9

Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

Swiss Confederation

Federal Department of the Environment, Transport, Energy and Communications DETEC

Federal Office of Civil Aviation FOCA

Directive

USSP 2023-01

# **SOUP** Systemic Oversight on U-Space Service Provision

Reference:	377	
Legal Base:	Applicable EU-regulation according to SR 0.748.127.192.68 Swiss Aviation Act, LFG, SR 748.0	
Addressee:	FOCA U-Space Services Prov U-Space Services Providers	iders Certification and Oversight Personnel
Document Status:	Approved by FOCA's Board of Enactment of current version Version First enactment	Directors 13.02.2023 1.0 13.02.2023, Version 1.0
Author:	FOCA	
Approval:	13.02.2023 / Board of Director	s

# **Table of Contents**

	Table	of Contents	2
1	D	ocument Editions	3
2	Ρ	reamble	4
	2.1	History	4
	2.2	FOCA Documentation on Certification and Oversight of USSPs	4
	2.3	Confidentiality	5
,3	R	egulatory Framework	6
	3.1	Scope of U-space Service Provision	6
	3.2	Regulatory Requirements for USSP and Certification / Oversight Thereof	7
4	TI	ne Swiss Competent Authority	9
	4.1	Definition	9
	4.2	Allocation of Responsibilities for Certification, Oversight and Enforcement	9
	4.3	Capabilities	9
	4.4	Interfaces with other civil competent authorities	. 10
5	С	ertification and Onboarding	. 11
	5.1	Certification Process	. 12
	5.1.1	Application for Certification	. 12
	5.1.2	Certification Activities by FOCA	. 12
	5.1.3	Roles and Responsibilities	. 14
	5.1.4	Issue of the Certificate	. 16
	5.1.5	Certification Fees	. 16
	5.1.6	Validity of the Certificate	. 16
	5.2	Onboarding	. 17
6	D	stribution / Administrative	. 18
	6.1	Evaluation and further Development of this Directive	. 18
	6.2	Distribution List	.18
	6.3	Administrative	18
7	Si	gnatures	19
8	G	lossary	20

# 1 Document Editions

Version	Status	Date of Issue	Author	Remarks
0.10	Draft	31.01.2023	FOCA / obs	Draft for approval
1.0	Released	13.02.2023	FOCA / AL	Approval

Notes:

- The initial issue (V1.0) of this directive is approved by and put into force through the management board of FOCA. Every major revision of this directive including new (or changed) requirements for the stakeholders will also be approved by the management board of FOCA. For such cases, a stakeholder involvement should be conducted. These versions of the directive will be numbered X.0.
- The approval of revisions based on minor changes is under the responsibility of the document owner and will be numbered X.1, X.2, X.3, ... For such cases, a stakeholder involvement will be conducted only in exceptional cases.
- <u>Links in blue</u> means that further material for FOCA internal use can be found in SOUP IA and GM.

## 2 Preamble

#### 2.1 History

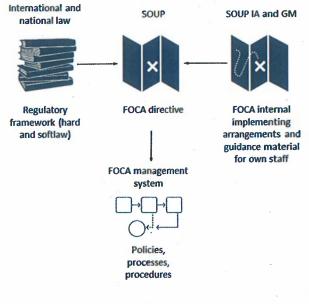
In April 2021, the European Commission adopted the U-space regulatory package aimed at supporting the safe, secure and efficient integration of UAS into the aviation system. It consisted of three Commission Implementing Regulations, (EU) <u>2021/664</u> on a regulatory framework for the U-space, (EU) <u>2021/665</u>, which amended (EU) <u>2017/373</u> with regards to requirements for providers of air traffic management/air navigation services and other air traffic management network functions in the U-space airspace designated in controlled airspace, and (EU) <u>2021/666</u> amending Regulation (EU) <u>923/2012</u> as regards requirements for manned aviation operating in U-space airspace.

This document is intended to provide the ground lying foundation for the certification, oversight and enforcement activities of U-space service providers (USSPs) under the supervision of the Federal Office of Civil Aviation (FOCA). FOCA's objective is to swiftly enable the introduction of the U-space Regulatory package, taking into account that work is still ongoing at international regulatory level and in view of the challenges related with the novelty of this topic for all those involved. For this reason, this directive should be seen as a 'living document', which will grow and be refined over time with experience and enriched by inputs from the USSPs. In this first version, the focus has been placed on organisational and certification aspects. Continuous oversight is being developed and will be described in the next version.

### 2.2 FOCA Documentation on Certification and Oversight of USSPs

The directive "Systemic Oversight on U-space Service Provision" (SOUP) describes the activities of FOCA as the Swiss competent authority in relation to certification, continuous oversight and enforcement on USSPs, as defined by European Commission (EU) / European Union Aviation Safety Agency (EASA) rules. The document does not cover neither regulatory tasks performed by FOCA<sup>1</sup> nor the tasks to be performed by the Member State or by FOCA acting as the Member State<sup>2</sup>.

