romatsa
administrația română a serviciilor de trafic aerian

ROMATSA

REQUEST FOR INFORMATION

FOR

REMOTE TOWER AT ARAD AIRPORT

Bucharest

March, 2025

TABLE OF CONTENT

1. INTRODUCTION

Romanian Air Traffic Services Administration (ROMATSA) is a self-financing public enterprise under coordination of Ministry of Transportation of Romania, being the national certified Air Navigation Services Provider (ANSP) responsible for provision of Air Traffic Services (ATS), consisting of Air Traffic Control Service (ATC Service), Flight Information Service (FIS) and Alerting Service (ALRS), provision of Communications, Navigation and Surveillance (CNS) services, Meteorological Service for International Air Navigation and of Aeronautical Information Services (AIS).

The air navigation services provided by ROMATSA are for:

- **en-route** air traffic control and information in the Bucharest FIR; now, these services are provided by the Regional Control Centre - ACC Bucharest;
- **terminal** (approach and aerodrome) air traffic control and information from 3 APPs, 16 conventional TWRs and one remote TWR.

In addition to its basic activities, ROMATSA also has the right to perform consulting activities and to provide services in its field of activity, as well as research and development activities, including the manufacturing and trading of products specific to the air traffic management field, by its own forces or in partnership with the internal or external economic entities.

ROMATSA is also part of the Danube FAB together with BULATSA.

2. NEW PROJECT - REMOTE TOWER FOR ARAD AIRPORT (RTWR ARAD)

At present, ROMATSA provides air traffic services at **Arad Airport** and within **Arad CTR (Control Zone)** through **TWR Arad – ATS Unit** located in a **conventional tower** at **Arad Airport**.
We are now in the process of launching a new project with the objective to implement a Remote Tower for Arad Airport. The main change to current operations proposed by this Remote Tower is that the ATCOs will be permanently relocated to a Remote Tower Module (RTM), which itself will be housed in another ROMATSA's location - CDZ Arad (a ROMATSA's facility situated in Arad City, at a distance of about 4 km from Arad Airport). This location (CDZ Arad) will become a Remote Tower Centre (RTC), because in the same facility there is another RTM dedicated for ATS service provision for AIBG Airport.

The project is called throughout this document "RTWR Arad".

Before launching any formal procedure, ROMATSA seeks for preliminary feedback from any interested economic operators on any relevant aspect of the project: organisation, timescale, operational goals, foreseen technical solutions and estimated costs. ROMATSA therefore decided to initiate information exchanges with remote tower system providers through the present Request for Information (RFI) which guarantees equal access to information, transparency and equity.

ROMATSA **invites suppliers to submit an information package** which will cover the technical, operational and safety aspects, containing their currently available technology, products and solution for the establishment of our RTWR Arad. The information provided in the initial technical information will be used in finalizing a **tender** for the procurement of RTWR Arad with the aim for contract signing within the fiscal year of 2025.

3. REQUEST FOR INFORMATION'S OBJECTIVES

This RFI aims at identifying remote tower system providers interested by the ROMATSA RTWR Arad project and its related tender/ contract and get their opinion and advice about it. Moreover, its purpose is also to identify the technologies and products available or announced on the market which may be beneficial to the project.

This RFI **is not a Call for Tender (CFT)** under Romanian public procurement rules, so neither ROMATSA, nor any economic operator will be committed by any information exchanged under this RFI umbrella.

Replies and potential subsequent discussions will only be used to further refine and focus the project strategy and the procurement specification towards the formal consultation to come at a later stage and secure high-quality solutions when the formal tender consultation would begin. ROMATSA will not perform any kind of candidate's pre-selection through this RFI.

Any interested remote tower system provider is invited to react on the present RFI whatever its domain of expertise is and to **present in-depth information** about their systems (e.g. system components' requirements/ specifications will be welcome). Replies can be focused only on some specific aspects of the project, and it is not required to systematically tackle all the requirements presented below.

The following chapters provide more information about the ROMATSA's RTWR Arad project, including questions on issues of specific interest to this project. Opinions and advises are particularly expected on:

- Efficient risk management to make the project implementation and timescale credible;
- Pragmatic technical solutions to meet the key objectives of the project;
- Costs estimation for the implementation of the project;
- Work sharing principles between ROMATSA and the future provider.

4. PROJECT SCOPE

The scope of the project covers all the activities related to the step-by-step definition, development/ customisation, implementing and testing of RTWR Arad system Including system components installation and any associated construction works at Arad airport. The future system provider will be responsible for software development, deployment, customisation and testing of the system and training for all involved parties, including both operational and technical personnel. This provider will also offer assistance in the transition phase related to the putting into service of the RTWR Arad system.

RTWR Arad system will be used in accordance with "**single mode of operation**" and consist of two distinct partitions:

- **Operational Partition (OPS Partition)**
  - this instance will support ATCOs from RTWR Arad to provide ATS Services at Arad Airport and within Arad CTR;
- **Testing and Development Partition (TDS Partition)**
  - this instance will be used for **initial testing** of the system and, after the operational transition, for the **testing of future software versions/ bugs fixing** and for **ATCOs/ ATSEPs training**.

