

ESTABLISHING A CENTRALIZED ATO ORGANIZATION FOR GLIDER PILOTS TRAINING

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Summary. This paper deals with the incorporation of the Centralized Approved Training Organization into the structure of flight training facilities in the Czech Republic. The work summarizes all requirements for the training organizations after a release of new regulations. The most significant changes in the requirements relate to a glider pilot training and therefore this work is focused on this particular topic. In the first part of the work we wanted to recap all the requirements and compare them with the original legislation to emphasize the changes. Then, it is discussed about a newly established flight training organization which is an Approved Training Organization or an ATO. In the third chapter, we deal with the specific requirements which must an operator complies when applying for the issuance of the ATO certificate. At the conclusion of the work we deal with the realization of the establishment of a centralized ATO for the glider pilot training. This proposal gives an example how the centralized ATO could solve the problem with a cooperation with other aero clubs as supplier organizations.

Keywords: approved training organization, centralized ATO, registered facilities, flight training, safety management system, EU regulations

1. INTRODUCTION

At the beginning of the year 2012 the European Aeronautical Safety Agency released new regulations adjusting the requirements for organizations providing a flight training. This regulation shall be binding for all European Union members including the Czech Republic. The regulations bring significant changes to the current system of the pilot training especially a newly introduced concept of an ATO (Approved Training Organization). In fact, the training organizations that currently operate the flight training will terminate its operation. These organizations were Flight Training Organizations (FTOs), and then registered facilities which are part of the JAR system and organizations regulated by a national legislation (both with significantly fewer responsibilities regarding personnel, administration and management). The ATO is already a subject to the new requirements and regulations relating to the Part ORA regulations. [1, 2, 3]

The goal of the work is to focus on the issue of the glider pilot training and to propose solutions to the current situation by introducing the so-called centralized ATO. The first chapter summarizes the legislative requirements relating to changes arising for training organizations and their comparison

with the previous legislation. The second chapter discusses the newly introduced Approved Training Organization. Furthermore, it discusses the ORA Part and Part FCL which have the greatest influence for the establishment of the ATO. The third chapter deals with the necessity of an incorporation of the safety management system to the structures of training organizations. In the last chapter of this work we are describing an idea of establishing the centralized ATO for the glider pilot training. This proposal gives an example how could the centralized ATO cooperate with other aero clubs as supplier organizations.

2. SUMMARY OF THE LEGISLATIVE REQUIREMENTS

The organizations providing the flight training to obtain the qualification of an aviation personnel currently include three types of organizations. The first was the Flight Training Organization or the FTO. There also were Type Rating Training Organizations or TRTOs providing theoretical and practical trainings on a particular type of an airplane. The last types were registered facilities and organizations regulated only by national regulations. All these organizations differed mainly in the type and scope of the training they were offering. If we focus on the training for the glider pilot, these trainings were mostly held in aero clubs that were either registered facilities or could be conducted as a civil association. All aero clubs had a chance to become a member of the Aeroklub České republiky (Aero club of the Czech Republic). However, the legislative regulatory requirements for the glider pilot training were not subject to the JAR – FCL regulations [4]. The training was governed only the requirements set out in the regulation L1 [5] which was issued pursuant to Section 102, paragraph 2 of Law No. 49/1997 Coll of Civil Aviation by the Department of Transportation. Therefore it is necessary to mention that the training facilities providing only the glider pilot training don't have to be registered by the Civil Aviation Authority as registered facilities. However, common practice shows that most of these training facilities, especially the aero clubs, were registered anyways. [6, 7, 8]

However, at the begging of the year 2012, the European Commission issued new regulations that set requirements for organizations providing the flight training. These regulations are binding for all member countries including the Czech Republic. In the future every training organization, regardless of the type of the training it provides, will have to obtain an ATO certificate. The ATO organization is already a subject to the new requirements and regulations resulting from the Part ORA. In order to provide the flight training the organizations must comply with all the requirements in this regulation. [9, 10]

