

ANNUAL REPORT 2022

ROMATSA LEADERSHIP IN THE YEAR 2022

BOARD OF DIRECTORS

Ardelean Felix Corneliu	chairman (from 24.02.2022)
Aniței Mihai Daniel	chairman (until 24.02.2022)
Nedelcu Corvin	provisional member
Gramă Eduard	provisional member (as of 15.02.2022)
Burghiu David Alexandru	provisional member (as of 15.02.2022)
Olteanu Elena Zînica	provisional member (as of 15.02.2022)
Ciolan Nicolae Sebastian	provisional member (as of 15.02.2022)
Gheorghe Mădălina	provisional member (as of 17.03.2022)
Postolea Iulia Daniela	provisional member (until 03.01.2022)
Nichifor Cătălin Mihai	provisional member (until 03.01.2022)

MANAGEMENT TEAM

Cojoc Marius Adrian	general manager
Florea Valeriu Laurențiu Adrian	director of the operational department
Cimpuiaru Valentin	director of the technical development department
Radu-Cîtu Cristian	p. economic director
Căținean Pavel,	director of safety and quality
Cosmin Dumitrescu,	technical director
Titea Dragoș-Virgil	legal and administrative director

OPERATIONAL, TECHNICAL, SECURITY AND QUALITY OF THE SERVICES PROVIDED

OPERATIONAL ACTIVITY

Route Activity Management

Basic activities

- Activities regarding the optimization of sectorization in FIR/ATC Bucharest. The proposed implementation deadline was the AIRAC-20 April 2023 cycle date.
 - participation in the simulation activities organized at ACC Bucharest – traffic analyses, delivery of traffic samples, design of sectorized scenarios simultaneously with fast-time simulations, etc.
 - elaboration of the documentation regarding the modified sectorization at ACC Bucharest – checklist, safety assessment, update of operational procedures (LoAs between the ATS units of ROMATSA), elaboration of the implementation plan, operational concept (draft);
 - participation in the preparation of training documentation for ATC ACC and CITA ACC staff in order to implement the new sectorization in FIR/ATC Bucharest;
 - SAAM/NEST analysis of capacity, instantaneous load, ATC workload, potential conflicts for the preliminary sectorization options proposed by the working group members;
 - making presentations with the conclusions of the above-mentioned analyses, in order to discuss them in the meetings of the ASD working group;
 - organizing meetings of the Airspace Design working group to discuss the conclusions of the analyses mentioned above, in order to identify the eligible sectorization options for the in-house RTS simulation, in order to establish the optimal sectorization option to be implemented in the Bucharest FIR;
 - creating the analysis materials of the preliminary sectorization solutions, in order to organize the RTS in-house, as well as the configuration of the environmental and traffic data related to the versions qualified for the RTS, in order to introduce them into the DR Bucharest simulator system;
- Optimizing the ATS route structure to comply with the ERNIP structure in force – The plan to improve the route network at European level:
 - Continuation of the activities for the implementation of the projects/activities provided for in ERNIP – European Route Network Improvement Plan – the edition in force;

- modification of ATS route segments in the vicinity of some CTRs so as to ensure the continuous evolution of aircraft in a continuously controlled airspace;
- participation in the implementation and operationalization activities of Braşov Airport. Completion deadline: June 15, 2023. The following activities were carried out in line with the object of activity:
 - participation in the design of CTR Braşov;
 - design of the ATS Z 922 route;
 - obtaining the 5LNC points;
 - the elaboration of the LoA between ACC Bucharest and TWR Braşov;
 - amending the operational procedures issued by the SMR with provisions related to TWR Braşov;
 - elaboration of the AIP amendment basis;
 - elaboration of the safety assessment for the implementation of CTR Brasov, route Z922 and LoA between ACC Bucharest and TWR Brasov;
 - participation, with reference to the lines of the activity object, in the elaboration of the safety assessment for the implementation of the operation at Braşov International Airport - Ghimbav.
- the analysis of the evolution of the flows in the FIR Bucharest in the context of the evolution of international air traffic and the implementation by NM EUROCONTROL of the ATFM measures for the summer season 2023 in order to identify the effects of their application on the flows of air traffic in the FIR Bucharest with the use of applications for airspace design SAAM/ NEST.
- medium-term operational capacity planning:
 - planning, at a strategic level, the capacity of ACC Bucharest in the context of the COVID-19 pandemic by ensuring the procedures necessary for the continuity of air traffic control services at ACC Bucharest and providing, on a regular basis, information on the availability of capacity in the context of the continuous seasonal plan of the NOP implemented by the network manager at the level of the European ATM network. The expected performance on the route was and is regularly evaluated by NM for each ACC, including Bucharest ACC, in terms of planned/maximum openings of the routing sectors, in relation to the estimated traffic demand;
 - participation and traffic analysis for the preparation of meetings with NM on the topic of strategic planning of ACC Bucharest capacity for 2022-2024: development of the medium and long-

term capacity model, considering the scenario with/without ATC recruitment according to the proposals in the PP RP3 Performance Plan.

- Participation in the activities coordinated by ATM Systems experts in order to implement the SEE FRA project, namely the expansion of the SEE FRA operation in the South-East European airspace between the control regions (ATC) Bratislava-Budapest-Bucharest-Sofia by including the Chisinau ATC, with an implementation deadline February 24, 2022. The LoAs between the ATS units affected by the implementation of the FRA H24 were updated by including the Chisinau ATC and the AIP amendment base.
- Regular weekly analysis of the estimated evolution of the traffic in the Bucharest FIR, in the short term, by using the traffic data at the European level received from the Network Manager.
- Analyzing the proposals for instrument flight procedures related to some CTRs and TMAs from the Bucharest FIR sent by the terminal management specialists and formulating observations and proposals along the lines of the activity object.
- Participating, in line with the object of activity, in the analysis of draft normative acts and regulations sent for consultation by AACR, MTI (RACR-ATS Regulation, amendment proposals for PIAC-ATS, RACMR-MSA-UFSA Regulation, etc.), respectively providing on the line of responsibility of the opinion regarding new legislative proposals. Participation in the analysis of draft documents developed by international organizations which Romania is a party to - EASA, EUROCONTROL, ICAO.
- Coordination, elaboration or updating, as the case may be, of the operational procedures applicable mainly in the field of route air traffic services and in class G airspace, as well as of the coordination procedures between the ATS units of ROMATSA and ACC Bucharest and the adjacent ACC units (LoAs). Five procedures (PIN) were created, two amendments to a PIN and 37 amendments to LoAs were made.
- Coordinating the development of risk assessments for changes to the ATM system related to the activity of providing en route air traffic services and monitoring the application of risk reduction measures. Four safety assessments and three checklists were developed.
- KPIs. In this context, the participation of route management specialists in the development of the Performance Plan for the third reference period - RP3 is included:

- analyzing traffic evolution and revising the medium and long-term capacity plan, contributing to the PP monitoring report on capacity and environment issues.
- Participation in the development of the ACE Benchmarking Report 2021 documentation from the perspective of the field of competence.
- Development of the Danube FAB from an operational perspective. The cooperation with the Bulgarian partners continued for the operational analysis to identify the optimal methods of collaboration, from the perspective of air traffic safety and streamlining of traffic flows.
- Civil-military collaboration for the purpose of applying the concept of flexible use of the airspace - permanent activity. In this context, the development or updating, as the case may be, of civil-military collaboration protocols and/or procedures, pre-tactical and tactical airspace management procedures, respectively participation in military activities with an impact on route activity are mentioned.
- Elaboration of proposals for corrective measures related to the object of activity following inspections and audits carried out internally and externally and following up their implementation.
- Analyzing reported safety events (REAC) and tracking the implementation of corrective measures, if applicable. The participation of experts in the subsequent research commissions of some ATM events.
- Coordinating the establishment of new restricted areas for specific activities to combat hail and the appropriate elaboration and/or completion/update of specific procedures. Given the increasingly important impact of the airspace restriction for the launch of anti-hail missiles on civil air traffic, ROMATSA specialists will continue to request/recommend the development of the National Anti-Hail System through the use by the operators of the respective systems and other methods of dissipating the anti-hail agent (generators of ground or specialized aircraft).
- Preparation of AIP Romania penalty bases in accordance with airspace changes related to the competence of route management specialists. Five AIP amendment bases, on the line of the activity object, and one NOTAM base were issued.
- Participation in the conclusion of protocols, procedures, regulations in collaboration with internal institutions - MTI, AACR, SMFA and airspace users - TAROM, AOPA, ARCA, etc.

