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Editorial remark:

Text displayed in square brackets, in italics, and highlighted in grey (*[italics]*) serves as guidance material for the RO and shall be deleted before publication.

Text displayed in roman and highlighted in grey (**text**) shall be replaced by the Rulemaking Officer. New text shall be: font: Verdana; font size: 10; typeface: roman; highlight: none.

If any of the tick boxes do not work, please try one of the following:

- Switch off 'design-mode' (see 'control toolbox' toolbar)
- Allow macros to be executed
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Preliminary Regulatory Impact Assessment

Proposal title	Please insert the title of the proposal. The title should be formulating the issue to be addressed, not a potential solution to it.			
Type of stakeholders affected	<input type="checkbox"/>	Design Organisations	<input type="checkbox"/>	Production Organisations
	<input type="checkbox"/>	Maintenance Organisations	<input checked="" type="checkbox"/>	Training Organisations
	<input type="checkbox"/>	ATM/ANS functions or operators	<input type="checkbox"/>	Aerodrome Operators
	<input checked="" type="checkbox"/>	Air Operators		
	<input type="checkbox"/>	Aero-medical Centres/Examiners		
	<input type="checkbox"/>	Personnel/Licence and certificate holders	Please specify: ...	
Authorities affected	<input checked="" type="checkbox"/>	EASA NAAs	<input checked="" type="checkbox"/>	EASA
Third Countries affected	<input type="checkbox"/>	If yes, please specify: ...		
Version No	0.1		Date	xx/xx/2011
Driver/origin of the task	Safety, Legal Requirements		Reference: ICAO Annex 6, Annex 1	

Affected rules & codes (please tick the ones affected):

Airworthiness		Environmental	FCL	OPS (cont.)
<input type="checkbox"/> AMC 20	<input type="checkbox"/> CS-34	<input type="checkbox"/> CS-34	<input type="checkbox"/> Part-FCL	<input type="checkbox"/> Part-ORO
<input type="checkbox"/> Part-21	<input type="checkbox"/> CS-36	<input type="checkbox"/> CS-36	<input type="checkbox"/> Part-FCL AMC/GM	<input type="checkbox"/> Part-ORO AMC/GM
<input type="checkbox"/> Part-21 AMC/GM	<input type="checkbox"/> CS-30H		<input type="checkbox"/> Part-MED	<input type="checkbox"/> CS-FSTD(A)
<input type="checkbox"/> Part-M	<input type="checkbox"/> CS-31HA	ATM / ANS	<input type="checkbox"/> Part-MED AMC/GM	<input type="checkbox"/> CS-FSTD(H)
<input type="checkbox"/> Part-M AMC/GM	<input type="checkbox"/> CS-31HB	<input type="checkbox"/> ATCO (IR)	<input type="checkbox"/> Part-CC	<input type="checkbox"/> Part-SPA
<input type="checkbox"/> Part-145	<input type="checkbox"/> CS-31GB	<input type="checkbox"/> Part-ACAS	<input type="checkbox"/> Part-CC AMC/GM	<input type="checkbox"/> Part-SPA AMC/GM
<input type="checkbox"/> Part-145 AMC/GM	<input type="checkbox"/> CS-31TGB	<input type="checkbox"/> Part-ACAS AMC/GM	<input type="checkbox"/> Part-ORA	<input type="checkbox"/> Part-SPO
<input type="checkbox"/> Part-66	<input type="checkbox"/> CS-ACNS	<input type="checkbox"/> CR ANSP (IR)	<input type="checkbox"/> Part-ORA AMC/GM	<input type="checkbox"/> Part-SPO AMC/GM
<input type="checkbox"/> Part-66 AMC/GM	<input type="checkbox"/> CS-APU	<input type="checkbox"/> SO ATM/ANS (IR)	<input type="checkbox"/> Part-ARA	<input type="checkbox"/> Part-NCC
<input type="checkbox"/> Part-147	<input type="checkbox"/> CS-AWO	<input type="checkbox"/> Part-ATS	<input type="checkbox"/> Part-ARA AMC/GM	<input type="checkbox"/> Part-NCC AMC/GM
<input type="checkbox"/> Part-147 AMC/GM	<input type="checkbox"/> CS-E	<input type="checkbox"/> Part-MET		<input type="checkbox"/> Part NCO
<input type="checkbox"/> CS-22	<input type="checkbox"/> CS-ETSO	<input type="checkbox"/> SERA (IR)	OPS	<input type="checkbox"/> Part-NCO AMC/GM
<input type="checkbox"/> CS-23	<input type="checkbox"/> CS-Definitions	ADR	<input type="checkbox"/> Part-CAT	<input type="checkbox"/> Annex I Definitions
<input type="checkbox"/> CS-25	<input type="checkbox"/> CS-LSA	<input type="checkbox"/> ADR (IR)	<input type="checkbox"/> Part-CAT AMC/GM	<input type="checkbox"/> Part-TCO
<input type="checkbox"/> CS-26	<input type="checkbox"/> CS-MMEL	<input type="checkbox"/> ADR AMC/GM	<input checked="" type="checkbox"/> Part-ORO	<input type="checkbox"/> Part-TCO AMC/GM
<input type="checkbox"/> CS-27	<input type="checkbox"/> CS-P	<input type="checkbox"/> ADR-OPS (IR)	<input checked="" type="checkbox"/> Part-ORO AMC/GM	<input type="checkbox"/> Part-ART
<input type="checkbox"/> CS-29	<input type="checkbox"/> CS-VLA	<input type="checkbox"/> ADR-OPS AMC/GM	<input type="checkbox"/> Part-ARO	<input type="checkbox"/> Part-ART AMC/GM



