13527/2024/RLPCR

OVZ/13527/2024

Air Navigation Services
of the Czech Republic

Meteorological information delivery Contract

„Delivery of meteorological information from the lightning detection network (Part no. 2)"

concluded pursuant to Section 1746, paragraph 2 of the Act No 89/2012 Coll., Civil Code, as amended (hereinafter referred to as the "**Civil Code**")

(hereinafter referred to as the "**Contract**")

1. Parties

Air Navigation Services of the Czech Republic (ANS CR)
A state enterprise incorporated under the laws of the Czech Republic,
having its registered office at: Navigační 787, 252 61 Jeneč, Czech Republic
Represented by: Mr. Petr Fajtl, Executive Director of Operation Unit
Company Identification Number: 49710371
VAT Identification Number: CZ699004742
IBAN: CZ12 0300 1712 8000 0008 8153
SWIFT code: CEKOCZPP
Registered in the Commercial Register of the Municipal Court in Prague, Section A, Insert 10771

(hereinafter referred to as the "**Customer**")

and

OVE Service GmbH
a company incorporated under the laws of Austrian company with limited liability
having its registered office at Eschenbachgasse 9, 1010 Vienna, Austria
Company Identification Number: FN 409439 t
Represented by: Dipl.-Ing. Dr. Wolfgang Schulz
Bank account number: Bank Austria
IBAN: AT60 12000 10005519508
SWIFT code: BKAUATWW
VAT Identification Number: ATU68390109
Registered in Vienna / Austria

(hereinafter referred to as the ""**Provider**")

(the Customer and the Provider hereinafter jointly referred to as the "**Parties**" and each individually as a "**Party**")

2. Subject of the Contract

2.1 The subject of this Contract is to acquire a reliable source of lightning detection data covering Czech Republic and its near-neighboring areas. The Customer does need this information for ensuring flight navigation services and operation of ATM systems of ANS CR, including

integrated briefing systems. Detailed description of the subject of performance of the Contract is in Annex 1 to this Contract. (hereinafter referred to as "**delivery**").

2.2   The Customer agrees to pay the Provider for the delivery the price as stated in Article 3 of this Contract.

3.   Price and Payment Terms

3.1   The total price of the delivery specified in Article 2.1 of this Contract shall be agreed by the Parties as a fixed price and shall be as follows:

<div align="center">

EUR 2.075,- per Month – 124.500,- Total* exclusive of VAT

(in word: [twothausendseventyfive per Month, onehundredtwentyfourthousendfivehundred Total* EUR exclusive of VAT)

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3.2   The monthly payment for delivery under Article 2.1 of this Contract shall be 1/60 of the total price.

3.3   The price for the delivery under this Contract shall be determined by agreement between the Parties in accordance with the Act on Prices 526/1990 Coll. The total price shall be final and shall include all costs, charges and all other expenses provided in connection with the delivery by the Provider.

3.4   Payments by the Customer shall be made on the basis of invoices issued by the Provider on the 1st day of the given calendar month. The invoice shall be payable within thirty (30) days after receipt by the Customer.

3.5   Each invoice, marked with the Customer contract number, which is located in the heading of this Contract must be sent in written form on the address of the Customer as stated in the Article 1 of this Contract or via email from the Provider´s email address ███████ to the Customer´s email address fakturace@ans.cz, otherwise it shall be returned to the Provider. The invoice shall be payable within thirty (30) days after receipt by the Customer.

3.6   In the case of payments made between banks located in different countries, such payments will be made by SEPA payment or (where execution by SEPA payment is not possible) the payment of bank charges for international payments will be split SHA, i.e. each party will bear the bank charges of its bank.

3.7   The Customer may return an invoice if it contains inaccurate or incomplete information or if the price is incorrect. Such return must be made by the due date of the invoice. In such event, the Provider shall issue a new invoice or correct the original invoice and fix a new due date.

3.8   Any change of the total price has to be performed by a written addendum concluded by both Parties in accordance with the Act no. 134/2016 Coll, the Public Procurement Act, as amended (hereinafter referred to as the "**Public Procurement Act**").