- Participation in the teams of specialists in the development and implementation of the ATM 2015+ System. Participation in the testing teams of specialists for the development and implementation of the ATM 2015+ System.
- Coordination of the implementation of the objective FCM06 – Traffic Complexity Assessment, defined in the European ATM Master Plan – Implementation Plan 2016 (ESSIP 2016), applicable to Romania:
 - finalizing the specifications for the ROMATSA automated system for air traffic complexity management – ROMAirTCM. Also, the Activity Report on the creation of the specifications for the ROMATSA automated system for managing the complexity of ROM AirTCM air traffic was completed.
- Activities related to the object of activity regarding the implementation of Regulation (EU) no. 373/2017 with subsequent amendments and additions establishing common requirements for providers of air traffic management/air navigation services and other functions of the air traffic management network and for their supervision: update and development of PIN procedures, as appropriate, for compliance with the requirements of the regulation, applicable for the ATS field.
- Carrying out planned operational inspections at ACC Bucharest, according to the approved annual planning.
- Participation in EUROCONTROL/ICAO RNDSG (Route Network Development Sub Group – ICAO EUR Region), RDGE/ICAO (Route Development Group – Eastern Part of the ICAO EUR Region), APDSG (ATM Procedures Development Sub-Group), subordinate NETOPS, CPSG meetings (Capacity Planning Group), subordinate to NETOPS, CECM/CANSO.
- The participation of specialists in the training activities of ATC Ab-Initio personnel, in the field of competence.
- Participation in the examination of the ATC staff within ACC Bucharest in order to advance/promote.
- Guidance activities for students of the Faculty of Aeronautics for the mandatory internship (10 students).
- Participating, related to the activity, in the amendment activities of the accounting cost allocation methodology: analysis of traffic and airspace data, according to the request of the consulting firm Helios.
- Other permanent activities:

- participation in the continuous optimization process of SAAM/NEST applications developed by EUROCONTROL/NM;
- the use of the NEST application – developed by EUROCONTROL – for the analysis of sector closure/opening schemes and in the context of updating capacity plans for LSSIP (material prepared for the works of the CAPLAN group);
- optimization of the airspace structure through the use of dedicated applications, as follows:
 - NEST (Network Strategic Tool) – preliminary analysis
 - RAMS (ISA Software) – Fast Time simulation
- drafting /updating protocols, procedures, regulations in collaboration with internal institutions and airspace users;
- carrying out activities specific to civil-military collaboration and programs for executing flights without crew on board (RPA).

Terminal Activity Management

The main activities carried out in 2022, in the field of terminal activity management, were the following:

- Airport modernization projects:
 - coordination/elaboration of specific documents for the modernization projects of some airports (implementation plans, updating ROMATSA internal procedures, instrument approach procedures, safety assessments);
- Airport coordination – application of Regulation 139/2014:
 - coordinating and finalizing/updating Air Navigation Services agreements and common local procedures with most airport operators;
- ATM 2015+ project
 - Participation in the ATM 2015+ working group;
- Centralization of the movement situation in Bucharest FIR and in the terminal area:
 - the monthly centralization of the situation of the movements of all airports in Romania;
 - the monthly centralization of the movement situation in Bucharest FIR;
 - quarterly/annual transmission of data to RCAA;
 - daily centralization of commercial movements at all airports in Romania.
- Operational inspections

- monitoring the application of the plans of measures established following audits or operational inspections carried out by RCAA, DSC - ROMATSA and the Terminal Activity Management Service/ROMATSA;
 - carrying out operational inspections and drawing up inspection reports (due to the large volume of work generated by the implementation of air traffic services for Braşov airport and due to the lack of personnel, most operational inspections have been postponed to 2023).

- Elaboration of documentation specific to the field of activity
 - update TWR Operational Manuals, APP;
 - participation in consultations regarding legislative changes and proposed amendments (air code, RACMR MSA UFSA, etc.);
 - coordinating the drawing up of collaboration procedures between DSN subunits and airports and obtaining RCAA's acceptance for commissioning;
 - coordinating the development of procedures, collaborating aerial shows/contests, balloon launches;
 - participation in the development of collaboration procedures for military exercises that take place in the terminal airspace;
 - coordination, elaboration of collaboration procedures between TWR units and VFR operators;
 - coordination/analysis/proposals for updating documentation (operational procedures, operational manuals, ROF, etc.) for compliance with Regulations 373/469/1177/665 and ASM/ATFM certification;
 - coordinating LoA update between subunits;
 - collaboration in the preparation of the ROMATSA exhibition and certification request;
 - collaboration to demonstrate ROMATSA's compliance with Regulation 373/469/208;
 - elaboration of AIP amendment bases;
 - elaboration of NOTAM bases.

- Optimization of instrument flight procedures
 - coordination design/optimization/implementation of instrument flight procedures (including PBN procedures) for all 16 airports for which ROMATSA provides air traffic services:
 - coordination of operational requirements of ATC/air operators/SMFA/airfield operator
 - coordination with the design organization
 - coordinating geodetic agents, airport operators for terrain/obstacles database clarifications
 - coordinating agreements between interested parties, approving concepts, approving final documentation

- development of safety assessments
- coordinates for in-flight validation
- RCAA approval process coordination
- publication process coordination
- elaboration of AIP amendment bases
- ATC training coordination

There are two contracts that include:

- revision/optimization of all existing instrument flight procedures in AIP for the 16 airports
- design and implementation of RNP APCH procedures for both directions of runways (15 airports)
- design and implementation of conventional SID routes for airports where they were not previously published (7 airports)
- revision of SID/STAR RNAV1 routes for DME/DME sensor and their additional design for GNSS sensor (8 airports)
- redesign of all SMA ATC maps (8 airports).

- Optimization of airspace structures

- extension project of CTR Iasi and CTR Bacău;
 - CTR Baia Mare extension project and modification of LRTRA70.

- Other operational activities

- monitoring risks related to the specific activity of airfield control towers (TWR) and approach control units (APP), analysis of Civil Aviation Event Reporting (REAC), formulation of requirements or recommendations for risk reduction;
 - consultations with air operators;
 - participation in the Braşov Airport working group;
 - working group participation Regulation 373;
 - participation in the working group for the identification of project proposals eligible for financing from European funds;
 - AMAN working group participation;
 - participation working group Optimizing the airspace;
 - participation in the working group amending GD no. 74/1991;
 - participation in the working group ROMATSA Strategy regarding the provision of air navigation services at airports in Romania;
 - participation in RP3 meetings and providing support for the preparation of documentation;
 - elaboration/verification of documentation to RCAA for the acceptance of changes to the ATM system (checklists, requests for acceptance of changes to the ATM system, safety assessments, operational concepts, etc.);
 - coordination of student activities in practice;
 - collaboration implementation of Clearance Delivery Otopeni;

- collaboration activity design and implementation of PBN instrument flight procedures in Romania, included in the program with European funding SPICE. Participation in the SPICE working group, completion of progress reporting documentation, payment justification documentation, etc.;
 - response forms to judges' requests = flights delays/cancellations;
 - response forms/notice requests regarding the launch of fireworks/drone flight activities (Mogoșoaia, Romexpo, Otopeni, Bacău, etc.);
 - coordination with TWR units regarding noise reports in the airport area - petitioner response forms;
 - GL participation – Harmonization of GRF implementation (analysis of documents related to GRF, creation of a CO, implementation plan, safety analysis, RCAA correspondence, etc.).
- Operations and infrastructure news
 - Performance Based Navigation concept implementation:
 - collaboration on ATM/ANS Plan implementation and PBN transition in Romania;
 - elaboration of PBN instrument flight procedures safety assessment implementation.
 - County Council of Brașov/AIBG collaboration - ensuring support for the establishment of Brașov Airport and the operationalization of the TWR Brașov unit (elaboration of points of view, requirements, participation in GL meetings, analysis of the operational concept/specifications/technical concept, coordination of the development of operational procedures for collaboration, analysis and later transmitted to RCAA of instrument flight procedures, collaboration for the approval within CMSA of the airspace structure related to Brașov Airport, collaboration procedures with air operators in the Brașov area, etc.).

