

Letecké opravovne Trenčín, Legionárska 160, 911 04Trenčín

## CALL OF TENDERS

**SUBJECT : Installation of a lighting system at the Trenčín airport for VFR flight conditions at night**

**Contact person: Juraj Lauš, laus @lotn.sk**

**Deadline for submitting offers: 28.02.2023 10:00,**

**envelope –„Tender LZTN lighting technique- DO NOT OPEN“ with supporting documents will be delivered to the registry address of the announcer at the LOTN a.s.**

### **Content of the offer:**

1. Extract from the commercial or trade register, authorization for activities in civil or military aviation or a similar document from EU countries, product approved by NSAT SR
2. 5 years reference history of at least 3 installations of similar systems in the EU
3. Affidavit letter of applicant declaring the non-existence of claims of the social insurance company, health insurance company and tax authorities in the applicant's country
4. A brief description of the system proposal
5. Detailed breakdown of the offer, but at least in those sections:
  - a. Administrative part
  - b. Building part
  - c. Technological part
  - d. Time needed for obtaining VFR permit/night from documentation approval by the building authority
6. The accepted applicant will be responsible for turnkey delivery - i.e. from the initial administrative actions to the approval of the system by the Transport Authority SR (NSAT) and As-built project documentation in a similar scope as for building permit. The training of personnel (max. 5 persons) for operation and the supply of manuals for the operation and maintenance of the equipment are included.
7. Prices in EUR without taxes.
8. Interested parties will have the opportunity to visit the airport and take a field tour based on the agreed date of the tour by the contact person.
9. Interested parties are not obliged to register with the announcer, as their chosen technical solution is their know-how and in the initial processes it will have to be approved by the Transport Authority SR (NSAT) in the construction processes.
10. The announcer will not charge any airport access fees during the construction process.
11. In case of any additional questions, the contact person will answer all registered applicants electronically
12. The opening of bids will take place on 28/02/2023 in meeting room No. 1 at the announcer.
13. Criteria for announcement
  - a. - 90% weight – price offer; lowest offer 90%
  - b. - 10% duration of implementation from obtaining a building permit - 1-2 months - 10%, 3-5 months - 5%, more months 0%. The winter months of December, January and February will not be included in the duration of the implementation.
  - c. The candidate with the highest number of points will be the winner

14. A contract will be concluded with the winning bidder, the draft of which will be processed by the bidder within 10 working days. Its substantial part will be the above-mentioned facts and:
  - a. penalty in case of failure to comply with point 13. B. - there will be a penalty of 2% of the price of the work for each started month of delay, but no more than 10%. In case of a delay of more than 2 months, the announcer will have the right to withdraw from the contract with payment of the approved scope of work.
  - b. In case the contractor applies his right to withdraw from the contract due to the non-approval of his solution by the Transport Authority SR (NSAT), the contractual penalty will be €5,000 for each month started from the signing of the contract until the day of withdrawal for the stated reason.
15. In the case of submitting an offer only in the minimum range (point 5) and obtaining the maximum number of points, the applicant must complete all the data listed in the chapter "Minimum range of the proposed airport ground lighting" and "Technical limitations" within 10 calendar days to the announcer.

### **Brief description:**

Trenčín Airport (hereinafter LZTN) has a runway (hereinafter VPD) measuring 2,000 m \* 30 meters in direction 04/22 and a system of taxiways (hereinafter TWY) and an apron (hereinafter APN). The total length of the TWY is approximately 2,000 meters with a width of 10.5 - 15 meters. APN is east of the threshold of VPD 22 with an area of approximately 10,000 m<sup>2</sup>. The mentioned areas are reinforced, the surface is concrete. The operator of the airport is the company Letecké opravovne Trenčín.

The permitted type of operation is only under ground visibility conditions (hereinafter VFR) and only during the day. Hours of operation are weekdays from 6:00 a.m. to 1:00 p.m. local time. The carrying capacity of the movement surfaces is sufficient for aircraft that can fly to category 2C airports (the limit of category 3C is the width of the VPD side strips).