4.   Taxes

4.1   The Provider declares that its domicile is AUSTRIA/VIENNA.

4.2   The Customer declares that its domicile is the Czech Republic.

4.3   The Contract price has been calculated and is expressed including all taxes, duties and charges, excluding of Czech VAT, which if any, shall be paid by the Client.

4.4   All terms of payment according to the Contract shall be subject to the tax laws of the Czech Republic and Double Taxation Agreement between the Czech Republic and Austria.

4.5   The Customer is not responsible for any Provider's obligations to tax offices of the Czech Republic.

5.   Place of performance

5.1   The place of performance of this Contract shall be the registered office of the Customer - remote electronic access.

6.   Liability

6.1   The Customer shall have the right to claim about any defects in the quality of the delivery provided under this Contract. The notification of the complaint may be made by e-mail.

6.2   The Provider is obliged to remedy the claimed defect without undue delay and free of charge.

6.3   Unless stated otherwise in this Contract the liability for defects follows the Section of the Civil Code.

7.   Provider´s obligation

7.1   The Provider agrees to provide the delivery in an orderly manner and in accordance with applicable standards and regulations that apply to type of activity.

7.2   The specific obligations for providing of the delivery are set out in Annex 1 to this Contract.

7.3   The Provider is obliged to inform the Customer immediately of all facts that may affect the subject of performance in a proper and timely manner.

7.4   Any damages resulting from violation of these standards and regulations by the Provider shall be borne by the Provider.

8.   Customer´s obligation

8.1   The Customer shall provide all cooperation necessary for the due performance of the Contract by the Provider.

8.2   The Customer shall provide the Provider with necessary assistance upon request.

8.3   The Customer is obliged to inform the Provider immediately of all facts that may affect the subject of performance in a proper and timely manner.

9.   Contractual penalties

9.1   In the case of a breach of contractual obligations, the Parties shall agree on a contractual penalty.

9.2   In the event of the Provider´s delay in performance under this Contract exceeding 7 days, the Customer shall be entitled to claim a contractual penalty of 0,05 % of the annual price for each additional day of delay.

9.3   Contractual penalties shall be due and payable within thirty (30) days from the date on which a demand for their payment issued by the entitled Party is delivered to the liable Party.

9.4   The Parties agree that the provisions on contractual penalties shall be without prejudice to the right to compensation for damages arising from the breach of the obligation to which the contractual penalty relates, and that the right to compensation for damages may be claimed independently of the contractual penalty and in full.

10. Miscellaneous

10.1 The Provider declares that it is insured against liability for damage caused by his activities to other persons.

10.2 By signing this Contract the Provider acknowledges that it is not authorized to disclose or disseminate any information which could affect the security of civil aviation, namely due to requirements for maintaining security in civil aviation resulting from the relevant legislation (in particular the Aviation Regulation L17) and imposing on air navigation service providers to take appropriate actions as a base to provide safeguarding of civil aviation against acts of unlawful interference. Particularly, the Provider shall not anyhow reproduce and redistribute any information acquired in connection with the performance thereof.

10.3 <u>Personal data protection</u>

The Customer and the Provider shall comply with personal data protection rules pursuant to Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), i.e. GDPR Regulation, and pursuant to other generally binding legal regulations on personal data protection. More information on data protection on the part of the Customer is available on https://www.ans.cz/categorysb?CatCode=A6

10.4 <u>Publication</u>

The Provider acknowledges that the Customer is bound to publish this Contract pursuant to Act No. 340/2015 Coll., on special conditions of effect of some contracts, publishing of those contracts and the register of contracts (the Contracts Register Act), as amended and Public Procurement Act. The Provider further acknowledges that the Customer is bound to provide information according to Act No. 106/1999 Coll., on free access to information, as amended.

10.5 Contact persons for the purposes of this Contract are as follows:

██ ██ ████ ████ ██ ████ ██████

██ ██ ████ ████ ██ ██████

The contact persons as stated above may provide the other Party with the list of further contact persons or its amendment. A list of designated contacts shall be sent by electronic (digital) means, such are an e-mail message, where attachments shall be converted to pdf format and signed by a recognized electronic signature according to Act No. 297/2016 Coll., on services creating confidence in electronic transactions, as amended, or the data box or by paper-based mail via a postal licence holder.