Aeronautical Information Management

The main activities carried out in 2022, in the field of Aeronautical Information Management (AIM), were the following:

1. AIS management:

- Carrying out operational internal inspections at the units that provide aeronautical information services.
- Training of aeronautical information personnel:
 - organization and coordination of recurrent training courses for CITA Instructor;

- organization and coordination of the CITA Instructor training course;
 - supporting specialized subjects (corresponding to the field of aeronautical information) at courses for CITA and MET personnel.
- Ensuring the position of Client Security Officer (CSO) for ROMATSA in relation to the European AIS - EAD Database, managing users and their rights in working with EAD, SDO, PAMS, INO modules.
- Direct purchase of digital printing services for the printing of aeronautical maps that are developed within the service.
- Modernizing the systems for aeronautical information services in order to achieve the OB 9-AIM objective, the following activities were carried out:
 - acceptance of the Test Plan for FAT;
 - carrying out the training of the test team in order to participate in the Factory Acceptance Testing (FAT);
 - carrying out the Factory Acceptance Testing (FAT): the tests were successfully completed and the factory acceptance report (FAT) was signed;
 - the participation of experts with attributions related to drawing up maps in periodic (on-line) meetings with IDS specialists for the development of aeronautical map templates;
 - completion of the following documents:
 - System Design Document;
 - Document Control Interface;
 - Threat Modeling ROMATSA AIM;
 - Security Risk Assessment & Risk Mitigation ROMATSA;
 - Site Implementation and Installation Plan.
 - delivery of equipment and their installation;
 - conducting training courses for technical operational personnel with the completion of the following documents:
 - Log Management Plan;
 - Access Management Plan;
 - Backup Management Plan.
 - acceptance of the site acceptance testing (SAT) plan;
 - performing the Site Acceptance Testing (SAT). Testing period: 16.05 – 05.07.2022. The tests were successfully completed and the Site Acceptance Certificate (SAT) was signed on 07/05/2022;
 - in the period 07.07.2022 – 05.08.2022 the first monitoring session of the System took place. Since during this period, at the request of ROMATSA, the Supplier intervened to optimize the operational work configurations, on 08.08.2022, during the meeting between the representatives of ROMATSA and IDS AirNav, it was proposed to resume the monitoring period;
 - in August 2022, the Additional Act/Addendum no. 4, by which the deadline for completing the system monitoring activity was extended by 30 days. The new deadline for completing the contract is 07.10.2022;

- between 05.09.2022 – 04.10.2022 system monitoring tests were carried out, it being exploited by users 24 hours a day, for a period of 30 consecutive days. After the successful completion of the monitoring tests, the Final Acceptance Certificate was signed.
 - Operationalization of Braşov-Ghimbav Airport
 - coordination of the activity in the field of AIS/AIM;
 - the active participation of AIM (aeronautical cartography) experts in the process of checking and validating instrument flight procedures, designed by RAS based on the contract with AIBG;
 - the elaboration of the document "Collaboration procedure between the Romanian Air Traffic Services Administration - ROMATSA and the Braşov International Airport regarding the provision of aeronautical data and aeronautical information";
 - updating the following documents:
 - ARO procedure/Briefing assisted from a distance;
 - the procedure regarding the operation and storage of aeronautical information products;
 - the collaboration procedure between the International NOTAM Office and the Originators of NOTAM bases in ROMATSA regarding the provision of aeronautical data and aeronautical information.
 - verification of proposals for approval in principle RCAA of the following documents:
 - the collaboration procedure between ARO/Briefing Timişoara and TWR Braşov;
 - ARO Operational manual/Briefing Timisoara;
 - the collaboration procedure between ARO/Briefing Timisoara and Kronaero Ground Services SRL Braşov-Ghimbav Airport;
 - analysis and submission of comments to the draft amendment bases received from AIBG (for airport infrastructure) and originators from ROMATSA (for the provision of air navigation services);
 - completing the data related to the provision of AIS in the field "Safety assessment for the provision of ATM/ANS services in CTR Braşov".

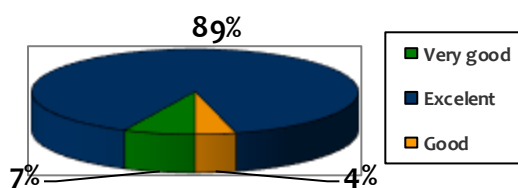
2. AIS provision

- Receiving and analyzing the AIS databases from the originators, submitting comments for correction and submitting them for RCAA approval, with a view to publication;
- Publication of aeronautical information documents containing, in short, the following changes to AIP Romania:

- publication of information related to the extension of the EEA FRA;
 - publication of changes to the lateral boundary of TMA Arad 2;
 - updating LVP information at the LRTM airport;
 - updating information regarding the entry, transit and departure of aircraft;
 - updating information on the infrastructure of LROP, LRBS, LRBC, LRSB, LRCL, LRTR, LRSV, LPMC, LRCK, LROD, LRAR, LRTZ, LRHO, LRBM, LRPW airfields;
 - updating the AMA and MSA LRCL;
 - updating the information regarding the time of sunrise and sunset for all airfields/heliports published in AIP Romania ;
 - updating the tariff for en route air navigation services and the tariff for terminal air navigation services (regulated TANC).
- FRA map update.
 - ENR map update 6.2.
 - Publication of eight aeronautical information circulars and three Supplements to AIP Romania.
 - Maintenance of aeronautical data in the European AIS Database – EAD, SDO (Static Data Operations) and PAMS (Published AIP management System) modules.
 - Posting on its own website, www.aisro.ro, the elements of the published Integrated Aeronautical Information Package.
 - As a result of the analysis of the answers to the Questionnaires regarding the provision of AIS by ROMATSA, completed by the

subscribers to the AIS documents for the AIS service, the result published in the following diagram was obtained:

STATISTICS OF RESPONSES TO THE QUESTIONNAIRE REGARDING THE SUPPLY OF AIS BY ROMATSA IN 2020



Meteorological Information Management

In 2022, the following categories of activities were carried out within the MIM Service:

Weather assistance :

- participation in the European Cross Border Convection Forecast project, in the period May - September 2022, in operational mode. This project ensures the collaborative and unitary development of a forecasting product intended for Network Manager (Eurocontrol) for planning operational activities. In order to streamline the activities related to the editing and transmission of forecasts by CNPMNA, the necessary configurations of the editing application were made and the transmission / reception flows of the forecasts were established.
- based on the CBCF forecast, a specific product was created for the forecast of atmospheric convection , intended for ACC Bucharest. The necessary configurations for the regular distribution of this product have been made.
- participation in the eGAFOR regional project for the collaborative and unified issuance of a graphic forecast, intended for general aviation. On the occasion of BIAS 2022, the product was popularized among air operators, including presentation and promotion materials.
- in order to ensure compliance with the regulatory framework, the framework procedures regarding:
 - developing and updating operational manuals,
 - coordination with TWR traffic units,
 - collaboration with airport operators.

Based on these framework procedures, the amended local work procedures were verified.

- the regulatory basis, operational inspections were carried out at:
 - BMA Satu Mare
 - BMA Sibiu
 - BMA Iasi
 - BMA Bucharest
 - BMA Arad

Implementation of the ROMATSA Annual Procurement Plan

- for the investment objective "AWOS system in 16 airports", which aims to replace the computer systems and the software application for all semi-automatic observation systems (AWOS) at the airports: between February and November In 2022, the activities corresponding to the procurement procedure were carried out, namely publication of documentation, response to requests for clarification, evaluation of offers, adjudication. On 28.11.2022 the AC/E/B/AP - 343 contract was signed with the DTN company.
- the preparation, follow-up of the signing of the new ANM-ROMATSA services contract and the monitoring of the termination of the contract (invoice payment notice and introduction to e -management)
- preparation, follow-up of the signing of a new contract, IBL - ROMATSA software corrective assistance services and monitoring of the execution of the contract (invoice payment notice and introduction to e-management)

- new contract for NOWCAST-ROMATSA electrical discharge detection services and monitoring of contract performance (drafting/revision of service specifications, invoice payment notice and introduction to e - management)
- For the investment objective Low - level wind shear detection system based on LIDAR at AIHCB, the system was installed in the first half of 2022 and following the completion of the pre - operational evaluation stage in the period July - August 2022, on 31.08.2022 the final reception of the system was completed, it entering operational exploitation starting with December 2022.
- elaboration of the design theme and approval of the feasibility study for the investment objective of installing the wind sensor ROMAWOS RWY 09 Sibiu (together with Serv. CNS and DSN A Sibiu)

Selection and professional training

- updating with the provisions of the new AACR RAC-LMET documents, ed. 2022 and PAC-LMET, ed. 2022 of the Aeronautical Meteorology Training Center (CPMA) Manuals respectively :
 - The CPMA Organization Manual
 - CPMA Training Manual
- appointment of RIG at the Training Center in Aeronautical Meteorology (CPMA)
- taking steps to AACR to obtain a new Operating Certificate for the Training Center in Aeronautical Meteorology (CPMA)
- coordination of activities and participation in commissions for employment of MET staff at:
 - Sibiu Airfield Meteorological Office
 - Iași Airfield Meteorological Office
 - Bacău Airfield Meteorological Office
 - Satu Mare Airfield Meteorological Office
 - Bucharest Airfield Meteorological Office
 - Brașov airfield Meteorological office
 - Constanța /M. Kogălniceanu airfield meteorological office.
 - CNPMNA.
- coordination of activities and participation in commissions for promotion to the position of head of the MET department at: BMA Tg. Mures and BMA Bucuresti
- supporting a number of 14 courses within the Aeronautical Meteorology Training Center (CPMA) within the MIM Service for the training of trainee staff (newly hired staff), for maintaining competence / staff promotion operational meteorology, respectively MET AERO TEHN and MET AERO PROG and for obtaining /maintaining OJTI authorizations. On the occasion of these courses, the remote training platform of the meteorological staff was also used, under the conditions of pandemic restrictions.