With regard to the intended target audience, the following **family of SOUP documents** has been developed:



**SOUP** is a compendium describing the **obligations of FOCA** as competent authority and containing related provisions applicable to the USSPs, defining the interface between the different organizations. SOUP has links to the FOCA Management System and its processes. It is distributed to the USSPs and relevant stakeholders.

SOUP is complemented by **SOUP IA and GM** ("Implementing Arrangements and Guidance Material"), this being a FOCA **internal publication** providing directives and guidance for its certification and oversight personnel.

```
Notes:
```

- <sup>1</sup> These tasks can be recognised by the wording "... that/which the competent authority <u>has determined</u>" in the Implementing Regulation (EU) 2021/664, e.g. Art. 11(3b).
- <sup>2</sup> E.g. the task of designating an U-space airspace as indicated in Art. 2 of Implementing Regulation (EU) 2021/664, "1) 'U-space airspace' means a UAS geographical zone <u>designated by Member States</u> [...]"

- The safety oversight of U-space-related tasks for air navigation service providers (ANSP) is out
  of scope of this directive and it is covered in the directive ANS 2007-01 "Safety Oversight in
  ANS Provision".
- Unless otherwise specified, all processes/instructions described in this directive are mandatory, except when preceded by the verb should.

## 2.3 Confidentiality

The SOUP underlies the Federal Act on Freedom of Information in the Administration (BGÖ, <u>SR 152.3</u>). ( $\rightarrow$  <u>IW 001d/f</u> and <u>IW 008d/f</u>)

### SPACE INTENTIONALLY LEFT BLANK

# 3 Regulatory Framework

### 3.1 Scope of U-space Service Provision

Implementing Regulation (EU) <u>2021/664</u> includes a set of standards for the safe operations of (Unmanned Aircraft Systems (UASs) in the U-space airspace and for the safe integration of UASs into the aviation system. This is achieved in particular through the use of mandatory digital services by UAS operators, provided by certified service providers, in airspace designated as U-space. In particular, these new services will allow UAS operators to have a global view of manned and unmanned air traffic in a given area. Also, to be able to plan their activities in advance and ensure that they do not conflict with other UAS operations. UAS operators will be able to have numerical access to geographical zones where UAS operations are subject to conditions.

The Implementing Regulation (EU) <u>2021/664</u> and its Acceptable Means of Compliance and Guidance Material (AMC/GM) define the following concepts, whereas only USSP and their services are in the scope of the present document:

- The "U-space airspace", meaning a UAS geographical zone designated by Member States, where UAS operations are only allowed to take place with the support of U-space services.
- The U-space Service Providers (USSPs), meaning an organisation that is certified by the relevant competent authority to provide U-space services in a U-space airspace.
- The "U-space service", meaning a service provided by USSPs relying on digital services and automation of functions designed to support safe, secure and efficient access to U-space airspace for a large number of UAS.
- The "Common Information Services" (CIS), means a service consisting in the dissemination of static and dynamic data to enable the provision of U-space services for the management of traffic of unmanned aircraft. Switzerland has decided to allocate the provision of specific tasks of this service to different entities, among others Skyguide, U-space service providers, and FOCA itself.

According to Art. 3 of Implementing Regulation (EU) <u>2021/664</u>, UAS operations (see note below) in the U-space airspace shall be subject to at least the following mandatory U-space services (the provision cannot be limited to single services among these four):

- Network identification service, allowing UAS to be identified remotely throughout the flight. Authorised persons (e.g. competent authorities, USSPs, ANSPs, UAS operators or the general public) can see the flight information in real time. The data available are: the UAS operator's registration number, the geographical position of the remote pilot and flight data (including speed, altitude and route).
- Geo-awareness service, providing UAS operators with information on current operating conditions and permanent (static) and temporary (dynamic) restrictions applicable to certain areas of the U-space.
- UAS flight authorisation service, being a pre-flight tool that prevents UAS from intersecting in time and location and thus limits the risk of collision between several UASs. This service grants the UAS operator a flight authorisation for each planned flight and sets the flight conditions to be respected. If another operation is also planned in the same area at the same time, operators are asked to modify their flight plan. The service does not replace the operating authorisations to be issued by the competent authorities such as the FOCA, Skyguide or the aerodrome managers.
- Traffic information service, providing UAS operators with information on air traffic (manned and unmanned) that may be in the vicinity of the UAS position or planned route. The data for this service comes from three different channels. The first set of data comes from the ANSP when the U-space is in controlled airspace. The second comes directly from the manned aircraft, when

it is not provided with an air traffic control service by the ANSP. Indeed, Implementing Regulation (EU) <u>2021/666</u> requires these airspace actors to make themselves permanently electronically perceptible ("e-conspicuity"). The third set of data corresponds to the information perceived by the network identification service and therefore provides the position of UAS.