11. Term

11.1 This Contract is concluded for a definite period of time, from the effective date of this Contract until 31st December 2029.

11.2 This Contract may be terminated by mutual written agreement of both Parties.

11.3 Either Party is entitled to terminate this Contract without giving a reason. Termination must be notified in written to the other Party. In such a case the force and effect of the Contract shall expire 3 (three) months upon the delivery of the written notice to the other Party.

12. Termination

12.1 Both Parties declare that in the event of non - performance of mutual obligations they will use all available means to achieve factual remedy.

12.2 In the event that remedy cannot be reached in an amicable way, either Party is entitled to terminate the Contract if the other Party materially breaches its obligations under the Contract. The termination shall be made in writing including the reasons.

12.3 The Customer may terminate this Contract if the Provider does not perform the delivery in accordance with the Contract and/or significantly neglects to perform its obligations. The Customer considers the following actions to be a material breach of the Contract providing reason for immediate termination:

12.3.1. delay in performance longer than 30 days, or

12.3.2. repeated (i.e. more than twice) breach of obligations under Article 7 hereof.

12.4 Either Party shall be entitled to terminate this Contract if the other Party is bankrupt as defined in its national law.

12.5 The Provider shall be entitled to terminate this Contract if the Customer is in default of payment of any invoice for more than thirty (30) days.

12.6 Termination shall take effect on the date of delivery of the written notice to the other Party.

12.7 In case of the Contract termination, any claims of both Parties shall be settled so as to avoid any undue enrichment for either Party, the Parties will try to establish by mutual agreement a liquidation settlement; failure such an agreement, provisions of Article 13 of this Contract shall apply.

12.8 Termination from the present Contract shall not affect entitlements to contractual penalties and damages under this Contract which occur before any such withdrawal takes effect.

13. Dispute settlement

13.1 The Parties agree that all and any disputes arising from this Contract shall be settled by an amicable agreement. If no such agreement can be reached, such dispute shall be referred to an independent court.

13.2 This Contract is governed by laws and legal procedures of the Czech Republic.

13.3 All and any disputes arising from or related to this Contract shall be referred to a competent court in the Czech Republic. The Parties hereby agree that a court of Customer´s registered office shall be considered appropriate.

14. Force Majeure

14.1 The Parties agreed that they are not liable for failing to meet all or some of the provisions hereunder, if such failure was caused by an event of force majeure. However, the Party affected by an event of force majeure shall perform its obligations hereunder as soon as the effects of an event of force majeure cease. All the terms hereunder shall be postponed for a period equal to the time when an event of force majeure lasted. The Party affected by an event of force majeure shall notify the other Party as soon as possible after any occurrence thereof.

14.2 Should force majeure consequences last provably for more than three months, any of the Parties hereto is entitled to withdraw from this Contract and any Parties´ claims shall be settled in a way not to cause undue benefit to any Party hereto.

14.3 Termination of this Contract in accordance with the above will not affect the debts already payable between the Parties.

15. Final provisions

15.1 Both Parties declare that the individual Articles of this Contract are sufficient with regards to the requirements for forming a contractual relationship, that the contractual freedom of the Parties

has been used and that the Contract has been concluded in such a way that it is not to the debit of either Party. The Parties agree that this Contract shall be governed by Czech Law, namely the provisions of Civil Code.

15.2   This Contract shall not be modified or amended, except by written amendment signed by the authorized representatives of the Parties.

15.3   Both Parties declare that, regarding their own national regulations, they are fully entitled to sign the present Contract.

15.4   This Contract shall be valid upon signature by the Customer and the Provider and shall be effective from 1st January 2025.