- supporting aeronautical meteorology courses for other categories of ROMATSA personnel: Basic and ADV Rating courses for ATS-ACC personnel.
- checking the amendments to the local training plans sent by the MET subunits.
- drawing up the PfP proposal for the MET AERO staff for the year 2023.
- planning courses for MET AERO personnel in 2023 and discussing with MET subunits.

Specialized expertise:

- participation in the activities associated with the implementation of the ROMAWOS 4.0 version: system testing, verification from the point of view of interoperability and issuance of the verification statement, elaboration and submission of the authorization documentation. In December 2022, Authorizations were issued for the systems at all 16 airfields and the activities related to the approval of the change of the functional system, prior to the transfer into operation, continue. In July, information was sent to the RCAA, in accordance with the provisions of PIN1220, regarding the transfer to emergency operation of the ROMAWOS 4.0 system at DSN Baia Mare, the transfer was successfully carried out on 25.07.2022, following to which SMIM and BMA Baia Mare ensure the follow - up of the criteria to be monitored established by the evaluation in support of safety.
- participation in the activities of the working group regarding the provision of air navigation services at Braşov/Ghimbav airport, respectively:
 - development of the BMA implementation plan Brasov
 - amendment of work procedures at central level/ development of consolidated draft versions of the amendments to the MET operational procedures and norms developed by SMIM requiring revision in order to implement BMA Brasov: PIN2807, PIN2808
 - drafting of consolidated draft versions of the local coordination/collaboration procedures and the QNH and QFE determination procedure for BMA Braşov
 - development of the consolidated draft version of the Operations Manual for BMA Braşov
 - visiting the future location of BMA Brasov
 - acquisition of topometric services for BMA Brasov
 - participation in the implementation of the AWOS7 system SAAB - Combitech at Brasov airport: analysis of documentation, drafting of ICD, participation in FAT
- participation in the Weather Radar Data Processing System project, developed by the Systems Development Service, for displaying weather radar information in Asterix CAT 9 format on the CWP screen. The system was authorized by the RCAA and entered into operational use starting with 15.06.2022

- analyzing reported safety events (REAC) and tracking the implementation of corrective measures, if applicable.
- the ROMATSA exposition (MET section) in order to amend the Air Navigation Service Provider Certificate .
- the consultation process initiated by the RCAA for the amendment of the national legislation in the field (RACR-LMET, PAC-LMET).
- participation in activities related to the distribution of meteorological messages, within the ICAO Data Management Group.
- Correction plans and corrective actions following the RCAA audits at BMA Bucharest, Timisoara, Oradea, CNPMNA.
- verification of amendments to local LVP operating procedures

Civil-military collaboration

In 2022, the current activities of civil-military collaboration in the field of air traffic management continued, in order to constantly apply the SES regulations in the planning and carrying out of complex activities, in order to fulfill the general and specific duties established, in accordance with the aeronautical legislation and the national and international regulations. In addition to current activities, civil-military collaboration and coordination were marked by the emergence and evolution of the conflict in Ukraine.

In the context of the evolution of the political-military situation in Ukraine, the NATO activated the specific crisis response mechanism, which led to the intensification of operational flights and the diversification of the types of missions performed by military aircraft.

After the launch of military operations on the territory of Ukraine by the Russian Federation, the operational missions of the NATO aircraft tripled in volume and became permanent. At the same time, at the start of military operations, Ukraine and Moldova closed their airspaces for civil air traffic and, as a result of the sanctions adopted by the international community, the airspaces of the Russian Federation and Belarusian islands cannot be flown over by foreign aircraft. As a result, a large part of civil air traffic was diverted through the Romanian airspace, which led to an increase in the volume and complexity of the air traffic in the Bucharest FIR .

To accommodate current operational missions, the structure of the airspace has been adjusted so as to allow the use of both temporarily reserved areas for military activities published in the AIP and ad hoc military areas. All these areas were declared as plannable for civilian traffic, and their crossing was allowed through coordination with military traffic units.

In this context, ROMATSA ensured the provision of traffic services for combat aircraft in transit to work areas and permanent control for military reconnaissance, aerial surveillance (AWACS), in-flight refueling and transport aircraft. Also, ROMATSA provided air traffic services at Otopeni, Mihail Kogălniceanu and Bacău airports, jointly used with military aviation structures.

Simultaneously with the specific measures to ensure military operational missions, in 2022 the exercises, trainings, demonstration flights or those carried out on the occasion of the national day or other holidays continued. In this sense, in 2022 civil-military coordination was ensured for 42 complex activities, which required the elaboration of dedicated protocols, through which the concrete elements of reservation and flexible use of airspace and tactical coordination of general and operational air traffic were agreed.

In order to ensure the conditions for carrying out some sports flight activities without affecting the civil and military operational requirements, during 2022 three protocols were concluded between ROMATSA, the Aeroclub of Romania and the Air Force Staff dedicated to glider flights in undulating (rip) currents, flights with the hot air balloon for setting height records and the National Gliding Championship.

In order to fulfill the requirements regarding the civil-military coordination of flights of a special nature, nine protocols were concluded between ROMATSA, the General Staff of the Air Force and private air operators regarding the conduct of aerial photogrammetric flights and measurement of atmospheric parameters.

Also, during 2022, the expert for civil-military collaboration carried out the following activities:

- coordination with the representatives of the Ministry of Agriculture for the preparation of the approval of new launch points of anti-hail missiles and related restricted areas;
- the continuation of the support given in the implementation of the Local and sub-Regional Airspace management system-LARA, by installing the new software version and implementing the joint ROMATSA-SMFA Procedures regarding the use of LARA;
- preparation of ROMATSA's proposals and positions for Airspace Management Council decisions;
 - the organization of four meetings of the ROMATSA-SMFA working group for the redefinition of military zones, in the context of the implementation of the FRA and the entry into operation of the new type of fighter plane;
- the organization of a ROMATSA-SMFA meeting at the level of specialists in the technical field, for the development of joint programs regarding radar data, radio communications and technical systems used in common;
- the relationship with the operators of aircraft without a pilot on board in order to ensure the activities with these types of aircraft without impact on the safety of flights under the responsibility of ROMATSA;
- participation in the Working Group for the definition of restricted areas for the operation of aircraft without a pilot on board;
- representation of ROMATSA within the relevant committees for civil-military collaboration organized at EUROCONTROL and the NATO level.

ATM systems

The activities carried out in 2022 were:

- The extension of the SEE FRA project (South East Europe Free Route Airspace, successfully implemented on November 7, 2019) by including the airspace of the Republic of Moldova, starting on February 24, 2022. Thus, air operators can freely plan their flights 24/7 in the airspace from Bulgaria, Hungary, Romania, Slovakia and the Republic of Moldova without the limitations of geographical borders. The inclusion of the airspace of the Republic of Moldova represents the second expansion of the EEA FRA project, thus making possible operations on free cross-border routes - free route cross border H24/7, in the airspace of the 5 states. Thus, SEE FRA becomes one of the largest blocks of airspace in Europe in which operations are implemented on free cross-border routes. In addition to the expansion of the EEA FRA, cross-border operations between the EEA FRA and the BALTIC FRAA are being implemented, which makes the airspace stretching from the Black Sea to the Baltic Sea open for operations on free routes. During 2022, the activities related to the extension of the SEE FRA with the CZECH FRA took place (coordination with the SEE FRA partners, updating the operational concept, safety argumentation, elaboration of the implementation plan).
- The Program for the Development and Implementation of the New ROMATSA 2015+ ATM System - the specialists further ensured the management of the ATM 2015+ project, the project configuration, the technical and operational configuration data (Adaptation Data) and its documentation. Also participated in system testing, preparation, input, update, system verification of configuration data. The ROMATSA – Indra the minutes of full reception (Phase 1 and Phase 2 – Step 1) ATM 2015+ Indra were signed. The final reception was signed upon completion of the works and commissioning of the ATM 2015+ System (SW and HW) Phase 2 by the ROMATSA Reception Commission. Given the transfer in operation for both Phase 1 as well as for phase 2 and the signing by the representatives of RA> ROMATSA and Indra Sistemas SA of the Minutes of total reception (phase 1 + Phase 2), all activities related to the ATM System 2015+ STEP 1 project were completed. In this sense, a the report on the completion of the implementation activities of the ATM System 2015+ STEP 1 project (Phase 1 and Phase 2) was developed.

