Examples		
Headline	Headline				
Headline	601	A short message identifying the event	e.g. hard landing / birdstrike-no dam- age / level bust /		
Filing Information					
Responsible Entity	453	The identification of the type of entity or organisation that is responsible for the occurrence record. (e. g. FOCA)	Switzerland FOCA		
File Number	452	The file number allocated by the responsible entity.	not to be filled out by industry (!)		
Occurrence Status	455	The present status of the occurrence, e. g. open, initial notification, preliminary or closed.	not to be filled out by industry (!) (default: closed)		
When					
UTC Date	477	UTC date of the occurrence	DD.MM.YYYY		
Where	Where				
State/Area of Occurrence	454	The identification of the State or geo- graphical area where the occurrence oc- curred	Europe and North Atlantic Switzerland (country name has to be included !)		
Location of Occurrence	440	Location of occurrence should be the name of the closest settled area or geographical feature.	Use ICAO code: - LSZH, LSGG, etc. - Near XYCV - En route		

Classification			
Occurrence Category	430	The occurrence categories as developed by CAST/ICAO Common Taxonomy Team (CICTT). Commercial Aviation Safety Team [CAST] and International Civil Aviation Organization" [ICAO].	Choose any identifier from the given list.
Reporters' language and de	scription of	f the incident	
Reporter's Language	1091	The language used by the originator of the narrative.	e.g. German, English, French, Italiar
Reporter's description	1092	The text of the narrative entered by the reporter of the occurrence.	Explain the Event in a few sentences
Events			
Event Type	390	The type of event, i. e. Consequential Events, Equipment, Operational, Person- nel, Organizational or Unknown	Usually coded by FOCA
Risk Classification			
Risk Classification	1065	Internal risk classification of the reporting organisation	Result of the company own risk classification.
Risk methodology	1066	Internal risk classification methodology used by the reporting organisation	e. g. ARMS, ERC etc.
Classification fields			
Analysis / Follow up	1067	Details on the analysis development and follow up.	Description of the analysis and follow up.
Corrective actions	1069	Details on the actions proposed/done	Description of the actions pro- posed/done
Conclusions	1070	Details on the conclusions for the organisation	Description of conclusions, actions, measures

1.8.2 Specific Mandatory Fields - Aircraft related data fields

The set of common mandatory data fields included in Annex I.1. of REGULATION (EU) No 376/2014 is required to be provided for each reportable occurrence.

The set of specific mandatory data fields included in Annex I.2 is required to be provided only for certain specific occurrences e. g. occurrences for which that data is relevant.

The objective is to ensure that data necessary to the proper understanding of the occurrence is provided.

At least the following information have to be included on every occurrence mandatorily reported to FOCA:

Taxonomy Title	ID#	Definition/Description	Example		
Aircraft Identification	Aircraft Identification				
State of Registry	281	State of Registry. The State on whose register the aircraft is entered.	e.g.Switzerland		
Make/Model/Series	21	The name of the aircraft manufacturer and model	Airbus A320-251N (to the lowest pos- sible level)		
Aircraft serial number	254	The serial number of the aircraft	12345		
Aircraft Registration	244	The mark used to identify an aircraft. The mark consists of a common mark or nationality mark followed by a registration mark.	HB-XXX N-74XXA, etc.		
Call sign	54	The assigned International Telecommuni cations Union radio call sign of the air- craft.	AB1234		
Aircraft Operation					
Operator	215	The name of the aircraft operator exercis ing operational control over the flight (this should be entered for airline operations)			
Type of operation	214	The type of operation indicates whether this was a public transport operation (airline operation) or a general aviation flight	Commercial Air Transport - Passenger; Airline - etc. Illegal Nationally Regulated Operations Non-Commercial Operations Not Applicable Specialised Operations (Aerial Work) Unknown (to the lowest possible level)		