#### Note:

Art. 3(1) of Implementing Regulation (EU) <u>2021/664</u>, expressly excludes model aircraft associations and clubs and also UAS operators operating with a UAS with a maximum take-off weight of less than 250 grams flying in visual line of sight (VLOS) from applying the U-space requirements. In addition, military and operations falling under state aircraft are also not subject to the requirements of the U-space regulatory framework as they are excluded from the scope of the regulations

In accordance with Art. 3(3) of Implementing Regulation (EU) <u>2021/664</u>, in order to ensure the safe operation in a given U-space airspace and with the support of a risk assessment, FOCA can require that other U-space services are mandatory, such as a weather information service and a conformance monitoring service. The weather information service provides UAS operators with weather information before or during flight. The compliance monitoring service allows UAS operators to check whether they meet the requirements of Implementing Regulation (EU) <u>2021/664</u>. They are informed if the requirements are not met. The same applies to the flight authorisation previously issued to them by the UAS flight authorisation service. If a deviation from the flight authorisation is detected, all relevant actors are notified: other UAS operators operating in the vicinity, USSPs and the air traffic control service (ATC). The decision, whether these additional services need to be provided in Swiss U-space(s) is out of scope of the present document.

#### Note:

According to Art. 4 of Implementing Regulation (EU) <u>2021/664</u>, where a Member State designates a U-space airspace within controlled airspace, it shall ensure that the dynamic reconfiguration of the airspace within that U-space airspace as laid down in ATS.TR.237 of Implementing Regulation (EU) <u>2021/665</u> amending Regulation (EU) <u>2017/373</u> is applied in order to make sure that manned aircraft which are provided with an ATC service and UAS remain segregated. The oversight on this ATC service, being a service provided by an ANSP, is conducted by FOCA in accordance with the directive ANS 2007-01 "Safety Oversight in ANS Provision".

### 3.2 Regulatory Requirements for USSP and Certification / Oversight Thereof

The direct legal basis for FOCA conducting any oversight activities is stipulated in Swiss Aviation Law (Art. 3 LFG, <u>SR 748.0</u>). The main requirements for USSPs and certification and oversight thereof are stipulated in the Implementing Regulation (EU) <u>2021/664</u> (see note below). Furthermore, alternative means of compliance (AltMOC) may be used by both USSPs and FOCA to establish compliance with EU/EASA rules ( $\rightarrow$  FOCA internal process <u>F-018</u>).

Notes:

- For the purposes of Art. 2 of Implementing Regulation (EU) <u>2021/664</u>, the definitions in Implementing Regulation (EU) No <u>923/2012</u>, Implementing Regulation (EU) <u>2017/373</u>, Delegated Regulation (EU) <u>2019/945</u> and Implementing Regulation (EU) <u>2019/947</u> applicable.
- Art. 15 of Implementing Regulation (EU) <u>2021/664</u> makes references to Implementing Regulation (EU) <u>2017/373</u>. For this latter AMC/GM are available as well. However, AMC/GM to Implementing Regulation (EU) <u>2017/373</u> are not applicable to USSPs and are superseded by AMC/GM of Implementing Regulation (EU) <u>2021/664</u><sup>3</sup>.

<sup>&</sup>lt;sup>3</sup> Cf. Implementing Regulation (EU) 2021/664, GM1 Art. 15(1) Conditions for obtaining a certificate.

When FOCA itself uses AltMOC to achieve compliance with the applicable requirements of Implementing Regulation (EU) 2021/664, it shall make them available to all USSPs under its oversight and notify the Agency. AltMoC both by the (Swiss) industry and FOCA are published on the dedicated FOCA webpage (→ <u>FOCA AltMoC</u>).

### SPACE INTENTIONALLY LEFT BLANK

# 4 The Swiss Competent Authority

### 4.1 Definition

Within the framework of the U-space regulatory package, a competent authority is defined as that entity responsible for the tasks defined in Art. 17 and 18 of Implementing Regulation (EU) <u>2021/664</u>. FOCA is the sole civil competent authority for USSPs with principal place of operation in Switzerland.

Within the scope of the present directive, the tasks of FOCA are:

- establish, maintain and make available a registration system for certified USSPs (Art 18 a)
- define the manner for natural and legal persons to apply for a USSP certificate (Art. 18 e)
- establish a certification and continuous risk-based oversight programme, including the monitoring of the operational and financial performance, commensurate with the risk associated with the services being provided by the USSP under their oversight responsibility (Art. 18 g)
- carry out audits, assessments, investigations and inspections of the USSPs as established in the oversight programme (Art. 18 i)
- regularly monitor and assess the levels of safety performance and use the results of the monitoring of safety performance in particular within their risk-based oversight (Art. 18 k)
- take any action required to contribute to the safe, efficient and secure operations of UAS in the U-space airspace under their responsibility (Art. 17 [1c])
- taking or initiating any appropriate enforcement measures necessary to ensure that the USSPs under their oversight comply with the requirements of Implementing Regulation (EU) <u>2021/664</u> (Art. 17 [2]).