In 2022, test sessions were held following the commissioning of Phase 2 of the Indra ATM 2015+ System from 15.11.2021, as follows:

- in September 2022, took place within the CDZ Bucharest – Cota Hall), the Patch 2 Post ODATE Phase 2 Indra ATM System 2015+ testing session which resolves a series of technical observations

recorded in the OBS DB observation database of the ATM System 2015+;

- on 20.04.2022 the High Level Meeting ROMATSA – Indra took place. Considering the period between the transfer into operation of Phase 2 and the start of STEP 2 related activities, it was considered necessary to evaluate the possibility of concluding an evolutionary maintenance contract that would ensure the implementation of new functionalities according to the identified technical-operational needs;
- During the year 2022, the observations included in the OBS DB observation database of the ATM 2015+ system were analyzed within ROMATSA, in order to update their recovery status. Two ROMATSA – Indra expert level workshop sessions were organized which took place in May 2022, to discuss and clarify the status of the observations contained in the OBS DB observation database, for which the views of the parties regarding the stage of resolution they were different.

The stage of the evolutionary maintenance contract

Taking into account the requests for changes from the users of the system following its operation, as well as to ensure the needs of adapting the system to possible airspace changes and to comply with regulatory requirements (EUROCONTROL, ICAO, EASA), the procedure of public procurement for the contracting of evolutionary maintenance services. The evolutionary maintenance services will ensure the analysis of the necessary changes, their prioritization and their implementation, maintaining the quality and safety assurance procedures.

Contract status as of 31.12.2023: Indra submitted the technical and financial offer in November and negotiations between the two parties on the contract were started.

Adaptation of the ATM 2015+ Indra system by configuring the TRW Braşov integrated tower

The specifications and technical specifications were developed for the adaptation of the Indra ATM 2015+ System by configuring the TRW Braşov integrated tower. The contract was negotiated with Indra and accepted by both parties, reflecting the accelerated schedule necessary for implementation.

Status of the contract on 31.12.2022: the contract was signed in ROMATSA and forwarded to Indra for signature.

- The implementation of DataLink – in ATM systems is one of the key improvements that decongests voice communication channels. This service is provided by the air traffic controllers within ACC Bucharest, to all CPDLC-equipped aircraft that evolve above FL285. Following the implementation of the provision of DataLink services starting on July 17,

2020, the monitoring of the specific functionalities of the ATM system, the use and performance of DataLink services in Bucharest FIR is taking place. By participating in the DataLink Support Group, organized by EUROCONTROL and the SESAR Deployment Manager, solutions are reported, analyzed and identified to the malfunctions observed in the operation of DataLink services in order to improve performance and increase the degree of use. In this sense, ROMATSA ensured the leadership of the task force established at the DSG level for the harmonization of FANS-ATN transfers. At DSG#8 (March 9-10, 2022) ROMATSA presented the situation of the use of DataLink services in Bucharest FIR and assumed the leadership of the working group that will analyze ways to harmonize transfers between ATN and FANS. Participation in the working groups of the common DLS governance at the European level is also ensured through the CoDE (Common DLS Governance for Europe) initiative.

DLSTAT

In the course of 2022, the operational specifications for the development of the DLStat application for monitoring the performance of DataLink Services in Bucharest FIR (DataLink statistics and performance monitoring) were developed.

- Implementing Advanced T Messaging

The implementation of the "Advanced Tower Messaging DPI" system at TWR Otopeni will allow the direct information of NMOC and its partners (other ATC units, destination airports, etc.) about the phase preceding the performance of a given flight, especially regarding the take-off time (TOT) through messages that can be processed automatically in order to ensure timely updating of flight data, calculation and improvement of slots. DPI messages automatically transmitted from the A-SMGCS system will provide the NMOC with more recent and accurate flight data than the data currently available at the IFPS, facilitating the integration of the Otopeni TWR into the network management system in order to improve subsequent decision-making.

In 2022, the following actions were carried out:

- the development of the technical and functional specifications (FTS) for the "Advanced Tower Messaging DPI" system TWR Otopeni (in progress) and the specifications for the acquisition of the system;
- the "DPI Interface Control Document LROP", the document describing the interface between the A-SMGCS system and ETFMS for the transmission of DPI messages, was completed, together with EUROCONTROL;
- the awarding procedure for the purchase of "Modernization of the A-SMGCS system - Implementation of the Advanced Tower

Messaging system" was launched and, in August 2022, the ROMATSA - ADB Safegate GmbH Contract was signed for the modernization of the ASMGCS system by implementing the Advanced Tower Messaging system, the activities having been started within the contract

By the end of 2022, the System Subsystem Specification and respective System/Subsystem Design Description documents have been agreed with the supplier. The activities within the project are ongoing, in accordance with the agreed work schedule.

- Coordination of activities to ensure support services for the development and operation of the Braşov-Ghimbav International Airport, respectively the implementation of the REMOTE TWR Braşov solution at CDZ Arad.

According to the integrated schedule of the project, which details the essential intermediate terms in the preparation of the operationalization of the airport, as well as the conditions arising from the application of the action plan, the completion of the project is estimated in the first semester of 2023 (operational Braşov-Ghimbav International Airport).

The main activities carried out within the project were:

- elaboration of the integrated schedule of activities within the project (AIBG, UTI, ROMATSA and the RCAA); the action was finalized and the schedule forwarded to the RCAA and the other partners in the project;
- approval of conventional flight procedures; compared to the initially assumed deadlines, the approval of the flight procedures was delayed by the transmission of the first version three weeks late. Several changes were requested, several meetings took place between ROMATSA, RAS and ACR. The validation flights were scheduled for January 2023. Activities carried out: design, approval by interested parties, internal analysis, formulation of observations and coordination with RAS and the RCAA in order to implement corrections by RAS, transmission of ROMATSA agreement to the RCAA;
- airspace design and approval;
- discussing the agreement with the Braşov County Council and AIBG

An updated version of the document was submitted to the County Council Braşov and AIBG in October, taking into account the comments received from them on the first version. In December, ROMATSA's cost estimates were finalized and sent to the County Council Braşov and AIBG to be included as an appendix to the agreement. The agreement provides for a mechanism in which these cost estimates are included in the annual County Council Braşov/AIBG budget, aiming to reduce the revenues that ROMATSA obtains from air navigation services

- so that the financial result of ROMATSA for the provision of air navigation services to AIBG be neutral;
- elaboration of operational procedures (action in progress starting from September 2022). This concerns all the operational procedures applicable to the Braşov airport, under the responsibility of the operational experts;
 - coordination with the RCAA – review of operational procedures (iterative process, ongoing);
 - coordination with the RCAA in order to start the preparation of the CTA for Braşov (in progress);
 - the development of documentation for the training of Air Traffic Controllers (in progress);
 - submission of files to the RCAA in order to authorize the systems (action in progress starting from 05.12.2022);
 - the preparation of the Adaptation Data System Indra, adapted for Braşov airport (in progress);
 - FAT testing of systems and equipment. ROMATSA specialists from the operational, ethnic fields participated in this action, as an observatory;
 - SAT testing of VCSS, VHF and e-VHF systems – completed in December 2022 and ILS/DME, DVOR/DME – not completed as planned due to delays generated by the supplier;
 - training on equipment at the manufacturer (ongoing);
 - revision of the safety argumentation (ongoing);
 - amending the ROMATSA supplier certificate (in progress);
 - publication of information in AIP Romania (ongoing).
- NIDS improvement - implemented the graphic SIGMET to be operationally implemented after obtaining the acceptance of the change by the RCAA. Following the requests made by ACC Bucharest, the frequency page of the NIDS system was updated and standardized. The operational and technical functional specification of the NIDS system was also updated.
 - Coordination of the elaboration of the annual editions of LSSIP Romania – in March 2022, the specific activities for the elaboration of the LSSIP Romania 2021 were completed (document approved and signed by all participating institutions) and in the fall of 2022, the activities for the elaboration of the LSSIP Romania 2022 were started, by drawing up and disseminating the "Activity Plan for the elaboration of the LSSIP Romania ed. 2022", which includes the work schedule and responsibilities of the ROMATSA specialists involved in this process. For this purpose, the analysis of the changes brought by the European ATM Master Plan Level 3 - Implementation Plan (MPL3) 2022 edition was carried out, with impact in the elaboration process of LSSIP Romania 2022, with reference to the new implementation objectives and implementation objectives modified compared to the previous edition. Following the

elaboration of the LSSIP Romania 2021 - which includes the progress recorded until 31.12.2021 in the achievement of the implementation objectives, the specialists presented the analysis of the stage of their achievement, with an emphasis on the unplanned lines of action under the responsibility of ROMATSA, with a risk of delay and those reported with delays compared to the implementation deadlines of the European ATM master Plan Level 3 – Implementation View (Plan 2021).