15.5   **This Contract has been signed electronically, only in one electronic copy.**

15.6   The Annex below make an integral part of this Contract:

Annex 1 – Technical specification

…………………………………………

Customer
Mr. Petr Fajtl
Executive Director of Operation Unit
Air Navigation Services of the Czech Republic (ANS CR)
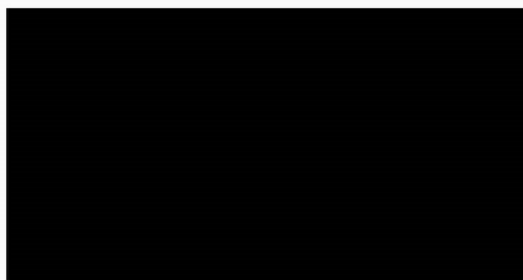
Provider
DI Dr. Wolfgang Schulz
OVE Service GmbH

Řízení letového provozu České republiky

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Lightning Detection Data for ANS CR
Technical Requirements

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1. Project Summary

Air Navigation Services of the Czech Republic (ANS CR) use various meteorological data as inputs for their technical systems used for both internal real-time displays (combined with air traffic situation) and web-based integrated briefing systems, serving pre-flight information for aviation personnel (aisview.rlp.cz, ibs.rlp.cz, meteo.rlp.cz or future "AIM Portal").

Lightning detection is one of important sources of meteorological information about position and intensity of dangerous weather phenomena, connected with significant convective cloudiness. For general overview, map positions of lightning strokes in a near-real-time (from the last few minutes) are combined with other pictorial meteorological data: weather radar and satellite imagery.

Geographical positions and timestamps of cloud-to-ground flashes are necessary information source for aviation applications.

2. Regulatory Requirements

As air navigation services are regulated by international law (ICAO and EU), each meteorological data input, used for aviation purposes, shall comply with the following requirements:

> Regulation (EU) 2018/1139 of the European Parliament and of the Council:
>
> Annex VIII Essential requirements for ATM/ANS and air traffic controllers
>
> 2. Services, 2.2.   Meteorological information
>
> 2.2.1.   The data used as a source for aeronautical meteorological information shall be of sufficient quality, complete and current.
>
> 2.2.2.   To the extent possible, aeronautical meteorological information shall be precise, complete, current, of adequate integrity and unambiguous in order to meet the needs of airspace users. Aeronautical meteorological information shall be from a legitimate source.
>
> 2.2.3.   The dissemination of such aeronautical meteorological information to airspace users shall be timely and use sufficiently reliable and expeditious means of communication protected from interference and corruption.

3. User Requirements

3.1 Requirements on Lightning Detection Data Delivery

LGH-SVC-01 Service Continuity:

Lightning data shall be available in a continuous operation H24 D365, regularly and without delays.

LGH-SVC-02 Service Availability:

Lightning data shall be available for a request/download initiated from customer side, at any time.

LGH-SVC-03 Service Reliability:

Long term data availability shall be better than 99% (of time covered with valid and actual data).

Long term data integrity (percentage of received data, which are non-corrupted, decodable) shall be 99.9% or better.

LGH-SVC-04 No-lightning handling:

In case of no lightning observed, a simple status or no-data-indication shall be available/delivered anyway (instead of real lightning positions) – in order to check the service and network availability.

LGH-SVC-05 Data buffering:

For situations with of short-term communication failure / non-availability of delivery system interface, a short data buffer (for at least 5 min.) shall be available on the standard request/download interface, in order to recover the temporary missing data during normal operation. When the download possibility is based on individual data files (not data streams), such files shall be time-stamped, in order to avoid their unintended overwriting by newer data.

LGH-SVC-06 Running short-term Archive

For cases of potential longer gaps / communication failures, longer term history (up to 30 days) shall be available - possibly using another data interface, not intended for regular operation.

3.2 Requirements on Communications

LGH-COM-01 Data Access:

Lightning data shall be available on Provider´s platform, accessible on User initiated requests ("pull" method). Alternatively, they can be also served actively by Provider ("push" method) to the User.

LGH-COM-02 Data Communication:

Lightning data delivery shall be done using public Internet, or via directly connected private TCP/IP networks, connected to ANS CR using dedicated firewalls / NIX hubs.

LGH-COM-03 Communication protocols:

Lightning data delivery shall use simple standard TCP/IP (Internet) protocols – e.g. FTP, SFTP, SCP, HTTP, HTTPS, TCP socket, web service or similar, defined by Provider.