<input type="checkbox"/>	CS-VLR	<input type="checkbox"/>	CS-ADR	<input type="checkbox"/>	Part-ARO AMC/GM	
<input type="checkbox"/>	Other	<input type="text" value="[Please specify]"/>				



1 Introduction

The purpose of this document is to give guidance on two critical questions regarding the rule-making proposal:

- Is rule-making necessary? Or should the issue better be addressed by other means (e.g. research, awareness-raising campaigns, etc.)?
- If rule-making is recommended, what should be the priority of this proposal?

The answer to these questions will be based on the issue analysis in section 2 and the baseline assessment in section 3 below. Section 5 discusses if rule-making is required and which options are available.

2 Issue analysis and preliminary safety risk assessment

2.1 What is the issue and the current regulatory framework?

The issue is the lack of European standard qualifications requirement for Flight Operations Officer (FOO) and the negative influence of flight safety. Additionally, the given rules in Europe in this matter are not in line with the ICAO Annex 6 and Annex 1.

With the actual development in Operations Control, Flight Preparation and Inflight Monitoring and the increased complexity in this field, the demand of adequate FOO qualification standards to flight safety is increasing. During normal and abnormal operational situations the AOC-holder must perform continuous risk analysis and pre-cautionary decision making including flight planning and inflight monitoring processes. This risk management is part of the operational control system (Reference to Annex I to EC965/2012 (88)) and should be performed by personnel with minimum standard qualifications, otherwise the risk of the operation as a whole will increase, which then will affect flight safety.

In the complex and dynamic environment of airline operation all safety related aspects must be integrated into operational decision making, pre-flight or in-flight. Even if in-flight, the final decision rests with the PIC. The cockpit crew must rely on the support and advice from the Operations Control Centre. The majority of operational control tasks have to be performed as pre-flight situation when there is no PIC available – otherwise a pre-active and pre-cautionary decision making in Operational Control would be not realistic.

The certification of Air Operator based on the responsibility, procedures and the qualification requirements is noted in the Operation Manuals (OM A-D) of the individual operator. Most of the operators in Europe do not document clear descriptions of the FOO-qualification requirements in their OM's. There are no standards defined in Regulation 965/2012 ORO.GEN.110 which is not in line with the ICAO Annexes 6 and 1.

Even if some countries (Germany, Denmark, Norway, Sweden,...) implemented qualification standards according to ICAO Doc 7192, the overall European situation is still insufficient.

In ICAO Annex 6, chapter 10.3 (see below) the general FOO qualification requirements are described, ie. ...demonstrated...in the contents of the operations manual....

Using this as an example, general qualification requirements should be explained in more detailed learning objectives, which will lead to a more precise picture of the targets in each different training subject, like Navigation, Meteorology, Human Factors, Performance etc.



References:

ICAO Annex 6 Operation of Aircraft, Annex 6, Part I, and Part III, Section II.

Chapter 3 General

ICAO Annex 6 Operation of Aircraft, Annex 6, Part I, and Part III, Section II.

Chapter 4 Flight Operations

Subchapter 4.6 Duties of flight operations officer/flight dispatcher

ICAO Annex 6 Operation of Aircraft, Annex 6, Part I, and Part III, Section II.

CHAPTER 10. FLIGHT OPERATIONS OFFICER/FLIGHT DISPATCHER

2.2 Who is affected?

The affected stakeholder, the individual situation and the expected improvement :

1. AO's already having implemented a system of Operational Control in accordance with their OM-A. These stakeholders cannot rely on legal certainty in different EU-countries due to the lack of harmonized training and qualification standards in direct contradiction to ICAO-standards, Improvement: The AOC-holder can easily adopt a given minimum-standard instead of investing in individual developments.
2. AO's without a system of Operational Control. With the increasing importance of Operational Control in commercial aviation AO's willing to implement an appropriate system to support safety related and economically relevant processes.
3. Training-Organisations (i.e. ATO's) without clear regulations and guidelines to manage the demand of structured FOO training concepts.
Improvement: Training Organisations (i.e. ATO's) can easily adopt the learning objectives to prepare a FOO-Training concept based on a modified (reduced) ATPL-Theory and in co-operation with AOC-holder for the practical training.
4. Applicants for respective training measures due to missing training and qualification standards and thus missing quality control systems.
5. Cockpit Crews having to rely on support from dispatch staff due to shortened check-in and turnaround times without knowing anything about the knowledge level of those preparing flight documentations. Furthermore Cockpit Crews can suffer from the lack of knowledge about the extend qualified dispatcher can support them inflight in case of distress or emergencies by supporting decision making,



6. With the increasing economic pressure on the airline industry all processes are streamlined to increase cost efficiency and a system of Operational Control is more and more be seen as a perfect tool to support this development. Thus the personnel working in this system are being confronted with an sharply increasing spectrum of tasks they have to manage, requiring specialized knowledge and skills. If this everyday reality is been taken seriously by the regulating authority, a clear guideline for qualification and training standards for those involved is inevitable. Thus even the regulating authority is clearly affected.