- Implementation of the AMAN system at APP Bucharest (RAMANS) – ATM system experts coordinated the working group for the development and implementation of the AMAN system at APP Bucharest. The "Operational Concept for the Implementation of AMAN TMA Bucharest" was developed and approved. The functional requirements and specifications of the system as well as the specifications for the acquisition of the system were finalized during 2021. The financial situation of the directorate, as a result of the impact of the COVID-19 crisis, does not allow the start of this investment project earlier than 2023, to be completed in 2024.
- The performance plan for the third reference period 2020-2024 - participation in the activities of the working group "Documentation, development, promotion and support for the approval of the Performance Plan of Romania, in the part that belongs to ROMATSA for the third reference period 2020-2024", ensuring its coordination. The activities during 2022 focused on meetings with the Performance Review Body, the European Commission and the RCAA to discuss the elements of inconsistency identified in Romania's Performance Plan for the third reference period, revised in accordance with the Regulation (EU) 2020/1627. The PRB evaluation, taken up in the Commission's implementing decision (EU) 2022/728, assesses that exceeding the cost efficiency targets is only partially justified.

Following the analyzes carried out, the main assumptions were updated, namely the use of the traffic forecast published by STAFOR in June, the inflation estimate of the IMF and the updating of the cost of capital rate by using lower parameters for the equity rate and the new estimates regarding the evolution of interest on the contracted credit with state guarantees in 2021. Thus, the Performance Plan project meets 2 of the 3 cost efficiency criteria, with a unit cost determined below the average of the comparison group and with a trend over the reference period below the EU average.

The capacity incentive scheme for regulated terminal air navigation services was also amended to include a maximum penalty of 1%.

On June 15, the information-consultation process with the social partner took place, and on June 17, 2022, the consultations with airspace users took place. Also, on June 29, a new meeting was held with PRB, the European Commission and the RCAA to validate the draft Performance Plan before its official transmission. Later, on 12.07.2022, the revised and approved draft plan was sent to the RCAA and, on 13.07.2022, it was

officially submitted to the European Commission, for analysis, validation and approval. On 05.12.2022, Commission Decision no. 8740 regarding the coherence of the performance objectives included in the draft revised performance plan presented by Romania in accordance with Regulation (EC) no. 549/2004 of the European Parliament and of the Council with performance objectives at Union level for the third reference period. Later, the Ministry of Transport and Infrastructure adopted, at the national level, the Performance Plan

- ACE Benchmarking reporting - considering the predominantly operational nature of the requested information, the specialists took over the coordination of ACE Benchmarking reports, in collaboration with the other departments and services within ROMATSA. In 2022, the requested clarifications regarding the 2019 reporting were sent and the data for the ACE Benchmarking 2021 reporting were centralized.

- Analysis of the proposals and the European normative framework - experts participated to the elaboration of the ROMATSA positions sent to the RCAA in order to forward them to the Ministry of Transport and Infrastructure, for support during the meetings of the AVIA working group of the EU Council.

The main topics of interest for ROMATSA, among the Commission's proposals, are the rejection of separate economic certification, maintaining as optional the functional separation of route services from terminal services, clarifying the organization and role of the new Performance Review Body in relation to the national authorities.

Also, by holding the presidency of the GATE ONE Coordination Committee by the representative of ROMATSA, a consolidated presence at the European level was ensured to support the ANSPs from Central and Eastern Europe.

GATE ONE is a platform for synchronizing and promoting common interests, which ensures greater effectiveness of the lobbying activities of air navigation service providers in the Central and Eastern European region. The Gate One Coordination Committee (GCC) is the body that prepares the meetings of the general directors and coordinates the activities and positions. In the context in which, at European level, a process of updating the objectives, regulations and institutional framework for Single European Sky has been started, it is necessary to strengthen ROMATSA's presence at European level and build alliances to support common interests.

- Accessing European funds for operational projects – ATM system experts participated in the preparation of research and innovation projects for the directorate's participation in the call for proposals SESAR 3 JU: Digital European Sky Industrial Research 01 (action HORIZON-JU-RIA – HORIZON JU Research and Innovation Actions):
 - Air traffic control Trajectory based operations (ATC-TBO);

- Trajectory based operations Network thread (NETWORK-TBO);
- Mission trajectory in ATC and Network management operations (MITRANO);
- U-space separation management (SPATIO);
- Aerial mobility through vertiports network (ABOVE).

The specialists also contributed to the project proposal coordinated by the SDM and submitted for financing through the Connecting Europe Facility, related to the FF-ICE family, which includes two projects submitted by the management, namely the ATM 2015+S4D project which refers to the actual implementation of the FF-ICE functionality and the ROMairTCM (Automated Air Traffic Complexity Management System) project. The ATM 2015+S4D project will benefit from the contribution of the Network Manager – EUROCONTROL, which appreciated the project proposal and expressed its intention to collaborate, in particular, with ROMATSA.

- NDOP Operational Excellence Program – the program, started by the Network Manager in 2020, includes a series of operational and technical fields (with operational impact). Specialists coordinate the participation of ROMATSA as a leader (champion) in the field WST05 Enhancing sectors through including occupancies.
- Implementation of Mode S and Centralized Code Assignment and Management System (CCAMS) – As of October 15, 2021, ROMATSA has joined the pan-European CCAMS initiative, confirming its commitment to the highest safety standards and to the improvement of performance indicators in the field of capacity. CCAMS aims to overcome both the current and future shortage of Secondary Surveillance Radar (SSR) codes used in air traffic control and provides a unique SSR code for each flight operating in countries using the service. CCAMS optimizes the efficiency of SSR code management at European level by introducing the dynamic allocation of transponder codes, allowing the simultaneous use of the same code in volumes of airspace separated by a certain buffer zone. This approach ensures optimal use of SSR codes and reduces SSR code shortages and conflicts in the CCAMS region.

By applying CCAMS in Bucharest FIR, the management of SSR codes will be more efficient, increasing safety. This will also result in a reduction in SSR code changes, thereby reducing ATC workload and allowing more flights to be handled.

Being among the pioneers of the implementation of Mode S in the entire national airspace, through the activity of CCAMS, ROMATSA is placed among the first five air navigation service providers in Europe that have operationalized both concepts in accordance with

European regulations. In 2022, the automatic allocation of SSR codes was monitored.

- Participation in the project team for the implementation of the AIS Integrated Computerized System
- Implementation of the Traffic Complexity Tool (ROMairTCM) – participation in the implementation of the objective FCM06.1 – Traffic Complexity Assessment (defined in the European ATM Master Plan – Implementation Plan 2021, applicable to Romania). In the course of 2021, the specifications for the acquisition of the system and the functional, technical and safety specifications were finalized. Due to the financial difficulties of the directorate, generated by the COVID-19 crisis, the deadline for the implementation of the ROMairTCM system was postponed, the objective being rescheduled for the start of the acquisition and implementation procedure between the end of 2022 and the summer season of 2024.
- Common DLS Governance for Europe (CoDE Project). Participation in the activities within the CoDE Project (Common DLS Governance for Europe) – participation in the working sessions and providing comments/observations on the draft MoC Agreement. Internal collaboration on technical activities.
- IRIS - "Iris with Initial Operational Capability" (Iris with IOC project) - Iris aims to implement a high-performance satellite communications service for efficient airspace management.
- Coordination for the realization of the Coverage Study and the technical project for the installation of Radio Direction Finder sensors and the development of the processing platform for the operationalization of the Automatic Direction Finder - in May, the documentation for the public procurement procedure "Coverage study services and technical project for installation" was completed Automatic Direction Finder". Following the tender, the contract was signed with an association led by IQUAL TECH SRL and the licenses for the application for calculating the signal propagation of radio communication equipment, as well as the coverage and location studies, were delivered by the end of 2022. Staff training was also carried out in order to use the application.
- Participation in the activities of the working groups in level 2 of the SESAR 3 JU Coordination Forum.
- Preparation of Adaptation Data resectorization of ACC Bucharest

The dataset related to the new sectorization was prepared for implementation in the Indra simulator.