Aircraft Description			
Aircraft Category	32	Aircraft category. Classification of aircraft according to specified basic characteristics, e. g. aeroplane, helicopter, glider, free balloon. ICAO Annex 1.	Fixed Wing - Aeroplane Rotorcraft - Helicopter Etc.
Propulsion Type	232	The type of propulsion system used by this aircraft, e. g. reciprocating engine or turbo-fan engine.	Turbofan, Turboprop, Turboshaft, re- ciprocating, etc.
Mass Group	319	The mass group of the aircraft based on the maximum certificated take-off mass.	Fixed Wing - 0 – 2250kg, etc. Rotorcraft – 0 – 2250kg, etc. etc.
History of Flight			
Last Departure Point	167	The aerodrome or place from which the flight originated.	Use ICAO code of aerodrome
Planned Destination	228	The place of intended landing.	Use ICAO code of aerodrome
Flight Phase	121	Enter the most significant phase of flight related to the occurrence.	Take off, En route, Approach, Landing, etc.
Weather			
Weatherrelevant	606	An indication whether, in the view of the investigation, the weather was relevant to the occurrence.	YES NO

1.8.3 Specific Mandatory Fields - Air navigation services related data fields

At least the following information have to be included on every occurrence mandatorily reported to FOCA:

Taxonomy Title	ID#	Definition/Description	Example
ATM relation			
ATM contribution	428	Information on whether and to what extent, in the judgement of the investigators, the air traffic management contributed to the occurrence.	Directly involved Indirectly involved
Effect on ATM service (Service affected)	436	The classification of the event based on the effect it had on the air traffic management service.	e.g. degraded ATM service if radar not available or traffic rate reductions put in place
ATS Unit Name			
ATS Unit Name	372	The name of the ATS unit.	Normally 4-letter ICAO abbreviation of the appropriate airport, except for Zurich -> ZRH, Geneva -> GVA and Berne -> BRN

Separation Minima Infringement/AIRPROX and Airspace Infringement-related data fields (for ANS providers):

Taxonomy Title	ID#	Definition/Description	Example
Airspace			
Airspace type	15	The type of the airspace according publication in the Aeronautical Information Publication AIP Switzerland.	Danger Area, CTR, CTA, etc.
Airspace class	13	Air traffic services airspaces. ICAO Annex 11.	C, D, E, G
FIR/UIR name	16	Flight Information Region - name or Up- per flight information region - name	LSAS

1.8.4 Specific Mandatory Fields - Aerodrome related data fields

At least the following information have to be included on every occurrence mandatorily reported to FOCA:

Taxonomy Title	ID#	Definition/Description	Example
Location			
Location Indicator (ICAO indicator of the airport)	5	Location indicator. A four-letter code group formulated in accordance with rules prescribed by ICAO and assigned to the location of an aeronautical fixed station.	LSZH
Location on the aerodrome	641	The specific location of the occurrence on the aerodrome or an indication that the occurrence occurred near the aerodrome. "Near" is meant to indicate that the occurrence occurred off the aerodrome but within 10 km from the aerodrome reference point.	Aircraft stand, etc.

1.8.5 Specific Mandatory Fields - Aircraft damage or personal injury-related data fields

At least the following information have to be included on every occurrence mandatorily reported to FOCA:

Taxonomy Title	ID#	Definition	Example
Severity			
Highest Damage	432	the highest level of damage sustained by any aircraft involved in the occurrence	Unknown, none, minor, substantial, destroyed
Injury Level	451	The highest level of injury sustained by any person in the occurrence.	Unknown, none, minor, serious, fatal
Injuries to persons			
Number of injuries on ground (fatal, serious, minor)	460, 472, 469	The total number of persons on the ground that sustained any injury in the occurrence.	Add number(s)
Number of injuries on aircraft (fatal, serious, minor)	459, 471, 468	The total number of persons with minor injuries on board the aircraft involved in the occurrence.	Add number(s)

1.8.6 Specific Information on FOCA request

The following information are requested in addition to the mandatory and specific mandatory fields in order to improve data quality and follow / tracking on the reports.

Any additional domain specific data fields available in the reporters DB may be submitted by the reporting organisation for the more in-depth analysis or better understanding of occurrences. These additional specific data fields are subject to agreement between FOCA and (specific) organisations.