2.3 What are the safety risks (probability and severity)?¹

Besides the general awareness of the factors influencing flight safety, the personnel involved in Operational Control must be qualified to handle at least the Standard Operating Procedures (SOP's) and data provided with the OM parts A-D. If the Operations Control System will run continuously with insufficient qualification level, the OM-related SOP's can't be used by the staff involved. Without the basic qualification any risk management or safety strategy of the organisation will be not successful

The daily risk management (pre-active Operations Control) will help to identify operational risks for the next hours and days of operation. Without the competence to perform standard and non-standard risk analysis, the operative conditions leading to critical safety related situations are beyond the operators' active control.

The following factors of influence shall be part of the continuous risk analysis of the Operational Control System:

- Evaluation of all official (NOTAMS) and unofficial messages concerning flight safety.
- Observation of all flights en route and the identification of the specific risks and the best course of action.
- Weather forecasts, trends and the resulting risk to flight operations.
- Available and acceptable approach procedure/categories in use at all destination- and alternate airports within the network, including the respective operating minima.
- Evaluation of wide area weather conditions and their specific operational risks (tropical storm, blizzard, volcanic ash).
- Technical condition of all aircrafts influencing the allowed operational criteria, the planned aircraft rotation and the maintenance program.
- All factors influencing the aircraft's performance and the flight planning process.
- Flight crew duty hours and rest time's requirements.
- Human factors influencing the Flight Crew performance during difficult and complex operational conditions.
- Fuel supply/tankering procedures respecting the approved options available from the operators fuel policy.
- Inflight monitoring, analysis of the actual data influencing the flights path, re-calculation on basis of actual figures and coordination of changes to the original flightplan.
- Standard and non-standard ground handling procedures and the specific operational risks.

¹ This section is only to be filled in if safety risks are identified. For environmental risks, please discuss under section 2.1.



Procedures and data influencing mass & balance and special load.

The identification and the forecast of operational risks will allow early and optimized decisions in order to reduce the negative impact on Flight Operations. This will help to achieve oversight even in abnormal or critical operational situations and will finally increase flight safety.

Examples for improper operational control functions leading to accidents:

1. Hapag-Lloyd, Vienna, Austria (July, 2000)

On 12th July 2000 a Hapag-Lloyd Airbus A310 experienced a retraction problem with the right hand main landing gear remaining partly extended after take-off at Heraklion/Greece. The crew decided to continue to Munich/Germany for operational reasons, relying on incorrect fuel data of the FMS not taking into consideration that the system was not calculating the fuel data based on the unclean configuration of the aircraft.

With the actual fuel on board rapidly decreasing the flight deck crew decided to land at Vienna/Austria also not considering the fact that with only 1,9 tons fuel on board the alternate Zagreb/Croatia could have been reached within 10 minutes flight-time from present position which was mandatory according to the company's Operations Manual.

Despite this the flight continued to Vienna and the aircraft encountered engine failure on both engines running out of fuel during final approach and crashed close to the beginning of the runway pavement. Besides the main factors leading to this accident, the accident investigation report of the Austrian Civil Aviation Authority referred also to the inadequate qualification level of the involved staff in Operational Control and Flight Planning analysis and decision making processes. During the time interval from departure until the end of the flight, the OCC-team had a lack of situational awareness though the fact that neither Munich nor Vienna were in range of the aircraft in its actual configuration had been the result of several recalculation of the Operational Flight Plan. Furthermore several ACARS messages to the aircraft in flight recommending first Munich and later Vienna as diversion alternate did encourage the PIC in his incorrect estimation of the situation though the provisions of the company's Operations Manual did prescribe the correct actions to be taken. As a result, there was no clear advice or pre-active inflight support from the OCC available despite the process of supporting the flight deck crew by the OCC was clearly described in both, the respective Operations Manual and Quality Management Handbook.

Since then the recruitment policy of the OCC has been changed in the respect that primarily dispatch and operations control staff holding the German Flight Dispatcher's License is hired or trained to achieve equivalent qualifications. Additionally all staff has to undergo periodical refresher training as described in the IATA Operational Safety Audit IOSA Standards Manual in its current Edition.

The overall result of these measures is an excellent reputation of all staff in the TUI Group Operation Centre, as it is called now, serving all airlines in the TUI Airlines Group consisting of five airlines all over Europe with more than 135 aircraft operating out of the UK, Belgium, The Netherlands, Scandinavia and Germany and both, short-/mid-haul as well as long-haul operation.

The high qualification standards have been confirmed during a IATA Audit in January 2013 describing the TUI Group Operation Centre as 'Skilled personnel resources' and 'Dispatch license requirement a solid plus'

(Sources: Accident investigation report GZ.85.007/0001-FUS/2006 by Austrian CAA & IATA Audit Report TUIfly 1st February 2013 by Norbert Manger and Bill Johnson)



2. Swiss International, Werneuchen, Germany, (July, 2002).

On the 10th July 2002 a SAAB 2000 was operating from Basel/Switzerland to Hamburg/Germany. The flight deck crew was aware of respective TAF's stating temporary thunderstorms in northern Germany for the time period of their STA at destination. Because of this information the PIC decided to tanker additional 600kgs extra fuel for possible holding.