Recurring activities

- the development of procedures, rules, instructions (PINs), manuals specific to the activity and processes carried out, or specific to the operation of the ATM System;
- analyzing and approving documentation regarding ROMATSA investment objectives with operational impact;
- analysis of particular situations reported in the use of the ATM system by CTA (e.g. situations generated by the war in Ukraine: atypical flight plans, use of NATO SSR codes);
- participation in Danube FAB activities, operationally (ATM Development, ConOps, OSC). Participation in the correlation of the terms of the objectives contained in the national editions of LSSIP Romania and respectively LSSIP Bulgaria with the commitments and objectives defined at the Danube FAB level, within the Danube FAB Strategic Program and respectively Annual Plan. The experts also participated in the development of operational materials for the ANSP Board and Governing Council, providing input on the operational field for NMB;
- updating the databases of the ATM system - the activity is permanent and consists in the coordination of the periodic update based on the AIRAC Cycle of the geography of the operational system and the verification and testing of the implementation of changes in these systems. Recurring activity on the AIRAC cycle date;
- revision of the general plan of action in special situations - the activity consists in the regular updating of the local and general contingency plans. For the local Contingency Plans, the activity of harmonizing them was coordinated and a unitary template was created for all subunits. Meetings were held with the participation of subunit representatives;
- SAF – participation in the analysis of specific ANS/ATM events regarding the FDP, RDP, NIDS, RSUR components reported through REAC-03 forms. Coordination and participation in the development of security assessments related to changes in the ATM system;
- participation in the development of the ROMATSA Strategic Business Plan and the Annual Business Plan - participation in the correlation of the objectives defined in the Strategic Business Plan as well as in the analysis of the impact and implementation stage of the provisions of European regulations;
- external representation of ROMATSA at EUROCONTROL Network Directors of Operations, ODSG ATFCM Operations and Development Sub-Group, Flight Plan and Flight Data Evolutions Task Force, NETSYS, LSSIP Expert Group, SCPG-SSR Code Planning Group, TCFG Transponder Code Function Group, CANSO EASA Task Force, CANSO Performance & Financial Task Force, Gate One Coordination Committee;
- monitoring the use of SSR codes and reporting to EUROCONTROL/NM;
- preparation of documents and their amendments for introduction into the NIDS system;

- drawing up the AIP Romania penalty bases for the sections under the responsibility of the specialists;
- inspections, audits - carrying out operational inspections in the field of activity and drawing up inspection reports and maintaining records of the implementation of measures in the operational field established following inspections and audits;
- involvement in the activity of the ROMATSA Training Organization by participating as lecturers for operational staff courses;
- tutoring and guidance of the practical project for student interns of the Bucharest Aircraft Faculty (with a duration of 360 hours or 180 hours/intern, depending on the concluded agreement).

TECHNICAL ACTIVITY

Program coordination

- a) elaboration and reporting of RA ROMATSA's strategic planning documents:
1. Annual Plan (AP) 2022 ed. 4.0;
 2. The reports regarding the stage of evolution/achievement of the main lines of action of the objectives undertaken by RA ROMATSA in the Annual Plan - AP 2022, status as of June 30 and December 31, 2022;
 3. Updating the planning of the basic objectives from the BP RP3 2020-2024 Business Plan, ed. 1.0, October 31, 2019, to substantiate the revision process of PP RP3 2022-2024, in the context of the economic crisis generated by the COVID-19 pandemic, by amending Annex 2 to BP RP3 2020-2024 Multiannual Investment Plan and the Depreciation Projection.
- b) project management / working groups / other projects:
1. Synchronized Performance Based Navigation Implementation Cohesion Europe - SPICE - activities 6.1 and 6.3 within the INEA call Program
 - development of contracts for activity 6.1 - Design and implementation of GNSS SPICE procedures and conventional procedures for the design process of flight procedures at all 16 airports;
 - development of the contract for the activity 6.3. – Improvement of DME coverage in Bucharest FIR for the purchase and installation of 15 pcs. DME (12 DME within the SPICE project and 3 DME for TMA Constanța) ;
 - due to the blockages that appeared in the process of validating the instrument flight procedures, delays that successively led to the postponement of the contractual terms, as well as the RCAA response invoking the lack within ROMATSA of the function to monitor compliance with the design requirements, were negotiated

- and signed additional documents for successive extensions of the deadlines for completing the contracts, until 30.06.2024;
- from the point of view of costs , the Grant Agreement expired on 30.06.2022, but activities carried out until 31.12.2022 were recognized and validated.
2. Ensuring support services for the development and operation of the Braşov-Ghimbav International Airport (AIBG)
 - carrying out activities according to the RA ROMATSA – County Council Braşov Collaboration Protocol for the provision of support services for the development and operation of Braşov-Ghimbav International Airport, developed and signed in March 2019 (no. 046/04.03.2019).
 3. Ensuring post-warranty maintenance services of the E-management System
 4. GNSS signal monitoring system
 - carrying out the activity of preparing documentation, in order to launch the public procurement procedure, respectively as members of the Bid Evaluation Commission.
 5. participation in the activities of the various Working Groups/Project Teams, regarding the development/implementation of specific projects of the direction:
 - The working group for the development of the RA ROMATSA Strategy regarding the provision of ATM/ANS services at Romanian airports for the period RP3 - RP4 (measures established in RP3 with effect in RP4) ;
 - The project team for the Automated Air Traffic Complexity Management Application - ROMAirtCM;
 - The project team for the implementation of the S-GENERATION Project 2019/104278 Photovoltaic panel system intended for self-consumption, project financed within the EEA and Norway Financial Mechanisms 2014-2021.
 - The working group for updating Government Decision no. 74/1991 regarding the establishment of the Autonomous Authority " Romanian Air Traffic Services Administration" RA ROMATSA and Government Ordinance no. 46/1998 for the establishment of measures in order to fulfill the obligations assumed by Romania by joining the EUROCONTROL International Convention ;
 - The working group for the implementation within ROMATSA of the common requirements for providers of air traffic management and air navigation services (ATM/ANS) provided for by Regulation (EU) 2017/373;

- The working group for the Identification of ways to obtain additional income from consultancy and service provision in the area of activity of the directorate as well as from the capitalization of internally developed products and applications, in order to improve financial indicators ;
- The working group for updating the Methodology of accounting allocation of costs by activities ;
- The working group for the analysis of the final recommendations of the CCR following the mission Performance of specific activities carried out by ROMATSA, regarding the degree of achievement of performance indicators specific to ROMATSA activities established for the audited period.

Other activities:

1. the preparation of quarterly reports on the activity of executive management and on the evolution of RA ROMATSA in 2022, in accordance with the provisions of Emergency Ordinance no. 109/2011 on the corporate governance of public enterprises, approved with amendments and additions by Law no. 111/2016, respectively CAP. II Administration and management of autonomous regions;
2. providing the necessary data and information for reporting to the PRU in order to produce the ATM Cost Effectiveness Report - ACE 2021;
3. preparation of the non-financial Statement for 2021, included in the Administrators' Report on the financial statements on 12.31.2021.

Single European Sky and SESAR

General context

The year 2022 was a year of the return of traffic levels close to the pre-pandemic situation, but with increased volatility as a result of the impact of Russia 's war of aggression in Ukraine. At the level of policies in the field of the Single European Sky (SES), in 2022 the activities of the Council and the European Parliament to review the SES legislative framework (the SES 2+ package) started already in 2014, thus proposing an update of the legislation to keep account of recent developments and the general approach approved by the Council.

The European context is also dominated by new partnerships that are the object of research and industrialization, as well as the implementation of the SESAR Program (Single European Sky ATM Research), as the technological and operational pillar of the SES initiative. Thus, in 2022, ROMATSA joined the

SESAR 3 Joint Undertaking and continued its activities with a view to joining the new SESAR Deployment and Infrastructure Partnership - SDIP.

The SESAR program

SESAR Joint Undertaking

On November 30, 2021, Regulation (EU) 2021/2085 establishing joint ventures under the Horizon Europe program (SBA Regulation) was published in the Official Journal of the European Union L 427/17. It establishes the operation of nine joint undertakings, including the new Single European Sky ATM Research 3 Joint Undertaking – SESAR 3 JU.

Following the steps taken at ROMATSA level, in December 2021, ROMATSA became a founding member of SESAR 3 JU alongside 55 other European organizations in the field of civil aviation. Considering that SESAR 3 JU is co-financed by the European Union through the Horizon Europe research and innovation program, as well as the accelerated evolution and dynamics towards the digitization of technology in the ATM field, the involvement of ROMATSA in industrial partnerships that support research and the implementation of projects by granting European funds represents a solution that can contribute to the achievement of the long-term objectives of the directorate.

In 2022, at the ROMATSA level, more than 250 SESAR solutions proposed in the BAWP (Bi-Annual Work Programme) were analyzed and distributed. 8 SESAR solutions were identified, which were then grouped into five project proposals to be implemented by 5 separate consortia (industrial partnerships). Funding was requested for these within the call HORIZON-SESAR-2022-DES-IR-01, the action HORIZON-JU-RIA HORIZON JU Research and Innovation Actions.

SESAR Deployment

The SESAR Deployment Manager function has been renewed starting with June 2022, by concluding agreements between the SESAR Deployment and Infrastructure Partnership Consortium, of which ROMATSA is also a part, and the European Commission, respectively CINEA.