Notes:

- Out of scope of this directive are the tasks mentioned in Art. 18 (b), (c), (f), (h), (j), being of regulatory nature, rather than certification/oversight character.
- The General Secretariat of the Federal Department of the Environment, Transport, Energy and Communications (DETEC) in particular through its specialized agency "Safety Office" (Safety Office website) and the Swiss Federal Audit Office ("Eidgenössische Finanzkontrolle", → <u>EFK</u>) are responsible at national level for the supervision over FOCA, ensuring that it exerts its powers impartially and independently. Transparency is given, towards the Member State, by the fact that every audit/inspection report is sent to the DETEC "Safety Office", towards the public, by the BGÖ (→ Sect. 2.3).

### 4.2 Allocation of Responsibilities for Certification, Oversight and Enforcement

The overall accountability for all activities performed by FOCA in the area of U-space service provision lies with the <u>"Amtsleitung"</u> (Board of Directors). The broad set of functions of the Swiss competent authority spread over the responsibility fields of different parts of the FOCA organization ( $\rightarrow$  SOUP IA and GM).

Note:

 USSPs can address requests and questions to <u>ussp@bazl.admin.ch</u> and they will be transmitted to the responsible FOCA unit for treatment.

#### 4.3 Capabilities

Art. 17 of Implementing Regulation (EU) <u>2021/664</u> requires FOCA as competent authority to have the technical and operational capacity and expertise to fulfil their obligations. The Heads of the concerned sections are responsible:

- for employing personnel with sufficient knowledge, professional integrity, as well as experience and training to perform their allocated tasks.
- to have appropriately documented procedures, and adequate resources;
- to take any action required to contribute to the safe, efficient and secure operations of UAS in the U-space airspace under their responsibility.

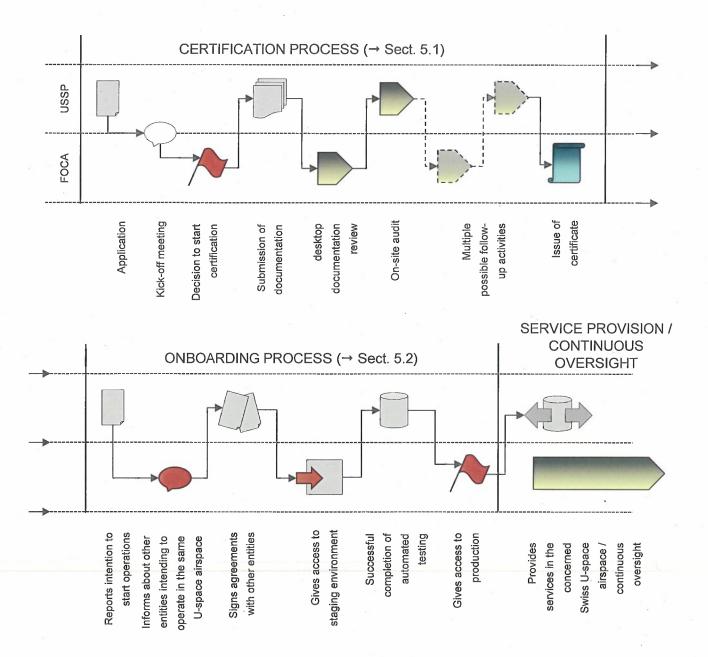
### 4.4 Interfaces with other civil competent authorities

Interfaces with other civil competent authorities will be established in the near future. This section is thus "work in progress".

#### SPACE INTENTIONALLY LEFT BLANK

# 5 Certification and Onboarding

To be permitted to operate, an USSP must pass two stages. In the first stage, the USSP is certified by its competent authority on the basis of Art. 15 of Implementing Regulation (EU) <u>2021/664</u>. This certifies that the USSP demonstrated the necessary capabilities, resources, and means to operate in a manner that is compliant with applicable regulatory requirements. The possibility to operate in a given State within the European Union – in this case within Switzerland - is granted in a second phase. For this the USSP has announced to the FOCA that it is ready to begin operations, that it has concluded the necessary arrangements with other entities and that it has demonstrated - through passing a series of tests - that it is able to fulfil the technical and performance requirements imposed by Implementing Regulation (EU) 2021/664 and specified by the competent authority for the specific U-space airspace the USSP intends to provide services within. This two-stage process also allows all USSPs certified in Switzerland or in another Member State to access the Swiss market having demonstrated that they meet the criteria and performance set by the FOCA. It is also intended to test the interoperability of the systems of all USSPs.