During the flight the forecasted thunderstorms rapidly developed into a massive squall line over northern Europe extending from the Danish/German border south-eastwards moving into north-easterly direction. At the time the aircraft arrived over its destination the airport Hamburg was closed due to heavy thunderstorms and the aircraft entered the holding over Lubeck. With the squall line arriving Lubeck the flight deck crew decided to divert to Berlin/Germany following the north-easterly front of the active squall line that was intensifying on its way to the east. Commencing approach into Berlin ATC notified the crew that Berlin-Tegel was about to be closed as well due to increasing thunderstorm activity.

With ATC handling the flight as fuel emergency the aircraft was directed to the former airbase Werneuchen, where the crew performed a landing that ended in a crash due to unknown obstacles on the runway pavement.

The accident investigation report of the German CA stated clearly, that the OCC was neither contacted by the flight deck crew nor attempted to contact the aircraft themselves though the OCC staff had received several severe weather warnings while the flight was en route. During the holding time over Lubeck the crew did not try the OCC to seek for support in the process of decision making about possible alternative scenarios despite the fact that actual information would have been available there.

Furthermore the accident investigation report stated the fact that during the preparation of the flight documents by the OCC staff vital information was available that would have enabled qualified staff to take the decision to delay the flight for a period of time that would have brought the flight behind the active squall line moving north-eastwards rather than operating in front of the cold front with its obvious effects.

Overall this accident is a clear example where substantiated knowledge of Meteorology would have enabled the involved OCC staff to take operational decisions in cooperation with the flight deck crew would have prevented the aircraft from ending up in distress and crash on an unsuitable runway of a secondary airfield.

Even in the given scenario substantial support from qualified and trained OCC staff could have taken away workload from the flight deck crew and thus supported the decision making in a manner avoiding the final outcome.

(Source: Accident investigation report AX002-0/02 by German CAA)

3. GAF074 Tupolev 154 collided with REACH4201 C141 Starlifter

On 13th September 1997 a US Air Force C-141B Starlifter collided with a German Air Force (Luftwaffe) Tupolev 154M in mid-air approx. 65 nautical miles west of the Namibian coast. The C-141B using the call sign REACH 4201 was operated by the 305th Air Mobility Wing; the Tupolev used the call sign GAF 074. REACH 4201 had departed from Windhoek, Namibia and the aircraft was at its filed for and assigned cruise level of 35,000 feet (FL350). The aircraft was on its filed for and assigned flight plan routing.

GAF 074 departed Diori Hamani International, Niamey, Niger, after refueling, continuing to its next refuelling stop at Windhoek. At the time of the accident, the aircraft was not at its filed for cruise level of FL390 but was still at its initially assigned cruise level FL350. The aircraft was on its filed for and assigned flight plan routing. Windhoek ATC was in sole and continuous radio contact with REACH 4201. The agency did not know GAF 074's movement. Luanda ATC, at one time, was in radio contact with GAF 074 but they were not in radio contact with REACH 4201. Luanda ATC did receive flight plans for both aircraft but a departure message for only REACH 4201.

The official accident investigation report stated as primary cause of this accident that GAF 074 flying a cruise level (FL350) which was not the level they had filed for (FL390). Neither FL350 nor FL390 were the correct cruise levels for that aircraft's magnetic heading according to International Civil Aviation Organization regulations. The appropriate cruise level would have been FL290, FL330, FL370, FL410, etc. The incorrect flight level was a basic error in the flight preparation of the responsible Base Ops staff of the German Air Force Transport Command at Cologne/Wahn.

Although military operations staff training and qualification standards at that time are not totally comparable with the equivalent civil training standards this case shows clearly, that according to the swiss cheese model even the lack of training and qualification of operations and dispatch staff can result in fatal accidents, especially in areas with lower ATC standards than in Europe where strict adherence to given ICAO standards may be of vital importance.

(Source: aviation-safety.net)



Table 1: Safety risk matrix ²

Probability of occurrence		Severity of occurrence				
		Negligible	Minor	Major	Hazardous	Catastrophic
		1	2	3	5	8
Extremely improbable	1	Green	Green	Green	Green	Yellow
Improbable	2	Green	Green	Green	Yellow	Red
Remote	3	Green	Green	Yellow	Orange	Red
Occasional	4	Green	Yellow	Yellow	Red	Red
Frequent	5	Green	Yellow	Red (X)	Red	Red

² Enter the risk index in the appropriate box. For example, an issue that has been identified as 'improbable' and 'catastrophic' would get a risk index of $2 \times 8 = 16$. Put the result in the appropriate box of the table.



1. Baseline assessment

The baseline assessment gives a quick overview of the current situation and expected future developments under the current regulatory conditions as described in section 2 above.

The following questions establish the level of significance of this proposal based on questions regarding six assessment areas. For each question a significance level is estimated ranging from ‘none’, ‘low’, ‘medium’ to ‘high’ significance.