Taxonomy Title	ID#	Definition	Example		
Factual Information	Factual Information				
Reporting entity	447	The identification of the entity or organisation that provided the report.	Switzerland – Other: Aircraft Operator, ANS, CAMO, etc. Operator XYZ		
Report identification	438	The identifying file reference of the report, allocated by the responsible entity.	File number used company internal for tracking and follow up. For follow up messages always use the same reference number as the initial report.		
Report source	476	The source of the report, e.g. from inves- tigations, voluntary reporting, media re- ports etc.	Use only: - Reportable incident - Voluntary occurrence report		
Report status	800	Report status	Use only: - initial notification (only if follow up expected) - closed on issue - open (only forfollow ups) - closed (only if follow up was sent)		
Reporting date	801	Reporting date	Insert only the actual date when initial- or follow up report sent to FOCA		
Dangerous Goods					
DG involved	129	Dangerous goods involved	- Yes - No - Unknown		
Dangerous Goods	688	Dangerous good (Class number and UN number)	3 – Flammable Liquids 1223 - Kerosene		
Shippername	1053	Shippername	For DG not declared only		
Bird/Wildlife strike					
Parts struck	644	The parts of the aircraft struck by the bird strike (but not necessarily damaged)	Radome, Windshield, Nose, Engine, Propeller, Wing, Rotor, Fuselage, Landing Gear, Tail, Lights, Other		
Birds/wildlife seen	646	The estimated number of birds or wildlife seen.	1, 2-10, 11-100, More, Unknown		
Bird size	648	The estimated size of the bird	Small, Medium, Large, Unknown		
Pilot advised of birds	649	Pilot advised of the presence of birds.	Yes, No, Unknown		
Parts damaged	643	The parts of the aircraft damaged by the bird strike	Radome, Windshield, Nose, Engine, Propeller, Wing, Rotor, Fuselage, Landing Gear, Tail, Lights, Other		
Bird/wildlife struck	647	The estimated number of birds/wildlife that struck the aircraft.	1, 2-10, 11-100, More, Unknown		
Species description	645	Generally, the species of birds / wildlife that were involved in the occurrence. Note: Non-bird entries (mammal, reptile) are also included there.	List of species		

Note:

we have agreements with some operators in regards to some additional fields they are asked to provide FOCA with information to enable proper data analysis. These agreements <u>remain unchanged</u>.

1.9 Additional documents & attachments

If you have additional available documents to an occurrence report, do not forget to send them along with your report.

Protection of information on the reporter or other persons mentioned in the report

The Regulation 376/2014 prohibits competent authorities to record personal details (e. g. name of the reporter or anyone else mentioned in the report, addresses of natural persons) in their national database (Article 16(1), (2) and (3) and Recital 35).

To support this requirement, organisations shall not include names and personal details when transferring occurrence reports to the competent authority.

FAQ

Please address your questions in regards to the occurrence reporting to eccairs 2@bazl.admin.ch.

You may find detailed guidance material issued by the <u>European Commission on the implementation</u> of this regulation.

Easy Access Rules for Occurrence Reporting (Regulation (EU) No 376/2014) - Revision from December 2022 | EASA (europa.eu)

Ittigen, September 2024 / FOCA – SRM office

Annex I

Process with FOCA for the implementation of the API of ECCAIRS 2:

Information required from companies M2M account: Email address of the interface user, fixed IP addresses Admin account: Last and first name, e-mail

Procedure

- 1. software manufacturer/developer contacts the organization that wants the interface with E2
- 2. organization contacts the FOCA with details of which developer they have and which software they use.
- 3. if the developer is new or has not yet developed an interface for E2, the FOCA opens a ticket with EASA with the request to give the developer access to the sandbox environment. The developer can then use this to develop the interface. EASA also provides support (technical contact) for the developer.
- 4 As soon as the developer is ready or the organization uses software that has already implemented the interface, FOCA opens an account on the UAT (User Approval Test) environment.
- 5 The organization sends test data to the UAT environment, which is accepted by the FOCA.
- 6. if the data on the UAT environment is correct, the FOCA opens the M2M account on the production environment.

Annex II

Links:

- Easy Access Rules for Occurrence Reporting (Regulation (EU) No 376/2014) Revision from December 2022 | EASA (europa.eu)
- Implementing Regulation (EU) 2015/1018
- Information about E5X file format ECCAIRS 2 Central Hub | Electronic Reporting (aviationreporting.eu).
- Reporting Portal http://www.aviationreporting.eu