There are two crucial regulations for providers of the flight training. It is the Commission Regulation (EU) No 1178/2011 of 3rd November 2011 [11] laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council [12] and the Commission Regulation (EU) No 290/2012 of 30th March 2012 [13] amending Regulation (EU) No 1178/2011 [11] laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council [12]. These two regulations altogether consist of seven annexes that deal with various areas of the certification of the aviation personnel. The most important for this work is the Part ORA which defines specific requirements for the training organizations and the Part FCL concerning certification of a flight crew. [14, 15, 16]

Due to unreasonably short period of time during which should be made appropriate changes defined by these regulations, EASA proceeded to apply the transitional period. This transitional period provides sufficient period of time for all providers of the flight training to ensure the changes mentioned in the new regulations will be done correctly. It is actually postponing of the deadline for the need to introduce changes.

3. INTERPRETATION OF THE ATO

Once the new regulations are in effect, the training for the aviation personnel will be carried out only by the Approved Training Organizations. As already mentioned, the ATO is an organization certified according to the Part ORA authorized to provide training courses in accordance with the Part-FCL. A certificate of such organization is limited to the scope of the training courses as is stated in the approval of the training courses which is produced by the CAA together with the certificate. [17, 18]

The very important role in the implementation of the new regulations is the size and complexity of the organization. This fact determines the extent to which the requirements are to be addressed. Currently, the organizations are divided into a complex and non-complex organizations according to the Part ORA. In the paragraph AMC1 ORA.GEN.200 (b) Management System there are clearly specified criteria by which are the organizations sorted as the complex or non-complex. This regulation precisely specifies that the organizations providing only the glider pilot training are classified as the noncomplex organizations. [19, 20]

4. ESTABLISHMENT OF THE ATO

An establishment of the ATO including the approval process is a fairly complex matter. Only eight of these organizations have been approved in the Czech Republic since the 20th of February 2014. The organization must accomplish a number of requirements and have certain attributes to pass the approval process. The most significant change from all the requirements is the need for a safety management system (SMS). It is a management system that inherently includes all processes of the organization thus all the operational and technical parts. So it is a set of procedures and measures that have been created in order to ensure an effective system of a risk management and an accident prevention to increase the level of the safety throughout the organization. It becomes an essential aspect of the safety culture. The safety management system should be incorporated into the structure of the organization and become a part of its philosophy. It represents a complex organization's approach to safety issues. The SMS itself consists of many elements that need to be followed. Only under this assumption the whole system is efficient and functional. [21]

The basic structural element of the SMS is the Safety Management as it is considered a primary activity when designing the system because it focuses on the initial hazard identification and management of the operational security risks. Safety Management process begins with the collection of an appropriate data that can be obtained from various sources. These sources are for example people in the organization, operating procedures, reporting systems and data analysis of flight recorders. After the data are collected they must be properly analysed. This analysis should lead to the discovery of weaknesses in the system. This information can give us an idea in which section of the organization can the risk occur and how and when this risk occurs. You can obtain awareness of the organization in which section may occur risk how and when this risk occurs. After identifying potential risks it is necessary to assess their severity and consequently their likelihood. After we have discovered and classified all risks the actual risk management can begin. Possible threats can be either accepted, reduced or completely eliminated. Once the organization selects a suitable means of prevention or the elimination of the potential danger the suitability of this strategy must be verified and only then it can be applied. [22]

A Compliance Monitoring is a very important part of the safety management system. Its task is to ensure that the organization progresses based in the internal regulations are in accordance with the applicable requirements of the laws and regulations. The Compliance Management is performed in the control of the approved training courses, manuals, journals and management of all compliance training procedures. This can be done by conducting audits. [23]

All other requirements for the training organizations are specified in the Part ORA. For example, claims relating to facilities, personnel, airports and storage of records.