1.1 Safety risks

<p>1. Have any safety risks been identified that could be mitigated by rulemaking? The task is of low significance if a low significance risk has been identified in section 2.3 (risk index 1–6). The task is of medium significance if a medium significance risk has been identified (risk index 7–15). The task is of high significance if a high significance risk has been identified (risk index 15–40).</p>	Estimated significance level			
	None (0)	Low (1)	Medium (3)	High (5)
	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<p>Reasoning (only for significance levels other than 0): The ICAO Annexes 1 and 6 are referring to the FOO-qualification with a high influence to flight safety issues in view of operational control tasks. These tasks must be fulfilled by the PIC (full responsible inflight) or the FOO (full responsible pre-, postflight and supporting inflight). The IOSA-standards are referring to the FOO-qualification, basic and recurrent, as mandatory for Air Operator. Professional systems of Operational Control are not realistic without clear qualification concepts. Because of the high number of flights per time-interval, the probability of occurrences in this relation is “frequent”. Proper risk management (incl. planning functions) in Operational Control will help to avoid situations leading to high potential threats, (see examples above). In average the classification of the severity is “major”.</p>				

<p>1. Has a safety recommendation been published, addressed to the Agency and accepted by the Agency? If so, which significance should be attached?</p>	None (0)	Low (1)	Medium (3)	High (5)
	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Reasoning (only for significance levels other than 0): [This would include safety recommendations from AIBs, issues identified in the European Aviation Safety Programme, ESSI or other relevant sources. The significance level should follow question 1, i.e. if you scored Medium (3) in question 1, this should also be scored with (3). If the recommendation was rejected, please justify.]</p>				

<p>1. Has a safety-related finding from a Standardisation visit been filed? If so, which significance should be attached?</p>	None (0)	Low (1)	Medium (3)	High (5)
	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Reasoning (only for significance levels other than 0): [If not known, contact the responsible Section Manager in S.]</p>				



1. Does the proposal originate from future challenges identified by the Agency? If so, which significance should be attached?	None (0)	Low (1)	Medium (3)	High (5)
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reasoning (only for significance levels other than 0): ...				

1. 2. Does the issue stem from research, technological advances, business evolution or new best practices that require action? If so, which significance should be attached?	None (0)	Low (1)	Medium (3)	High (5)
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Reasoning (only for significance levels other than 0): Development of new operational control procedures and tools with a high influence to the daily operation of aircraft.				

1.2 Environmental risks

1. Under the current regulatory conditions, has an environmental risk been identified in terms of emissions (greenhouse gases and/or local air quality) or fossil fuel consumption? If so, which significance should be attached?	None (0)	Low (1)	Medium (3)	High (5)
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reasoning (only for significance levels other than 0): Qualified staff in Operational Control functions will help to reduce the typical and expensive short term reactions to unidentified risks in daily flight operations. The results are: extended flight-times, unexpected diversions, delays and holdings because of low quality of operational control. As this will affect the daily operation, in average a medium influence to the environmental risk is expected.				

1. Under the current regulatory conditions, has an environmental risk been identified in terms of noise? If so, which significance should be attached?	None (0)	Low (1)	Medium (3)	High (5)
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reasoning (only for significance levels other than 0): Pre-active Operational Control will help to avoid uncontrolled difficult situations for the airline network and help to reduce flight movements within time interval of night curfews.				

1.3 Social risks and issues

1. Under the current regulatory conditions are there any social risks in terms of job losses? If so, which significance should be attached?	None (0)	Low (1)	Medium (3)	High (5)
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reasoning (only for significance levels other than 0): ...				

1. Under the current regulatory conditions are there any other social risks, e.g. in terms of reduction of job	None (0)	Low (1)	Medium (3)	High (5)
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quality, working conditions, inadequate qualifications, free movement, health issues, etc.? If so, which significance should be attached?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reasoning (only for significance levels other than 0): Inadequate or poor qualification leads to poor motivation of the staff to performing pre-active operational control tasks. With increasing productivity of the human resources, the qualification requirements become more important. The free change of labour is limited as the European operator cannot participate from any standard qualification level of European Flight Operation Officer.				

1.4 Economic risks and issues

1. Does the current situation and regulatory conditions induce a cost to government, industry, licence holders, personnel or consumers? If so, which significance should be attached?	None (0)	Low (1)	Medium (3)	High (5)
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Reasoning (only for significance levels other than 0): The different qualification concepts in Europe are not standardized and some countries do not have any concept at all. The consequence is, that some operator or personnel are looking for qualifications outside Europe, ie. short FAA-certified Dispatch introduction courses without the mandatory basic training program. The mostly unstructured European qualification is, in relation to the result, ineffective and expensive. Structured qualification concepts can be adopted easily and without additional costs for the industry.				

1. Does the current situation and regulatory conditions induce a competitive disadvantage for certain economic entities (obstacles on the level playing field)? If so, which significance should be attached?	None (0)	Low (1)	Medium (3)	High (5)
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Reasoning (only for significance levels other than 0): As under item 10, the lack of ICAO-conform training concepts in Europe leading to qualification-tourism to the USA, where the initial introduction course for most of the operator or private personnel is often misused. This short Dispatch introduction course is just the prerequisite for the structured and internal qualification programs of the FAA-certified operator. As there are generally no similar structured training concepts in Europe, the operator and the training industry in Europe cannot participate in this "playing field". Anyway it seems not acceptable to use FAA-certifications for European operator, as the contents are not full in line with the EASA-standards in view of operation of aircraft.				

1.5 Proportionality

1. Does the current situation and regulatory conditions induce a competitive disadvantage for Small and Medium-Sized Enterprises and/or General Aviation? If so, which significance should be attached?	None (0)	Low (1)	Medium (3)	High (5)
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



Reasoning (only for significance levels other than 0): Some major airlines in Europe do have structured qualification programs for FOO in cooperation with major flying schools (ATO), but the small or medium-sized operators are limited to the introduction-content of the FAA-concept described above. The combination of the competence of flying schools (ATO) for the theoretical training and the AOC-holder for the practical training will provide the complete ICAO-conformal FOO-qualification. Partnerships between regional flying schools and AOC-holder can lead to a wide and flexible market for the European stakeholder, including the smaller flying schools and the smaller operator, as long there are standard qualification concepts.