5. Project Roadmap

As a **Step 1** of the project, our intention is to implement the Remote tower system only for Arad Airport.

After the successful implementation of the RTWR Arad system, a possible expansion of the project (other STEPS) could be initiated in order to cover three additional airports. From this perspective, RTWR Arad system is desirable to be scalable.

6. System Requirements

RTWR Arad system has to be compliant with the minimum aviation system performance standard for remote tower optical systems as it is defined in the EUROCAE ED-240B. The key target high level operational requirements to be met by the system are listed below.

6.1 RTWR Arad operating capacity

The RTWR Arad will provide ATS services at Arad Airport and within Arad CTR.

The RTWR Arad system will be dimensioned such as to be operated for Arad Airport and within Arad CTR. Taking into account the type of service provision and needs of visual observations, the operationally relevant AoI for this specific aerodrome has to cover, **at least:**

- aerodrome surface (manoeuvring area, apron/ramp area, runways, holding point, de-icing stand etc.);
- final approach, climbout area, aerodrome traffic circuit, visual reference points etc.

6.2 High-level system functional requirements

6.2.1 The RTWR Arad system has to include the following main components:

- **Optical System** - capture images and output a video stream; here, it is included also the whole "glass-to-glass" chain from the optical sensor(s) to the Optical Sensor Presentation (OSP);
- **Optical Sensor Presentation (OSP)** - displays the video stream to the operator, optionally including augmented presentations;
- **Visual Tracking** - moving objects can optionally be augmented by overlaying information onto the OSP video images (typically a box-shaped symbol) to support operator situational awareness;
- **Pan-Tilt-Zoom (PTZ) Object Following** - an imaging sensor or sensors with a pan/tilt pointing capability and narrow (i.e., magnified) variable field-of-view (emulates binoculars); here, it is included also the whole chain from the optical sensor(s) to the OPS;
- **Control HMI:** interface for remotely operating sensors and other devices at the aerodrome;
- **Time Source**: time reference for synchronisation of components;
- **Light Gun or Signalling Lamp**, remotely controlled allowing the ATCO to communicate via a signalling lamp in the case of radiotelephony failure;
- **Aerodrome ambient airfield/ airside audio** - functionality would be an enabler for increased situational awareness on aircraft and vehicles ground movements.
- **Local and Remote Control/ Monitoring functions –** continuously control/ monitor the technical status of equipment and systems used, generate alarms and warnings when failures have been detected;

6.2.2 The RTWR Arad system will have three operational working positions – 1 CWP-EXE (Executive), 1 CWP-PLN (Coordination) and 1 CWP SPV (Supervisor), and the corresponding human-machine interfaces (HMIs); The CWP-SPV position will be used also as a contingency working position;

6.2.3 The RTWR Arad system should implement fallback and degraded mode facilities. The supplier will indicate how such facilities will be provided.

6.2.4 The system should be equipped with safety nets tools and advanced controller tools. The supplier will indicate how such facilities will be provided.

Note: Navigation services and flight data processing system are excluded from the scope of this project as well as any voice communication systems (VHF, telephone, etc.).

6.3 High-level system non-functional requirements

The RTWR Arad System shall be compliant with the following requirements:

6.3.1 The system shall be based on a modern architecture and technologies in line with SESAR developments and shall implement the best cost-effective technical solutions available. The supplier will indicate how such things will be provided;

6.3.2 The system shall have the maximum level of adaptability and configurability through offline adaptation data (no need to change the software), including but not limited to: changes of AoI configurations, data exchange with external partners, CWP HMIs configuration and access to functions etc.;

6.3.3 The system shall comply with specified performance and response-time requirements included in ED-240B;

6.3.4 The system software development lifecycle shall comply with the applicable safety regulations. The supplier shall provide the required safety evidence/ documentation to support the approval by the NSA of the system safety case at start of operations;

6.3.5 The supplier shall propose a cost-effective maintenance plan to reduce lifecycle costs. The maintenance plan shall cater for software maintenance activities to be performed by ROMATSA staff and by supplier staff both locally at ROMATSA site and at supplier site. There shall be remote technical support available;

6.3.6 The supplier shall provide the required operational and technical training;

6.3.7 The potential suppliers shall demonstrate a proven record of operational implementations of all the functions advertised in a complex operational environment in Europe.

7. Contractual Plan

7.1 Scope and nature of the procurement

In its widest definition, the scope of the procurement procedure will cover the whole project:

- The step-by-step definition/ customisation, development and testing of RTWR Arad system;
- The deployment/ installation and integration of the system's components, both on the Arad Airport and in ROMATSA premises;
- **Civil works** related to the installation of system components at Arad airport;
- The hardware procurement, support to installation and testing;
- Training of the ATCOs and ATSEPs who will use the system;
- The maintenance of RTWR Arad system until the decommissioning of the system;

Based on this RFI's replies and internal analysis, ROMATSA will launch a Call for Tender (CFT) to be concluded with a contract award.