As an airport operator, we need to obtain permission for VFR flights for LZTN even during the night.

The predominant wind direction is from the north side, i.e. more use is the direction of VPD 04, approach from the south. There are hangars of the local aero club southeast of the APN, the high-voltage connection is next to the tower building.



## **Minimum range of the proposed airport ground lighting:**

According to regulation L 14/I – Airports, Volume I – Design and operation of airports, the minimum requirements for LZTN lighting are:

1. Light descent systems - approach to the direction of VPD 04 – 1 PAPI system
2. Light descent systems - approach to the direction of VPD 22 – 1 PAPI system
3. VPD side signals - along the entire length and on both sides - overhead, omnidirectional
4. Threshold light partitions - both VPD 04 and 22 thresholds
5. Ending threshold bars - both VPD 04 and 22 thresholds
6. Lateral light signals for TWY
  - a. VPD threshold joint 22 - APN (inner side) - oblique TWY to VPD
7. Illuminated light sleeve
8. Power supplying airport lighting devices
  - a. Constant current sources (ZKP) powering all the above lighting systems
  - b. Location of ZKP - ground floor in the existing tower building
  - c. Tower-container telecommunications link
  - d. SZZ control - see below
  - e. Alternative source of energy in accordance with regulation L14, Volume I

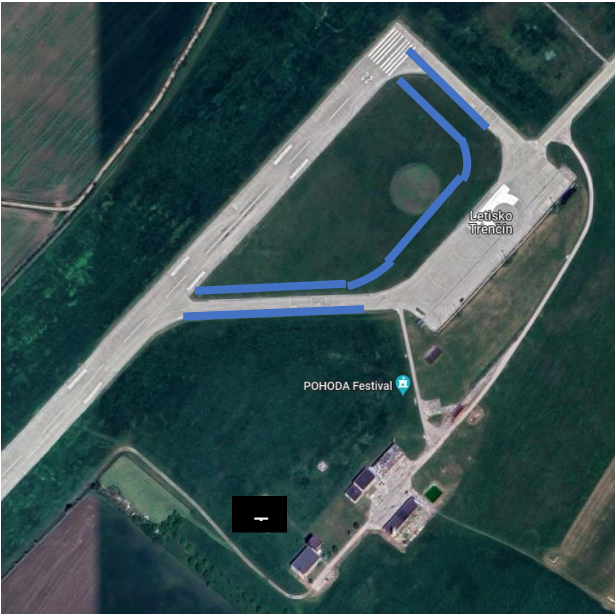
The airport light beacon is not considered.

## **Technical limitations:**

1. All above-ground lights must be collapsible due organizing summer festivals
2. The remaining parts of the lamps must be secured in such a way that their accidental damage is limited and they do not pose any danger of physical or electric injury
3. Place the primary cables in accordance with the manual DOC 9157, part 5, electrical systems
  - a. Storage of cables in trenches,
  - b. Crossing of reinforced surfaces - placement in protectors, which will be placed at least 15 cm below the level of movement surfaces in a concrete-encased gutter,
  - c. ZKP – with a permanent indication of the state of earth resistance in the control room,
  - d. Control of the system - on the tower and remote control up to a distance of 1000 m (airport operator's building) with the possibility of switching to a radio remote control system for the aircraft crew.
  - e. Type of light bulbs - will be halogen, medium luminosity,
4. All components of the electrical system must be approved for operation and installation in the Slovak Republic - by the Slovak Transport Authority,

- 5. Time restrictions: During the installation of the lighting system, the LZTN airport will be closed for a maximum of 28 calendar days at the disposal of the supplier of the lighting system
- 6. The implementation of the work must be completed by the end of 2023.
- 7. Warranty period: 5 years for work, 2 years for material, or according to the conditions of the manufacturers

**APN and a schematic indication of used TWY:**



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**Contact person can provide more detailed information.**