1.6 Regulatory coordination and harmonisation

1. Have any implementation problems been identified that require changes to the rules?	None (0)	Low (1)	Medium (3)	High (5)
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reasoning (only for significance levels other than 0): As there is no rule or regulation for the FOO-qualification in Europe, it should be easy just to adopt the position from the given ICAO Annexes 1 and 6 and the ICAO Doc 7192.

1. Has an overlap/duplication with other areas of European or national legislation been identified?	None (0)	Low (1)	Medium (3)	High (5)
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Reasoning (only for significance levels other than 0): Some national regulations in Europe have established already regulation and procedures for FOO-qualification. It should be the target of the European regulation to define the qualification requirements (learning objectives) and the general intension to combine theoretical and practical training provisions to a complete result. Some national regulations should be improved to meet any future European qualification standard.

[It is one of the objectives set out in the Basic Regulation to reduce/avoid overlap. Thus, if such an overlap/duplication has been identified, the proposal should get a higher score.]

1. Has a difference or non-compliance with ICAO standards been identified?	None (0)	Low (1)	Medium (3)	High (5)
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Reasoning (only for significance levels other than 0): As described in the Issue analysis (chapter 2), any European regulation does not exist and this is not in line with the ICAO Annexes 1 and 6.

It is no longer realistic to argue that only the specific PIC (pilot in command) is exercising operational control, as operational control must also act on a tactical basis before departure of each specific flight. Even the inflight support needs competent staff to identify the best course of action for the system as a whole.

The ICAO describes the general qualification requirement in Annex 6 (see chapter 2). Based on the ICAO SARP's, any European regulation should refer to the detailed learning objectives and the regulation of responsibility and functions of the stakeholder during the FOO-qualification.

[Please explain what this difference is and why it represents a significant finding. Note that EASA rules may of course be more strict than ICAO SARPs, but this would only need to be mentioned here if it creates a problem.]



1. Has a need for harmonisation with Third Countries (e.g. FAA, TCCA) been identified?	None (0)	Low (1)	Medium (3)	High (5)
		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Reasoning (only for significance levels other than 0): As there is no standard qualification concept in Europe, the harmonisation with the FAA-standards is inadequate. Even if European stakeholders are using the FOO qualification in the USA, they are limited to the introduction-element as there is no qualification concept in Europe afterwards. The FAA-related FOO qualification based on structured know-how transfer by ground schools and afterwards from the operator and it will not end up with the introduction-course only.				
[Please explain what this difference is and why it represents a significant finding. Note that EASA rules may of course be more strict than ICAO SARPs, but this would only need to be mentioned here if it creates a problem.]				



1.7 Significance level and score

A two-step process defines the significance level and the significance score for this proposal.

Step 1	Establish the significance level	
	Significance level	Criterion
	A	At least one question was answered with ‘High Significance (5)’ in section 3.1 ‘Safety risks’.
	B	At least one question was answered with ‘Medium significance (3)’ in section 3.1 ‘Safety risks’ or any other question from section 3.2–3.6 was answered with ‘High’ or ‘Medium significance’.
	C	Only issues with ‘Low significance (1)’ or ‘No significance’.
Step 2	Establish the significance score	
	Add up the values of all significance levels.	

Significance level A is therefore reserved for issues with a high significance finding on safety or where the legislator has given an explicit task to the Agency. This approach is to ensure that a high significance finding in safety cannot be overruled by high or several medium significance findings in other areas.

The significance score is derived by adding up all scores allocated to the issue as an absolute number. If an issue was rated with one high significance issue (5) and two medium ones (3), it will receive a total score of 11.

The significance score will later be used to further rank the issues within each significance level.

Conclusion of the baseline assessment for this proposal:

Significance level	Significance score
B	30



2. Objectives of the proposal

The overall objectives of the Agency are defined in Article 2 of Regulation (EC) No 216/2008 (the Basic Regulation). This proposal will contribute to the overall objectives by addressing the issues outlined in Section 2.

The specific objective of this proposal is therefore:

Even with the given ICAO Annexes the European aviation industry or regulatory body has not developed any adequate FOO qualification standard. Since decades the available qualification concepts are fragmented and limited to specific and national regulations.

It should be the overall target to develop the availability of adequate training content and –resources so as to increase the number of ATO’s with FOO-qualification concepts and their respective partner (AOC-holder). This number should be as high as possible.

Each stakeholder (AOC-holder and ATO) in Europe should have the chance to participate in the qualification program and to offer this service to the public.

The European FOO-qualification standard shall include descriptions to the:

- Requirement to combine theoretical and practical know-how transfer from air operator and ground schools under one responsibility, which can be any ATO (Approved Training Organisation).
- Targets of the training by using learning objectives for the theoretical and the practical training. These learning objectives must meet the actual requirements of the industry and should be adjusted in a regular interval
- Examination standards based on the learning objectives

For this overall target it should be sufficient to establish the FOO-qualification framework as Acceptable Means of Compliance (AMC) in the Guidance Material of the EASA Part-ORO.