LGH-COM-04 Communication timing:

Provider can prescribe the recommended time interval for data requests done by Customer. This interval ("update rate") shall be of maximum 60s (or shorter). Note: Support for shorter requesting /delivery periods is welcomed.

LGH-COM-05 Communication + Processing delays :

The delay between the observation time of lightning stroke/flash and the time of output lightning data availability for customer download/request ("total processing and communication delay") shall be maximum 30s (or shorter).

3.3 Requirements on Lightning Detection Network

LGH-NET-01 Lightning Data Coverage

Area of Interest for this Lightning Data Delivery is: Full area of Czech Republic, with overlaps into near-neighbouring areas (at least 100km outside Czech borders in any direction).

LGH- NET-02 Lightning Data Source

Lightning data detection network shall be wide-area, covering homogenously the area of interest, without any gaps/blind zones.

LGH- NET-03 Lightning Detection Efficiency

The probability of Cloud-Ground lightning detection (system efficiency) shall be 90% or better. The expected precision inside the Area of Interest shall be better than at least one of the following: 1km in 90% of cases, or 0.5 km in 50% of cases.

3.4 Requirements on Lightning Data

LGH- DAT-01 Lightning Data Format

Lightning data shall be delivered in non-encrypted, textual, directly readable format, enabling simple parsing of data items, without need of specific decoding procedures. Examples of acceptable formats can be: Text (structured) , CSV or similar, XML, JSON etc. In case of binary lightning data delivery, Provider shall offer in advance a sample computer source code needed for decoding of these data at User side, using some of common programming languages employed on LINUX platforms (as C, Python, Perl, PHP - but not Java, JavaScript).

LGH- DAT-02 Lightning Data Content

Each individual lightning stroke/flash detected inside the Area of Interest shall be represented in output data by at least the following data items:

- timestamp (in UTC" date, time, with precision in milliseconds),

- lightning position in geographical coordinates (WGS-84 or similar): Latitude, Longitude (with precision of at least 1/10000 of geographical degree = "4 decimals"),

- other possible lightning characteristics measured (e.g. lightning type, polarity, current etc.).

3.5 Requirements on Documentation

LGH-DOC-01

Available communication methods and protocols used for Lightning Data Delivery shall be described by Provider in details.

LGH-DOC-02

Lightning data formats shall be described by Provider in details, including description of individual data items with examples and ranges of their possible values.

LGH-DOC-03

Provider shall provide an offline sample of real historical lightning detection data in digital form, containing all possible combinations of data (in order to test the decoding and data processing mechanism of the User).

LGH-DOC-04 Lightning Detection Network Documentation

Provider shall provide the necessary technical documentation describing its lightning detection network principles, functionality and technical characteristics.

LGH-DOC-05 Lightning Detection Stations

Provider shall provide list of lightning detection stations used for this Data Delivery, including their positions/coordinates.

3.6 Requirements on Operations

LGH-OPS-01 Preparation for start of Data Delivery

Prior to the start of data delivery, Provider will enable the data interface for download/data requests, for purposes of preoperational testing of data communication settings of the User.

LGH-OPS-02 Operational Contacts

Provider shall provide contacts (telephone, e-mail), including their operating hours of:

> -- operating centre /technical support (to be used for operational matters), and

> -- administration (to be used for non-operational matters only).

3.7 Requirements on Licencing

LGH-LIC-01

Provider shall:

a) own / operate the lightning detection network, from which the data are delivered; or

b) have an agreement with the owner / operator of lightning detection network, approving provider the data delivery to ANS CR.

LGH-LIC-02

Provider authorizes ANS CZ to use and process the delivered lightning detection data into maps and other products, which can be further used in display systems, including web-based integrated briefing systems (e.g. aisview.rlp.cz, ibs.rlp.cz, meteo.rlp.cz, etc.) for aviation purposes, including purposes of general aviation and UAV/UAS. Such authorization excludes the redistribution of received raw input data of individual lightning strokes/flashes in near-real-time to third parties.