### 5.1 Certification Process

#### 5.1.1 Application for Certification

USSPs with principal place of business in Switzerland shall apply for a certificate to FOCA by means of the dedicated form<sup>4</sup> available on the FOCA website, signed by its accountable manager and submitted as PDF to ussp@bazl.admin.ch..

After receipt of the application, FOCA will arrange a kick-off meeting with the USSP to ensure alignment with the objectives and expectations. Depending on the level of maturity of the USSP, FOCA will decide whether it is reasonable to promptly start with the certification process. In the event of an ascertained low level of maturity, FOCA will advise the USSP to first build up its knowledge base prior to starting the certification process.

Note:

FOCA does not provide consultancy or training services in relation to the setting up of USSP operations or achieving the certification. In consideration of the available resources, FOCA's implementation support in relation to the understanding of selected regulatory requirements will be offered on a best effort basis. It is expected that USSP have gained a sound knowledge about the U-space regulatory package prior application for certification, either by means of participation to trainings (e.g. webinars) or through the membership of relevant communities.

### 5.1.2 Certification Activities by FOCA

After the kick-off meeting and if the FOCA considers the USSPs maturity in relation to the applicable regulatory requirements as sufficient, the USSP will be requested to submit the complete documentation demonstrating compliance with Implementing Regulation (EU) <u>2021/664</u> and relevant industry standards<sup>5</sup>. The documentation shall be accompanied by a compliance matrix, providing traceability to the USSP documents and their relevant sections which demonstrate compliance. The documentation shall also contain a concept of operations<sup>6</sup>, a safety risk assessment as well as a security risk assessment for the USSP's specific operations <sup>7</sup>. For the verification of the USSP's economic viability FOCA requires an audit report ("Revisionsstellenbericht") of the previous year (if available), a business plan, a budget and a cash flow planning (in case of a company providing other services / products in addition to being an USSP, both the consolidated view for the whole company and for the USSP domain) and an insurance cover.

Notes:

 A template of a compliance matrix is available at FOCA on request. Should an USSP decide to use its own format for a compliance matrix, it should take the following expectations into account. Evidence of compliance shall take place (i) for every relevant element of an article and (ii) traceability to the USSP's documentation shall be ensured at the level of single sections. Whenever possible hyperlinks should be used.

Example for (i) with reference to Art. 15(e) of Implementing Regulation (EU) <u>2021/664</u>: For each of the five underlined elements of ATM/ANS.OR.B.005 (a)(1) FOCA expects to see evidence of compliance. "A service provider shall <u>implement</u> and <u>maintain</u> a management system that includes: (1) clearly defined <u>lines of responsibility</u> and <u>accountability</u> throughout its organisation, including a direct accountability of the accountable manager";

<sup>&</sup>lt;sup>4</sup> Cf. GM1 Article 14(6). All AMC/GM cited in this chapter refers to Implementing Regulation (EU) <u>2021/664</u>, unless otherwise specified.

<sup>&</sup>lt;sup>5</sup> A list of documents that should be submitted for certification can be found in GM7 Art.15(1) Conditions for obtaining a certification – Certification Data and Evidence)

<sup>&</sup>lt;sup>6</sup> Cf. GM8 Art.15(1) Conditions for obtaining a certification – Concept of Operations (CONOPS) - Content

<sup>&</sup>lt;sup>7</sup> Cf. GM10 Art.15(1)(b) Conditions for obtaining a certificate – Security Risk Assessment

Example for (ii) with reference to Art. 15(e) of Implementing Regulation (EU) 2021/664: For each of the five underlined elements of ATM/ANS.OR.B.005 (a)(1) FOCA expects evidence of compliance to be traced up to the section in the USSPs documentation.

E.g. Evidence for "maintain a management system"  $\rightarrow$  Doc X, Sect. 5.2 (and not only Doc X) E.g. Evidence for "line of responsibility"  $\rightarrow$  Doc Y, Sect. 1.4.2 (and not only Doc Y)

The certification process itself consists of two phases and takes an evidence-based approach (i.a. the audit should provide conclusions which can be supported by factual evidence)<sup>8</sup>.

- The first phase takes place in form of a desktop review, which consist of a desktop ("off-site") review of the documentation submitted by the USSP. The main aim is to verify the understanding of the requirements by the USSP and it. This phase covers the compliance in terms of safety and security, as well as a verification of the economic viability of the USSP.
- The second phase consists of an on-site audit. Through dedicated interviews with the USSP
  personnel at the USSP premises and on-site verification of additional evidence, FOCA checks
  that the intentions stated in the documentation provided for the desktop audit are being
  implemented and that they are effective in meeting the regulatory requirements

After completion of these two phases, the USSP is provided with written feedback by FOCA about the applicable regulatory requirements where compliance could have not been demonstrated by the USSP and which thus need to be revised (unless the USSP decides not to continue the certification process) and resubmitted for verification (this being represented by the dashed line in the Fig. in Sect. 5.1.3). This follow-up verification can take place either in desktop form or by means of interviews on-site, at the discretion of the audit team.