Generally the experience of the existing stakeholder in Europe can provide support to this development, as the basic-work (definitions of learning objectives, cooperation standards between ground schools and AOC-holder, examination standards) are developed already.

However, it should be in the interest of the AOC-holder and the ground schools, to re-check the learning objectives regularly to meet the qualification requirements of the industry.

Members of the European Federation of Airline Dispatchers Association (EUFALDA) can support in this matter, as some national Associations (ie. GALDA) and the respective NCAA’s do have established procedures.

www.eufalda.org

www.galda.org

[Define a clear specific objective directly related to the issue analysis. The specific objective should address the issue identified as well as its root causes.]

3. Options identified

In order to achieve the above objective, the options below were identified. These options are non-exhaustive, preliminary and indicative and thus do not prejudice future rulemaking activities, which may contain more or less options as well as options of a different content. Only the baseline option (no regulatory change) is mandatory.

Option No	Description
0	No rulemaking (baseline option; issues remain as outlined in Section 3.)
1	Decision by AMC
2	Opinion by IR
3	N/A



Preliminary analysis of the options

[Only to be filled in if options were identified other than the baseline.]

At this stage the options should be looked at from the perspective of the total system approach. Should the issue best be handled by regulatory action or are there other options more promising? The most important question at this stage is if there should be rulemaking or not. If there are non-rulemaking options that can achieve the objective they should be preferred. Especially tasks which received a C score should be carefully evaluated for the need to start a rulemaking task.]

[Which of the options identified is most likely to (best) achieve the objective?

Consider that an option could be related to different disciplines of rulemaking (e.g. IAW or Flight Standards). Different options could also be based on where they are placed in the hierarchy of rules, i.e. Implementing Rules, AMCs or Guidance Material.]

[If regulatory action is considered necessary, which discipline will be concerned? IAW, CAW, FS, Environmental Protection, ATM/ANS, ADR, a cross-over?]

[Possible unintended impacts of these options on safety, environmental, economic and social issues can be discussed qualitatively.]

Based on the above preliminary analysis, the Agency concludes:

Rulemaking action required
Yes/No

If no rulemaking is required, please specify whether alternative action should be proposed

(e.g. research, awareness-raising campaigns): ...]

4. Working method

There are still European countries that do not have regulations for FOO qualifications. This ambiguous situation has now continued for decades. Some European Operators accept parts of the FAR-121 FOO-training concept, which includes a 3-6 weeks preparation course for the following operator-related qualification program under FAA-conditions. The preparation course alone is often used incorrectly by Operators outside the FAA-scope (Europe) as a replacement for a complete FOO-qualification according ICAO Doc 7192 (FOO Training Manual).

This inconsistency in Europe will generally lead to an incomplete FAA-related training with a low-level examination standard that will not cover the rules, procedures and data used by European operators. Since the introduction of JAR OPS 1, the respective regulation declares the FOO Minimum qualification as a recommendation in reference to ICAO Doc 7192 (OPS 1.255). After several accidents some European NCAA developed or improved given national qualification requirements, but there has been no further development of these particular European regulations since 1997.

The FOO-training concept needs to integrate the theoretical and practical training elements provided by institutions able to perform on a professional level. The student need to have access to responsible institutions providing full oversight over all theoretical and practical training and examination requirements.

The combination of providers for the theoretical (Approved Training Organization) and the practical training (AOC-holder) are already established with the MPL ab initio training. The combination of



theoretical and practical training, as per ICAO Doc 7192, should be established also for ab initio FOO-qualification. In 2010 the German regulation of the FOO-qualification was successfully improved and turned in to a concise concept with general and detailed learning objectives for the theoretical and the practical qualification phase. Additionally, the ATO's must declare how they will incorporate the practical training elements provided by AOC-holders into their overall FOO-training concept. The ATO must have specific contracts with AOC-holders able to offer practical FOO-training based on the given standard learning objectives. In this case the responsibility and procedures between the ATO and the AOC-holder must be spelled out in detail. This type of concept can be used as a model for a European qualification standard.

For details to the theoretical learning objectives please copy the following link

<http://www.lba.de/DE/Luftfahrtpersonal/TheoretischePruefung/LernzieleFluddienstberater.html?nn=23204>

For details to the practical learning objectives please copy the following link

http://www.galda.org/Ausbildung_Praxis.html

Working method	RIA type	Lead Department
Group/Agency	None/light/full	[Enter name]

5. Recommendation³

As a result of the above assessment it is recommended to initiate a rulemaking task based on this proposal, which was proposed by xxx. The proposed rulemaking task is intended to reduce the safety/environmental/economic risks identified in relation to xxx. It addresses the safety recommendation xxx issued by AIB xxx.

6. Resource estimate (internal version)

In order to deliver this rulemaking tasks, the following resource estimate has been conducted:

[If a Full RIA is envisaged, estimate the staff workload for data collection and data analysis.]

Resource	Description
Agency staff	[Please specify in terms of FTE per year including RIA team if required]
NAA staff	[Please specify in terms of FTE per year]
Industry staff	[Please specify in terms of FTE per year]
Duration (publication of ToR to publication of Opinion/ED Decision)	[Please specify no. of years]

³ The text entered in this box is intended for external use, e.g. as a draft official response to a safety recommendation (after verification by AGNA/SSCC). It should give a brief reasoning for the recommendation (rulemaking or not).