5. ESTABLISHMENT OF THE CENTRALIZED ATO

A concept of the centralized ATO is not implemented in any of the legal documents of the European Union. Under this concept it is possible to imagine an organization engaged in the training of the aviation personnel using for the operation of their business external supply organizations. The creation of the centralized ATO for the glider pilot training could help other organizations that used to provide this training in the past but under these circumstances they will no longer be able to. Especially the aero clubs which previously operated the gliding lessons but after the 8th April 2015 they would have to comply with all the attributes needed to establish the ATO. Unfortunately, this will not work with the most aero clubs for different reasons. These reasons may be for example the need for creating a Safety Management Manual, the need for establishing new jobs (Accountable Manager, Compliance Monitoring Manager, Safety Manager and Head of Training), continuous training of such persons or the increase of organization's costs associated with the establishment of the ATO itself. For this reason the creation of the centralized ATO could be a way for the aero clubs how to continue operating glider trainings. [24]

The key to how this might work is the use of subcontractors. In fact the organization may decide to provide some activities outsourced to external organizations. The centralized ATO could therefore benefit from the aero clubs as suppliers for which they will provide trainings but they will not have to be registered as the approved training organization themselves. In this case there will have to arise a contract between the ATO and contracting organizations. It could be a written agreement that clearly defines all outsourced activities and related requirements on them. This contract will ensure that all the outsourced activities will be subject to a hazard identification and risk management as required in ORA.GEN.200 (a) (3) and compliance monitoring by ORA.GEN.200 (a) (6).

But the first step of the centralized ATO should take is to sign a written agreement with the suppliers. This step should precede the application for approval of the ATO and for this reason, in case the organization has suppliers for a part of their business, the relevant authority in the ATO approval process include these supplying organizations and verify that the intended level of training satisfies the requirements. The subject of this agreement in the first place should be the exact specification of activities that will the aero club perform as a supplier for the ATO. Consequently, it is necessary to specify requirements for the aircraft, instructors, premises and records in the contract.

As the ATO is responsible for compliance with the requirements for the training under the Part ORA and Part FCL the supplier organization must undertake that they will strictly observe the operational and training manual written by the ATO when they engage in the training. This should ensure compliance with the requirements that are laid on the training in the relevant regulation.

Consequently, it is necessary to establish a functional safety management system in the organization of the integration of the supplier organizations. Suppose the centralized ATO in implementing the SMS proceeded in the same way as a standard ATO. An incorporation of the aero club as a supplier could be solved by issuing addenda to the Security Manual of the ATO organization which will always applied to the one of the contracting aero clubs. The Safety Management Manual should be a key tool for the description of the approach to the safety across the entire organization including their service suppliers. All parts of the Security Management should be written in the SM Manual including security policies, plans, objectives, procedures and individual responsibilities for the safety. This guide could therefore be structured so that the supplier aero clubs would figure without any further specification. An integral part of the SMS, however, is a security risk management which is necessary to develop separately for each subcontractor. Particularly this risk management would be a subject to amendments issued under the SM Manual.

Securing of the security risk management process of each supplier would lie on the centralized ATO. Supplying organization, however, will be tasked to deliver a list of hazards to the centralized ATO. The supplier would then have to fill out a form to identify the hazards. This form would specify all the generic and specific hazards and subsequent determination of the effects of these hazards. After completing the aero club would send the form back to the qualified safety manager of the ATO to assess the risk that these dangers bring. The manager would send back a copy of the fully completed form with a risk qualification and recommendations.

Supplying organizations must commit they will let the auditor perform compliance monitoring inside their organisation. These audits shall be performed by the Compliance Monitoring Manager of the ATO or an authorized external company with the appropriate expertise and experience in the auditing.

All aviation organizations regardless of their nature have a business component. It is understandable that the introduction of new systems into the training organization also brings with it an increase in internal costs. Therefore, we should take into account the specific investment costs linked to the implementation of the SMS in the organization. These costs include for example funds for the basic training of a responsible staff, buying software for efficient function of the SMS as well as operating costs such as staff salaries and expenses associated with their regular training. All of these costs would, however, avoid for the supplier aero clubs. That is the reason why the aero clubs should pay fees for an operation. The aero clubs could continue to operate flight training without restructuring the organization, without having to implement the safety management system, without the need for creating new documents and so on. All this would be managed by the centralized ATO.