#### Notes:

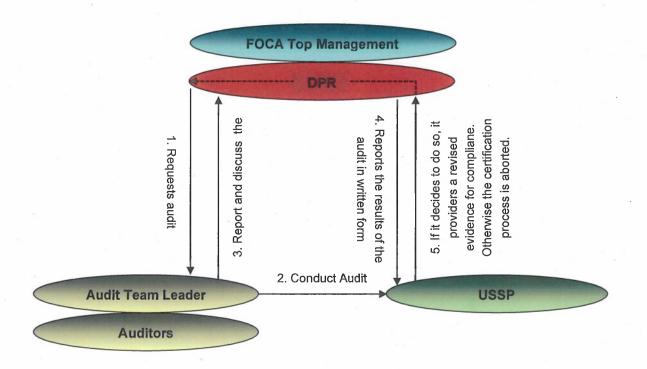
- An ISO 9001 quality management certificate, issued by an appropriately accredited organisation, should be considered a sufficient means of compliance<sup>9</sup>. In such a case, the applicant should accept the disclosure of the documentation related to the certification to the FOCA. Experience in other aviation domains shows however, that the level of detail of aviation regulations exceeds in part that of ISO 9001, thus still requiring an organization to provide the competent authority with additional pieces of evidences. Also in presence of an ISO 9001 certificate, the USSP is requested to provide a compliance matrix according to Implementing Regulation <u>2021/664</u> to FOCA.
- Compliance with all EASA acceptable means of compliance (AMC) has to be demonstrated, in addition to compliance with the requirements. In regard to guidance material (GM) no compliance demonstration is expected. Additional explanation on AMC can be found on the EASA website (→ <u>EASA AMC</u>) Where an AMC exists, an USSP may chose alternative means to comply with the rule (so called Alternative Means of Compliance, AltMoC). In this case, however, it loses the presumption of compliance provided by the EASA AMC and needs to demonstrate to competent authorities (i.e. both FOCA and EASA) that it does comply with the law. Requests for an Alternative Means of Compliance (AltMoC) shall be filed to ussp@bazl.admin.ch. In order to have the smoothest and fastest certification possible and in view of the novelty in this area, FOCA does not recommend the use of AltMoC during certification.
- Art. 15 of Implementing Regulation (EU) <u>2021/664</u>, makes references to Regulation (EU) No <u>2017/373</u>. For this latter AMC/GM are available as well. However, AMC/GM to Implementing Regulation (EU) <u>2017/373</u> are not applicable to USSPs and are replaced by AMC/GM of Implementing Regulation (EU) <u>2021/664</u> instead<sup>10</sup>.

<sup>&</sup>lt;sup>8</sup> Cf. GM10 Art.15(1) Conditions for obtaining a certificate – Approach to Certification

<sup>&</sup>lt;sup>9</sup> Cf. AMC2 Article 15(1)(3) Conditions for obtaining a certificate – Management System ISO <sup>10</sup> Cf. GM1 Art. 15(1) Conditions for obtaining a certificate.

- To facilitate its own work it is recommended that USSPs make use of the EASA easy access rules (→ <u>EASA website</u>), which collect both the Implementing Rule (e.g. Implementing Regulation (EU) 2021/664, Implementing Regulation (<u>EU</u>) 2017/373) and the related acceptable means of compliance (AMC) and guidance material (GM).
- USSPs should be aware that some relevant AMCs during the certification process require prior coordination and agreement with the competent authority (e.g. AMC2 Article 15(1)(b) Conditions for obtaining a certificate – Information Security Assurance<sup>11</sup>) USSPs are therefore requested to proactively approach FOCA regarding these points as soon as possible.

### 5.1.3 Roles and Responsibilities



FOCA Top Management	<ul> <li>Overall accountability for all certification activities</li> <li>Accountable for meeting the regulatory requirements applicable to FOCA as competent authority</li> <li>Responsible for providing sufficient resources to conduct the certification audit</li> <li>Responsible for issuing the certificate, once the certification audit has been successfully completed</li> </ul>
Designated Point of Responsibility (DPR)	<ul> <li>Acts as client, requesting a certification activity (initial activity or follow-up activities in case of missing evidence of conformity)</li> <li>Receives feedback by the audit team leader on the</li> </ul>
	audit (in particular applicable regulatory requirements where compliance could have not been demonstrated by the USSP)
	<ul> <li>Communicates in written form, supported by the Audit Team Leader, the result of the audit, in particular on</li> </ul>

<sup>11</sup> Cf. "(c) When a risk needs to be mitigated, the applicant should provide evidence that [...] <u>as agreed with the competent authority</u>".

