THE CHALLENGES OF OPERATIONS CONTROL CENTRES (OCC) IN EUROPEAN BUSINESS AVIATION

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Summary: Operations control centre (OCC) is a very important unit in the structure of every operator. The dispatchers' scope of tasks may be very large depending on the type of operation as well as size of the company. In business aviation the OCC often has an even more specific role and right training and activities selection are crucial to run the OCC. This article´s aim is to describe tasks and training of OCC personnel in the light of the current European legislation.

Key words: Air Transportation, Business Aviation, Operations Control Centre, OCC

INTRODUCTION

The position of the Operations Control Centre (OCC) in airlines structure has evolved and changed several times over the time. Shortly after massive growth of aviation, it emerged as an essential part of the operations process with the aim to organize and manage smooth flow of operations. The tasks primarily performed by the operating crew became so complex that dedicated personnel was needed. At the beginning it was with the help of the pilots that new people were trained to become the first flight operations officers (FOO) also known as flight dispatchers (FD). Later on, as business aviation became an important part of aviation, the OCC was needed again, this time with high level of complexity and new tasks, never experienced before. The challenges of an OCC in the modern world of European business aviation are to be described in the article. Several studies concerning OCC in the airlines business have been published but very little information is practically dedicated to its application in business aviation.

1. OCC PROCESSES

With operators ranging from small having one aircraft only to huge companies, the role of the OCC in the structures of business aviation operators varies significantly. Commonly, this unit is responsible for decision-making in multiple tasks and is sometimes subdivided into two categories: flights scheduling and flights dispatching. The first group is, in short, responsible for all related with ground services such as handling arrangements, landing and overflight permissions or airport slots. The second group´s task is flight planning preparation with deeper knowledge of areas such as meteorology, air traffic management or aircraft systems and capabilities. As money is often an important driver of business aviation operators, the two structures are commonly merged into one. To run an independent OCC, it

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is essential, among others, to get well aware of procedures in separate countries, airports and also get to know the operated aircraft into detail. This requires a lot of time to learn and is not straightforward at all. The correctly setup processes and adequate rules across the department are important to find a middle ground between safe operation and profitability. Unfortunately, it is not rare that business aviation operators run highly risky OCC departments with inexperienced personnel whose decisions may put their operating crew, aircraft or even whole companies involved in flight and ground operations in danger. It is not easy to start a new OCC from the scratch and it should be the regulatory body´s job to ensure minimum level of knowledge of such personnel to mitigate any associated risks to the minimum level. One of the available options of such mitigation is to buy the service from one of the third-party providers available on the market. These companies specialise in flight scheduling and dispatching and are typically familiar with a variety of tasks that the newcomers will probably come across with difficulties. The cons of such cooperation are in applying the legally or internally required specifics of the operators into the providers' framework.

2. OCC LEGAL FRAME IN EUROPE

It is surprising that unlike in other geographical areas (United States etc.), no robust legal system is in place in Europe concerning the dispatching work and control of activities and processes of separate operators. This allows the operators to set their standard according to their needs and specifications and especially in business aviation this is a common practise. ICAO touches the problematic of flights operations officers / flight dispatchers very lightly in Standards and Recommended Practices for Personnel Licensing designated as Annex 1 and Operations of Aircraft known as Annex 6, both part of the Convention on International Civil Aviation. Both annexes are adopted into national regulations Europe-wide and a flight dispatcher licence may be obtained from the regulatory bodies (Civil Aviation Authorities). Since the Flight Dispatcher Licence is not required by most mother authorities to allow people perform OCC tasks, the level of the business aviation OCCs in Europe is lower than it might be if effectively regulated.

The operators with higher level of safety understanding keep the flight dispatcher licence in their internal requirements but those operators who do not put enough importance at training the personnel represent high risk to the industry. This difference may often be seen in more complicated flight planning tasks such as oceanic flight planning where deeper area knowledge is very important and flight planning errors are frequent. According to the numbers published by the United Kingdom air navigation service provider NATS, for example, the percentage of business aviation movements is considerably outnumbered by the percentage of flight planning and procedural errors of the same group. As mentioned, the price of the OCC service by the third-providers may be very important especially for small operators but the level of the OCC should not be missed out too as a higher level of safety is always priceless.

2.1 OCC Responsibility

Two basic models exist in terms of responsibility. The first of them is described as shared responsibility and the second one, inversely, non-shared responsibility. Both of them bring certain benefits to their users. The non-shared responsibility defines the commander responsible for the correct and legally sufficient flight planning preparation with all the prescribed minimums met. The commander of the flight does not share the responsibility for planning of the flight with the FOO/ FD. In the shared-responsibility model, the commander and OCC share the responsibility together. In this model, even deeper knowledge is necessary to be able to perform the task. The shared-responsibility model is very rare in the field of business aviation because much more complex training and systems are needed increasing the cost of such organisation and only larger OCCs may benefit from this option.

3. OCC TRAINING

One of the ways to make the OCC safe and of a good level is to invest in adequate training and personnel selection. The topics of the training for airlines are covered by the ICAO´s Flight Operations Officers/Flight Dispatchers Training Manual, Part D-3 of document 7192, where Annex 1 and Annex 6 requirements are covered. Unfortunately the syllabus of this manual is out-dated with the latest revision made in 1998. For business aviation with a lot of specifics as described in the author´s article *Business Aviation in Europe*, additional tasks exist for the OCC as well, for which no training syllabus is available, unfortunately. It is then of such operators 'responsibility to define such additional procedures and make them part of their training. The factors that are to be considered separately for business aviation are listed in the table 1.