6. CONCLUSION

This paper deals with the problem of flight training facilities, which are currently subject to new demands and requirements from the European Union. These requirements were published as Commission Regulation (EU) No 1178/2011 and subsequently issued a complementary Commission Regulation (EU) 290/2012. It is the regulation which recently entered into force and organizations affected by these changes rather gradually begin to resolve the situation. We find the most striking difference from the previously applicable regulations in the requirement of the EASA to implement the Safety Management System modelled after the ICAO which is being gradually introduced into all areas of the civil aviation. The reason for the introduction of new rules is undoubtedly an effort to unify the legislative requirements of all Member States of the European Union and increase the safety in the air transport to the maximum possible level.

7. LITERATURE LIST

References

Books:

- [8] Němec, V.: *Aviation Legislation*. Brno: Akademické nakladatelství CERM, 2006. 216 s. ISBN 80-7204-366-8. (in Czech).
- [17] Bc. MOTYČKA, Ivo. *Letové standardy - Part ORA - požadavky na výcvikové organizace*. Brno, 2013. Diploma thesis. Vysoké učení technické v Brně, Fakulta strojního inženýrství.
- [22] SEKYRA, Radek. *Systém řízení bezpečnosti pro všeobecné letectví*. Praha, 2012. Bachelor thesis. Czech Technical University, Faculty of Transportation Sciences.

Conference Proceedings:

- [15] Svoboda, M. - Hospodka, J. - Heralová, D.: Cabin Crew Conduct and Working Conditions. In: *Aeronautika 15. Lublin*. Lublin University of Technology, 2015, p. 215-222. ISBN 978-83-7947-149-2.
- [16] Němec, V. - Szabo, S. - Endrizalová, E.: Flight Crew Training Status in Czech Republic. In: *New Trends in Aviation Development 2014*. Košice: Technická univerzita v Košiciach, Letecká fakulta, 2014, ISBN 978-80-553-1650-5.

Web sites:

- [1] *ROZHODNUTÍ č. 2012/007/R VÝKONNÉHO ŘEDITELE AGENTURY*. In: 19. 4. 2012. Available from: http://www.caa.cz/file/6292_1_1