	<ul> <li>the regulatory requirements requiring additional evidence to prove compliance.</li> <li>Once the certification audit has been successfully completed, reports to the FOCA Top Management that a certificate can be issued</li> </ul>
Audit Manager	<ul> <li>Manages the arrangements with qualified entities (wherever they are used)</li> <li>Supports the DPR in the course of the evaluation of the feedback provided by the audit team</li> </ul>
Audit Team Leader	<ul> <li>Responsible for preparing the certificate</li> <li>Responsible for conducting the certification audit as mandated by the DPR and to report the results thereof to him/her (conformities and non-conformities with the applicable regulatory requirements by the USSP).</li> </ul>
	<ul> <li>Among other he/she is responsible to define which functions, processes, products, activities or arrangements are to be verified. He/she shall ensure that all documents collected during the oversight activity are stored in the dossier in the FOCA's</li> </ul>
	<ul> <li>document management system GEVER.</li> <li>Acts as SPOC towards the USSP in relation to questions on the conduct of the audit.</li> <li>Supports the DPR in the communication of the results of the audit to the USSP.</li> </ul>
Auditors (forming the audit team)	<ul> <li>Together with the audit team leader, plan and conduct the audit.</li> <li>Support the audit team leader in the production of a feedback to the DPR</li> </ul>
Observer (from FOCA or external organization empowered by FOCA) <sup>12</sup>	<ul> <li>May accompany the audit team but is not part of it</li> <li>Must not influence or interfere with the conduct of the audit</li> <li>Provides the DPR with a feedback about the audit (lessons learnt, quality improvement)</li> </ul>
Guide (from the audited organization) <sup>13</sup>	<ul> <li>May accompany the audit team but is not part of it</li> <li>It supports the audit in terms of "logistics" (e.g. organizes documents on the "I-Owe-you" [IOU] list, organizes additional interviewees on request of the audit team leader, )</li> </ul>
	<ul> <li>The guide must not influence or interfere with the conduct of the audit. In particular it must not act as an interviewee, from a content point of view (e.g. answering questions on behalf of the interviewees,)</li> </ul>
Advisor(s)	<ul> <li>Subject matter experts that may support the audit/inspection team with specific knowledge in the audited/inspected area</li> <li>May be FOCA internal or external. As long as the audit/inspection team consists at least of one qualified auditor, the external expert/advisor does not need to be a qualified auditor/inspector.</li> </ul>

 <sup>&</sup>lt;sup>12</sup> E.g. other FOCA employees (e.g. in training), Military Aviation employees, DETEC Safety Office, ...
 <sup>13</sup> E.g. personnel from the USSP internal audit team

Audited organization	 Consist of interviewees determined by the FOCA audit
	team or proposed by the USSP and accepted by the
	audit team leader during the preparation of the audit

Notes:

- The DPR shall be reached at the following email address: ussp@bazl.admin.ch.
- In case of interviews, FOCA will take care that the number of auditors and the number of observers in interviews is kept to a minimum (for FOCA observers: only one per interview as a general rule). One guide form the audited organization is allowed.

#### 5.1.4 Issue of the Certificate

A certificate is issued if the USSP has demonstrated that it can meet the requirements laid down in Art. 15 of Implementing Regulation (EU) <u>2021/664</u>. This does not mean, that an USSP shall demonstrate compliance with Art. 15 only. Compliance with all articles (incl. Annexes) applicable to an USSP contained in Implementing Regulation (EU) <u>2021/664</u> needs to be demonstrated during the certification process.

The certificate will be issued according to FOCA internal instruction ( $\rightarrow$  <u>IW 12d</u>), taking Annex VI of Implementing Regulation (EU) <u>2021/664</u> into account.

### 5.1.5 Certification Fees

The certification fees are laid down in the "Verordnung über die Gebühren des Bundesamtes für Zivilluftfahrt" (<u>SR 748.112.11</u>, GebV-BAZL). A further amendment of the GebV-BAZL is planned to include a new specific legal basis for fees for the certification and supervision of USSPs.

Until the introduction of the new provisions of the GebV-BAZL on the certification, supervision and registration of U-space service providers, Articles 3 and 5 of the GebV-BAZL will apply. At FOCA the following hourly rate is applied:

- Inspector: CHF 180.00
- Lawyer: CHF 160.00

A ceiling of CHF 170'000 is foreseen for certification, while that for continuous oversight is CHF 50'000 for each surveillance activity.

### 5.1.6 Validity of the Certificate

An USSP certificate has an unlimited time validity (i.e. no recertification is foreseen). It remains valid as long as the holder of the certificate complies with the relevant requirements set out in Implementing Regulation (EU) <u>2021/664</u>.