The foreseen timescale to set the contract into place is as follows:

- RFI: March 2025
- CFT: August 2025
- Contract award: end of 2025

Furthermore, ROMATSA is looking to build with the future system provider a real partnership for the commercialization of system output of this project ("shared" IPR property, common involvement in the definition of the roadmap of the remote tower system output of this project, risk sharing etc.).

8. Guidelines for RFI's replies

8.1 ROMATSA commitments

At this stage, neither ROMATSA is committed to launch a call for tender at a later stage for the realisation of the project, nor answers from the ATM system provider which will answer at this RFI are binding.

The technical and scheduling description of RTWR Arad system provided in this document does not constitute a reference specification. ROMATSA reserves the right to modify its requirements, both in terms of technology and implementation timeframe, independently or not of its analysis of the replies to this RFI.

System providers cannot claim for any payment from ROMATSA as a consequence of the work to answer to this RFI.

ROMATSA will analyse the replies with the objective to consolidate the call for tender specification. ROMATSA is committed to guarantee the confidentiality of the information provided by the remote tower system providers through their replies according to the RFI confidentiality policy described in chapter 8.5 below.

8.2 Communication plan:

This RFI is published on ROMATSA website from Tuesday, March 18th, 2025.

8.2.1 Before submission of RFI response

Interested ATM system provider may send written requests for further details or a list of questions regarding the contents of this document to the below mentioned contacts. ROMATSA will seek to provide written answers within two weeks.

8.2.2 RFI response submission

Replies to this RFI must be provided in English and must be received before Friday, April 11th, 2025. They must be sent to the ROMATSA contacts specified in section 8.4 below.

The following must appear on the envelope: **"Reply to RFI Remote Tower at Arad Airport".**

Each remote tower system provider providing a reply is invited to appoint a person who will be its contact point with ROMATSA.

8.2.3 Submission follow-up

Following receipt of the replies, ROMATSA may require other additional information or site visits in order to complete or clarify the replies. Furthermore, ROMATSA could ask for additional demonstration of existing components quoted as potentially reusable in the replies.

ROMATSA cannot commit to provide dedicated feedback on every RFI reply. It will however attempt to do so.

8.3 Layout of reply and content

RFI is an invitation to remote tower system providers to demonstrate their strengths, experience, capabilities and interest in undertaking such an ambitious project.

Beyond the company's presentation, RFI can be structured as shown below:

Cap. I – Executive Summary of the information provided and recommended solution(s) (summary of sections I to VI)

Cap.II - Answers on the operational aspects;

Cap.III - Answers on the technical aspects;

Cap.IV - Answers and advises on the management of the project, focusing mainly on achievement of STEP1 in a short time including:

- Planning;
- Risk analysis;
- Financial aspects;
- Induced role–sharing between the supplier and Customer;

Cap.V - Other information considered relevant by the economic operator;

Cap.VI - Confidential information (see chapter 8.5 below for detailed information).

Financial and scheduling information requested in IV may be detailed as follows:

- Financial references: budgets and brief descriptions of equivalent operations completed by the economic operator;
- Budget assessment: principal elements and items (civil works, development, manufacturing and support), relative or absolute costs, fixed costs, induced costs (licenses, third party equipment...), financial flows throughout the operation and associated assumptions;
- Simplified WBS/ schedule: description of macro tasks and associated time-frame links between macro tasks, related risks analysis.

ROMATSA is aware that some system providers may not be able or willing to address all the issues listed above. However, they are encouraged to provide information on issues for which they have specific expertise to value.

Replies can also be performed by a consortium of several remote system providers.

The remote tower system providers are free to propose any variant on any element of the project. They can also address issues not raised by ROMATSA in the present document.

The reply will be provided on digital support (CD–ROM or DVD), and should not exceed 100 pages for sections I to VI.

8.4 ROMATSA points of contact

Mr. Adrian FLOREA and Mrs. Andreea STRAT are the contact persons for this RFI. Any questions or replies related this RFI have to be sent to both contact persons.

Adrian FLOREA Operational Director phone: +4(0)212.083.115 email: adrian.florea@romatsa.ro Romanian Air Traffic Services Administration 10, Ion Ionescu de la Brad Bld. 013813 Bucharest, ROMANIA	**Andreea STRAT** Head of ATM Systems Unit phone: +4(0)212.083.223 email: andreea.strat@romatsa.ro Romanian Air Traffic Services Administration 10, Ion Ionescu de la Brad Bld. 013813 Bucharest, ROMANIA

8.5 Confidentiality policy

By submitting their contribution in response to the present RFI, contributors expressly accept that ROMATSA reserves the right to use information received to the purpose of:

- defining the strategy and procurement procedure for the completion of the RTWR Arad system;
- defining the potential technical, financial, operational and legal requirement specifications for the procurement of the RTWR Arad system, or component operations;
- and generally defining the follow–up to the project.

Any information of any nature, be it technical, operational, financial or otherwise, submitted in response to the RFI, the contributor wishes to keep confidential, shall be identified as such by means of ad hoc statement. ROMATSA will ensure compliance with and protection of the trade secret of any information quoted as confidential through such a statement.

In lack of such statement, ROMATSA shall assume that information provided by the contributors shall not be subject to any usage and/or release restriction towards any third party.

- END -