- [2] *ROZHODNUTÍ č. 2011/016/R VÝKONNÉHO ŘEDITELE EVROPSKÉ AGENTURY PRO BEZPEČNOST LETECTVÍ*. In: 15. 12. 2011. Available from: http://www.caa.cz/file/6493_1_1
- [3] *Opinion 03/2011*. In: EASA - European Aviation Safety Agency, 19. 4. 2011. Available from: https://www.google.cz/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad=rja&uact=8&ved=0CEcQFjAE&url=https%3A%2F%2Feasa.europa.eu%2Fagencymeasures%2Fdocs%2Fopinions%2F2011%2F03%2Ftranslations%2FEASA_2011_00050002_CS_TRA.pdf&ei=YopXUmlJsOd7QbM5oCYCA&usg=AFQjCNEYJ_YsSd_-PzzC4UNWNx64Qb6Glg&bvm=bv.65177938,d.ZGU
- [4] *LETECKÝ PŘEDPIS JAR - FCL 1: Způsobilost členů letových posádek*. In: MINISTERSTVO DOPRAVY ČESKÉ REPUBLIKY, Processor: Úřad pro civilní letectví, Last change 28. 8. 2008, reference number 152/2007-220-SP/2. Available from: http://lis.rlp.cz/predpisy/predpisy/dokumenty/Jar/JARFCL_1/data/print/JAR-FCL_1_cely.pdf
- [5] *LETECKÝ PŘEDPIS L1: LETECKÝ PŘEDPIS O ZPŮSOBILOSTI LETECKÉHO PERSONÁLU CIVILNÍHO LETECTVÍ*. In: MINISTERSTVO DOPRAVY ČESKÉ REPUBLIKY, Processor: Úřad pro civilní letectví, Last change 14. 11. 2013, reference number 501/2006-220-SP/6. Available from: http://lis.rlp.cz/predpisy/predpisy/dokumenty/L/L-1/data/print/L-1_cely.pdf
- [6] *OSNOVY VÝCVIKU NA KLUZÁCÍCH AK-PL 2006*. In: Aeroklub České republiky, revised edition valid from 01. 04. 2006. Available from: http://www.aecr.cz/download.php?file=upload/www.aecr.cz/plachteni-osnovy-pro-vycvik/_dir/35/ak-pla1a4a2006.pdf
- [7] *Registrovaná zařízení, EASA a naše FTO po 8. 4. 2012* [online]. 31. 03. 2012 [cit. 2015-12-09]. Available from: <http://blog.flyforfun.cz/?p=585#more-585>
- [9] *ZKUŠEBNÍ OSNOVY pro teoretické zkoušky pilotů kluzáků (GLD) a pilotů motorových kluzáků (TMG) civilního letectví*: Os 15. In: Úřad pro civilní letectví, 1. 1. 2005. Available from: <http://www.caa.cz/personal/letecky-personal-pilot-kluzaku>
- [10] *FCL Organisations Approvals*. EASA: European Aviation Safety Agency [online]. [cit. 2015-11-03]. Dostupné z: <http://easa.europa.eu/fclorganisations-approvals/>
- [11] *NARÍZENÍ KOMISE (EU) č. 1178/2011*. In: 3. 11. 2011. Available from: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:311:0001:0193:CS:PDF>
- [12] *NARÍZENÍ EVROPSKÉHO PARLAMENTU A RADY (ES) č. 216/2008*. In: 20. 2. 2008. Available from: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:079:0001:0049:CS:PDF>
- [13] *NARÍZENÍ KOMISE (EU) č. 290/2012*. In: 30. 3. 2012. Available from: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:100:0001:0056:CS:PDF>
- [14] *ROZHODNUTÍ č. 2013/008/R VÝKONNÉHO ŘEDITELE AGENTURY*. In: 16. 4. 2013. Available from: http://www.caa.cz/file/6669_1_1
- [18] *ÚŘAD PRO CIVILNÍ LETECTVÍ. Uplatnění nových požadavků na způsobilost členů letových posádek (Aircrew Regulation)* [online]. [cit. 2015-12-09]. Available from: <http://www.caa.cz/personal/prechodna-opatreni-pro-narizeni-ek-c-1178-2011?highlightWords=ATO>
- [19] *Přijatelné způsoby průkazu (AMC) a poradní materiál (GM) k Části ORA*. In: 19. 4. 2012. Available from: http://www.caa.cz/file/6671_1_1
- [20] *CAA-ZLP-049: ZPŮSOBILOST PILOTŮ KLUZÁKŮ*. In: *Dokument je vnitřním postupem Úřadu pro civilní letectví*, Date of last change 17. 6. 2008. Available from: http://www.caa.cz/file/807_1_1
- [21] ZUSKA, Adam. *ATO a tak dále...* [online]. 20. 2. 2013 [cit. 2015-12-09]. Available from: <http://www.aeroweb.cz/clanek.asp?ID=3656&kategorie=3>
- [23] *SMĚRNICE CAA-FOD-01/2013: PORADNÍ MATERIÁL K POŽADAVKU ORO.GEN.200 SYSTÉM ŘÍZENÍ*. In: Úřad pro civilní letectví, 25. 03. 2013, Reference number 382-13-301. Available from: http://www.caa.cz/file/6472_1_1/
- [24] *P - 1 SMĚRNICE PRO LÉTÁNÍ V AEROKLUBECH*. In: Aeroklub České republiky, Valid from: 01. 03. 2004. Available from: <http://www.aeroklubjesenik.cz/file/P1.pdf>