Tab. 1 – Business Aviation additional factors affecting OCC activities

Factor	Main reasons
Advanced time management skills	1. High operations irregularity 2. Unsteady workforce distribution 3. Periods of high and low flight volumes
Advanced Stress management skills	1. Need for immediate action with short notice given 2. Random creation of flights 3. High portion of changes 4. Emphasize given to meet passengers' needs 5. Pressure to make quick arrangements (e.g. landing and overflight permissions)
Advanced decision making principles	1. Increased number of never experienced situations 2. Proactive principle application
Enhanced area knowledge need	1. High number of served airports/areas 2. Low frequency of repeating operations

Factor	Main reasons
	3. Limited operational feedback
Service providers selection	1. Lower number of ground handling agreements 2. New providers selection for new airports 3. Various providers for one location
Aviation economics basics	1. Positioning flights management 2. Technical stops management (high variability) 3. Comparison of various scenarios
Security associated risks	1. Limited time for full analysis 2. Pressure to meets passengers ´needs
Special operations	1. Winter operations 2. Military airports operations 3. Operations to airports with limited facilities

Source: Author

3.1 Current ICAO training syllabus

The currently ICAO proposed syllabus is in place since 1998 and with the sector technological, legislative and procedural changes a revision should be considered to meet the up-to-date needs of the industry. The syllabus for the OCC personnel as of 2013 is listed below:

- Civil air law and regulations
- Aviation indoctrination
- Aircraft mass and performance
- Navigation
- Air Traffic management
- Meteorology
- Mass and balance control
- Transportation of dangerous good by air
- Flight planning
- Flight monitoring
- Communications-Radio
- Human factors
- Security (emergencies and abnormal situations)

Two phases are proposed to the OCC training with the first one being a theoretical preparation and the second one in the form of practical training. International Federation of Airline Dispatchers Federation (IFALDA)´s contribution is mentioned in the document. The IFALDA dependent organisations are the European Federation of Airline Dispatchers

Association (EUFALDA) and separate associations on the individual states level, for example, Czech Association of Airline Dispatchers (CZALDA). Unfortunately, as business aviation operators are rarely members of any of the groups, their suggestions are not taken into account.

On the Czech national level, the ICAO flight dispatcher licence may be obtained from the Czech Civil Aviation Authority (ÚCL) with the following course and exams syllabus:

- Meteorology
- Navigation
- Civil air law and regulations
- Communications- Radio
- Telecommunication law
- English

3.2 Proposed training syllabus amendments

The factors identified as standalone or additional for business aviation OCC training are suggested to be added into business aviation operators´ training syllabus before the new revision of the ICAO´s Flight Operations Officers/Flight Dispatchers Training Manual, Part D-3 of document 7192 is published. The proposed scheme is to include additional modules according to operations specifications. The module applicable in case of business aviation would categorize the additional training requirements into the scheme described in the table 2.

Tab. 2 – ICAO´s Flight Operations Officers/Flight Dispatchers Training Manual syllabus update proposal

Factor	Chapter
Advanced time management skills	Human factors
Advanced Stress management skills	Human factors
Advanced decision making principles	Human factors
Enhanced area knowledge need	Flight planning
Service providers selection	Aviation economics (new chapter)
Aviation economics basics	Aviation economics (new chapter)
Security associated risks	Security (emergencies and abnormal situations)
Special operations	Flight planning

Source: Author

Most of the chapters already exist in the current document but a great deal of them needs some degree of update for business aviation OCCs. This is the case of, for instance, Human factors chapter where more detailed information would be necessary to satisfy the increased number of new situations with high exposure to the stress. Another similar case needing an update would be the Flight planning and Security chapters to allow the OCCs to dispatch an aircraft into a less frequently flown area with a minimum delay while keeping the safety of the operation at the highest possible level. Given the fact business aviation operators perform more flights into the special operations category airports (VFR, limited facilities or

military airports) and additional subchapter is suggested with standard procedures definition of such operations. As described at the beginning of the article, business aviation OCCs often perform more tasks than their airlines counterparts which brings a need for a new chapter addition. The proposal mentions the name Aviation economics basics which would cover topics helping the FOO/FD to make decision concerning tech-stops selection, positioning flights etc.

On the Czech national level, it would be suggested to update the Flight dispatcher licence courses and exams syllabus with as many items as practicable from the ICAO´s Flight Operations Officers/Flight Dispatchers Training Manual and update them in accordance with the current aviation trends. The same suggestions by the author are applicable as on the ICAO international level. This would ensure all the OCCs are trained and approved with the same predefined minimum level, having for another effect their increased knowledge and consequently higher level of business aviation operations safety.

CONCLUSION

The article described the current situation of OCC position and training in light of modern business aviation needs and suggested a broader syllabus for the FOO/FD training to meet the specifics of their OCCs requiring an update of the ICAO´s Flight Operations Officers/Flight Dispatchers Training Manual, Part D-3 of document 7192 with subsequent application throughout the national levels with Civil aviation authorities involved. The legal application might be lengthy for the administrative burden and the proposed practise would be to liaise with the OCC as much as possible to define their needs, identify the commonly mentioned ones and forward them to ICAO through IFALDA, for example. In the meantime the result of the research could be shared with the participating OCCs. European Business Aviation Association-EBAA could be used as a distribution channel and also a link between IFALDA and business aviation operators not participating in its structure. The foreseen benefit would be to standardize the processes and training of OCC across countries and possibly Europe too and to avoid unqualified FO/FOO performing safety critical duties and thus increase safety.

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