7. References

ICAO Annex 6 Operation of Aircraft, Annex 6, Part I, and Part III, Section II.

Chapter 3 General

Chapter 4 Flight Operations

Chapter 10 Flight Operations Officer / Flight Dispatcher

ICAO Doc 9376 Preparation of an Operations Manual

4.1 Training

4.16 FLIGHT OPERATIONS OFFICER/FLIGHT DISPATCHER

6.4 OPERATIONAL STAFF RESPONSIBILITIES

Chapter 7 OPERATIONS SUPERVISION - GROUND

7.10 PRE-FLIGHT REPORTING AND DUTIES

Chapter 9 FLIGHT PREPARATION

9.1 FUEL, OIL AND OXYGEN SUPPLY REQUIREMENTS

ICAO Doc 8335 Manual of Procedures for Operations Inspection,

Certification and Continued Surveillance

Chapter 5: Operational Demonstration and Inspection

Subchapter 5.3.4 Operational Control Organization, page 74:

ICAO Doc 7192 D3 Flight Operations Officer / Flight Dispatcher Training Manual

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8. Abbreviations/Glossary

AOC Air Operator Certificate

ATO Approved Training Organisation

EUFALDA European Federation of Airline Dispatchers Association

FOO Flight Operations Officer

GALDA German Airlines Dispatcher Association

9. RIA data needs

[If a Full RIA is envisaged, provide a preliminary list of indicators/data to be collected from sections 2.1 and 2.2. This will give a hint to the RIA team of the future data needs.]



10. Annex I: Risk assessment

ICAO defines safety as the state in which the risk of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through a continuous process of hazard identification and risk management.

Thus, risk assessment is a key element managing safety. Risk is expressed in terms of predicted probability and severity of the consequences of a hazard taking as a reference the worst foreseeable situation.

In order to define the elements 'probability' and 'severity', the following tables were developed based on the ICAO framework.

Table 2: Probability of occurrence ⁴

Definition	Value	Description
Frequent	5	Likely to occur many times (has occurred frequently). Failure conditions are anticipated to occur one or more times during the entire operational life to each aircraft within a category.
Occasional	4	Likely to occur sometimes (has occurred infrequently). Failure conditions are anticipated to occur one or more times during the entire operational life to many different aircraft types within a category.
Remote	3	Unlikely, but possible to occur (has occurred rarely). Those failure conditions that are unlikely to occur to each aircraft within a category during its total life but that may occur several times when considering a specific type of operation.
Improbable	2	Very unlikely to occur. Those failure conditions not anticipated to occur to each aircraft during its total life but which may occur a few times when considering the total operational life of all aircraft within a category.
Extremely improbable	1	Almost inconceivable that the event will occur. For rulemaking proposals aimed at CS-25, CS-29 or CS-23 (commuter) aircraft, the failure conditions are so unlikely to occur that they are not anticipated to occur during the entire operational life of the entire fleet. For other categories of aircraft, the likelihood of occurrence may be greater.

⁴ These categories need to be applicable to a wide range of safety issues and are taken from the ICAO Safety Management Manual. The description is harmonised with CS-25. Note that these descriptions are indicative only and may have to be adjusted to different rulemaking tasks depending on subsector of aviation.



Table 3: Severity of occurrences

Definition	Value	Description
Catastrophic	8	Multiple deaths (three and more) and equipment destroyed (hull loss).
Hazardous	5	A large reduction of safety margins. Maximum two fatalities. Serious injury. Major equipment damage.
Major	3	A significant reduction of safety margins. Serious incident. Injury of persons.
Minor	2	Nuisance. Operating limitations. Use of emergency procedures. Minor incident.
Negligible	1	Little consequences.

Table 4: Risk index matrix

Probability of occurrence		Severity of occurrence				
		Negligible	Minor	Major	Hazardous	Catastrophic
		1	2	3	5	8
Extremely improbable	1	1	2	3	5	8
Improbable	2	2	4	6	10	16
Remote	3	3	6	9	15	24
Occasional	4	4	8	12	20	32
Frequent	5	5	10	15	25	40



Table 5: Description of the different risk indices

Risk index		Description
16-40	High significance	Unacceptable under the existing circumstances.
15	Medium or High significance	For non-complex aircraft this would result in a medium significance issue. For CAT with complex motor-powered aircraft this would result in a high significance issue.
7-14	Medium significance	Tolerable based on risk mitigation by the stakeholders and/or rulemaking action.
1-6	Low significance	Acceptable, but monitoring or non-rulemaking action required.

11. Annex II: Regulatory Impact Assessment types

RIA types	Characteristics	When to use it (indicative)
No RIA, only discussion in the Explanatory Note	Possible effects are only discussed in the Explanatory Note.	Only negligible impacts expected, recurrent rulemaking, updating of rules, no options available for the Agency (C Items).
RIA light	Only qualified discussion of the impacts. All RIA elements used and discussed.	Limited impacts, possibly sufficient information from other sources (e.g. FAA Economic Evaluations); limited stakeholder concerns (B7 items and less).
Full RIA	Quantified where possible, with questionnaires if necessary. All elements of the RIA discussed, quantified or not, final assessment using Multi-Criteria Analysis.	Significant impacts expected, significant stakeholder concerns, new rules (A items; B8 and higher).