In accordance with Art. 16 of Implementing Regulation (EU) <u>2021/664</u> it shall cease to be valid if the holder of the certificate has not started operations within 6 months after the certificate was issued or if it has ceased operations for more than 12 consecutive months. Furthermore, FOCA can amend, suspend, limit or revoke the certificate as a result of an assessment of the operational and financial performance of an USSP under its responsibility.

### 5.2 Onboarding

An USSP, irrespectively of whether it has been certified by FOCA or by other European competent authorities, has to notify to ussp@bazl.admin.ch when it considers to be ready for operations. FOCA will put the USSP in contact with all other parties (e.g. ANSP, other USSPs, ...) which it needs to have arrangements in place with, according to Art. 7(3) of Implementing Regulation (EU) <u>2021/664</u>.

FOCA will also grant an authorisation token giving access to the USSPs' shared staging environment.

Once the automated tests are passed and once evidence of the arrangements have been provided to FOCA, FOCA will confirm that service provision is possible and will provide an authorization token giving access to the USSPs' shared production environment, thus giving the permission to the USSP to provide its services in the concerned U-space airspace.

# 6 Distribution / Administrative

## 6.1 Evaluation and further Development of this Directive

This directive will be checked once per year (latest by 15.12.) by the DPR for:

- Completeness
- Possible reductions
- Correctness

### 6.2 Distribution List

Organization	Addressee	Media
FOCA	Director General Board of Directors ("Amtsleitung") Head of Section Air Navigation Services (SIFS) Co-Head of Section Economic Affairs (LEWI) Head of Section Strategy and Innovation (LESI) Co-Head of Section UAS Authorisation and Oversight (UAS) Head of Section Compliance, Coordination, Harmonisation (CKH) Head of Section Airspace (SILR) Head of Section Security (SISE) All involved Oversight Personnel	PDF PDF PDF PDF PDF PDF PDF PDF PDF PDF
DETEC	Safety Office	PDF
Military Aviation Authority	Head of MAA	PDF

# 6.3 Administrative

Contact	Stefano Oberti Head of Air Navigation Services Federal Department of the Environment, Transport, Energy and Communications DETEC Federal Office of Civil Aviation FOCA Safety Division - Infrastructure Papiermühlestrasse 172, CH-3063 Ittigen; Postal address: CH-3003 Bern Phone +41 (0)58 465 84 76 <u>stefano.oberti@bazl.admin.ch</u> <u>www.foca.admin.ch</u>		
---------	---	--	--

# 7 Signatures

Date: See front page.

### Federal Office of Civil Aviation

Martin Bernegger Director Safety Division - Infrastructure Approval

Stetano Oberti Head of Air Navigation Services Document Owner

# 8 Glossary

Remark: plural of abbreviation is given by adding an "s" after the abbreviation (e.g. one USSP, two USSPs)

AltMoC	Alternative Means of Compliance	
AMC	Acceptable Means of Compliance	
ANS	Air Navigation Services	
ANSP	Air Navigation Service Provider	
ATC	Air Traffic Control	
BGÖ	"Bundesgesetz über das Öffentlichkeitsprinzip der Verwaltung" (Federal	
	Act on Freedom of Information in the Administration)	
CA	Competent Authority	
СКН	FOCA's Section Compliance, Coordination, Harmonisation	
CIS	Common Information Services	
СМ	Compliance Matrix	
CONOPS	Concept of Operations	
DETEC	Federal Department of the Environment, Transport, Energy and	
	Communications	
DPR	Designated Point of Responsibility	
EFK	"Eidgenössische Finanzkontrolle" (Swiss Federal Audit Office)	
EASA	European Aviation Safety Agency	
EU	European Union	
FOCA	Federal Office of Civil Aviation	
GebV-BAZL	"Verordnung über die Gebühren des Bundesamtes für Zivilluftfahrt"	
	(Ordinance on the Fees of the Federal Office of Civil Aviation)	
GEVER	"Elektronische Geschäftsverwaltung" (FOCA's digital document system)	
GM	Guidance Material	
IA	Implementing Arrangements	
IOU	"I-Owe-You" (list with pending evidences from an audit)	
ISO	International Organization for Standardization	
IW .	"Interne Weisung" (FOCA internal directive)	
LESI	FOCA's Section Strategy and Innovation	
LEWI	FOCA's Section Economic Affairs	
LFG	"Bundesgesetz über die Luftfahrt" (Swiss Aviation Law)	
PDF	Portable Document Format	
SIFS	FOCA's Section Air Navigation Services	
SILR	FOCA's Section Airspace	
SISE	FOCA's Section Security	
SOUP	Systemic Oversight on U-space Service Provision	
UAS	Unmanned Aircraft System	
UAS	FOCA's Section UAS Authorisation and Oversight	
USSP	U-space Service Provider	
VLOS	Visual Line of Sight	