In 2022, ROMATSA participated in the stakeholder consultation process (SCP). The consultations looked at the SDP Supporting Material, a technical document that completes the SESAR Deployment Program 2022 and the AF6 Industrialization Needs Status Update, a report on the industrialization status of this functionality, which has a deadline of December 31, 2023 to be evaluated for maturity. The ROMATSA consultation took place within STEP 1, which includes NDTECH/NDOP Working Arrangements and stakeholder focal points and STEP 3, Investors Buy-In Group.

In parallel, the directorate, as a member of SDA AISBL, also supported activities carried out at the GMoM governance level/ meetings / seminars to start the procedures for the dissolution/liquidation of the organization, which remains largely without purpose. In order to ensure the closure of AISBL SDA activities in good conditions, a consulting firm was contracted and the liquidation deadline was postponed, for the first quarter of 2023.

SES/SESAR projects (SJU/ORIZONT 2020 SDM/CINEA)

ROMATSA participates in the SESAR implementation phases, through the SWIM Common PKI and SPICE projects that were completed until the end of 2022. Also, ROMATSA participates in the IRIS with IOC project, part of the IRIS Program (ARTES Satellite Communication for Air Traffic Management) that takes place under the auspices of the cooperation between ESA (European Space Agency) and the European Union, a project that is still ongoing.

SPICE – Synchronized Performance Based Navigation Implementation Cohesion Europe

The project took place simultaneously in four countries: Cyprus, Portugal, Romania and Slovakia under the coordination of EUROCONTROL. RA ROMATSA participates in the "PBN Deployment in Romania" activity, as a beneficiary alongside the Romanian Civil Aviation Authority and the Romanian Airports Association, and the Romanian air operators Blue Air and Regional Air Services are also part of the project for the aircraft equipment component. Following the implementation of the project by ROMATSA, 17 airports in Romania will have GNSS instrument approach procedures (augmented by EGNOS) and standard SID/STAR GNSS departure/arrival routes implemented, using satellite signals. Also, 12 high - precision equipment, DME, will be installed to support the implementation of performance-based navigation (PBN) concepts in the Bucharest FIR flight information region. The users of air transport on the territory of Romania will benefit from such high-performance services, at the highest standards of safety and efficiency, and the number of flights served in the Bucharest FIR will increase by optimizing the airspace.

SWIM Common PKI - "SWIM Common PKI (Public Key Infrastructure) and policies & procedures for establishing a Trust Framework".

- The project was accepted within the CEF Transport Call 2017 call for projects, being included in the field of ATM functionalities " AF5 - Initial System Wide Information Management", the sub-functionality " S -AF 5.1 - Common infrastructure components " , the family of projects " 5.1.4 - Common SWIM PKI and Cybersecurity " . RA ROMATSA participates as a contributor/beneficiary to this project, coordinated by the SESAR Deployment Manager (SDM) and EUROCONTROL, together with 28 other aviation stakeholders.

The aim of the project is to develop and implement a common framework for the integration of local implementations of public key infrastructure (PKI) in an interoperable manner, as well as for the provision of interoperable digital certificates to SWIM users.

The duration of the SWIM Common PKI project was 48 months - with a rescheduled completion date of June 2022.

IRIS WITH IOC (Initial Operational Capability).

In 2022, activities took place regarding the IRIS with IOC (Initial Operational Capability) Project following the signing of the contract in February 2020 with INMARSAT. The IRIS with IOC project aims to provide air-to-ground communications to support initial " 4D " flight path control, identifying an aircraft in four dimensions: latitude, longitude, altitude and time. This will enable accurate flight tracking and more efficient traffic management.

Other projects in development

Projects 2022 CEF 2 Transport Call

On September 13, 2022, CINEA launched the call for project proposals within the 2022 CEF Transport Call, with a submission deadline of January 18, 2023. The projects considered a priority by the European Commission regarding the implementation of the CP1 Regulation 1.

¹IMPLEMENTING REGULATION (EU) 2021/1116 OF THE COMMISSION of February 1, 2021 on the establishment of the first joint project supporting the implementation of the European General Air Traffic Management Plan provided for in Regulation (EC) no. 550/2004 of the European Parliament and of the Council, amending the Implementing Regulation (EU) no. 409/2013 of the Commission and repealing the Implementing Regulation (EU) no. 716/2014 of the Commission

After the consecutive analyzes of the management specialists and the participation in the sessions proposed by the SDM for each ROMATSA applicable family, it was considered that the project of interest for the management (taking into account the implementation deadline) is represented by the ATM sub-functionality for flight information exchange 5.6.1 Flight Information Exchange (FF-ICE).

the FF-ICE sub-functionality requires that the interested parties implement services that support the exchange of flight information, until 31.12.2025 .

The ROMATSA proposals include two projects, respectively:

- the ATM2015+S4D project that aims to ensure the implementation of the FF-ICE concept in a coherent and compatible/interoperable, following the guidelines included in the FPFDE Network Flight Plan Management Implementation Strategy.

and

- the ROMairTCM (Automated Air Traffic Complexity Management System) project, which aims to use an automatic and dynamic traffic forecasting and sectorization planning tool, which will support the local ATFCM and ATS units in the execution of tasks, to allow effective capacity and staff planning.

On November 10, 2022, the Mandate was signed and sent by which the directorate authorizes the SDIP Consortium, in the role of SDM, to undertake the necessary steps in order to submit the project proposals and , as the case may be, to sign the Financing Agreements, together with the adoption of the award decision by the European Commission.

Horizon Europe projects

Thus, in order to fulfill the commitments undertaken by ROMATSA as a result of joining SESAR 3 JU and to benefit from the non-refundable funds mentioned above, ROMATSA applied and was declared eligible in four projects, as they are described below:

1. Project "Trajectory based operations Network thread" [Project 101114748 – NETWORK TBO]

The NETWORK-TBO project proposes the validation of some SESAR solutions for integrated automation of the 4D trajectory in support of TBO, focused on the

development of a common 4D trajectory of the " end to end " type, shared between all applications that must process each flight and updated by each application acting on that flight to support ATM information provided from the ground. ROMATSA will contribute to Cluster 2 of the NETWORK TBO-3 solution (WP4) in order to carry out some " shadow mode " type validation exercises and the development of studies regarding the realization of coordination between ACCs and OLDI exchanges through SWIM YP.

2. *The "Mission trajectory in ATC and Network management operations" project [Project 101114760 – MITRANO]*

The MITRANO project addresses the emblematic activity of civil-military interoperability and coordination and offers a research and innovation platform for operational and technical solutions suitable to equally meet, the ambitions of the SESAR concept and the expectations of military airspace users in the future "Digital European Sky". ROMATSA will contribute to the realization of the project documentation and the validation of two exercises coordinated by EUROCONTROL (EXE MT-NM) and by LENARDO (EXE MT-ATC02). These aim to demonstrate the validity, feasibility and benefits in terms of ATM performance for civilian and military operational stakeholders of integrating MT data into NM processes and systems (IFPS, PREDICT, ETFMS) and MT management in the ATM execution phase (strategic and tactical ATC IFR en route operations).

3. *The "U-space separation management" project [Project 101114674 – SPATIO]*

The SPATIO project will research advanced services related to strategic solutions and conflict tactics and dynamic capacity management. It proposes two different SESAR solutions regarding separation management in U-space airspace, which involve ensuring separation management through the strategic resolution of UAV operational plan conflicts and providing new functionalities for the short-term deconfliction of the UAV/UAS during the execution of the operation. ROMATSA will contribute to the work package WP1 in order to create the project documentation and to validate some exercises coordinated by Indra. Validation will be performed in Romania, in a predefined operational environment, with the participation of real UAS operators and other relevant actors (police, MIL, etc.).

4. *The "Air traffic control Trajectory based operations" project [Project 101114808 – ATC-TBO]*

The ATC-TBO project proposes the validation of three SESAR TBO solutions for flights in the tactical execution phase for en-route and TMA

operations. The proposed SESAR solutions, indicating the technological readiness levels (with the associated EOCVM level) at the beginning and at the end of the project, concern the improvement of automation in sector planning and separation management by means of improved predictions trajectories and control instruments, improving air/ground trajectory synchronization through complex lateral and vertical CPDLC authorizations to support TBO, and developing advanced separation function management concepts and tools using more reliable trajectory information and advanced use of data links/CPDLC .

Common Governance of DLS for Europe (CoDE) - ACDLS

CoDE was launched by the A6 Alliance with the support of the SDM in March 2020 and aims to accelerate as much as possible the establishment of a common European governance for data link services.

2021, the ACDLS (ATS Common DLS Governance) cooperation memorandum was signed, which established: governance, policies and cooperation processes between the parties to improve and promote the development of an approach common areas , of the vision, design , acquisition, management and common services of DataLink.

In 2022, ROMATSA undertook all the necessary steps, internally, to ensure the participation of the directorate in the ACDLS governance

ACDLS common procurement agreement (CPA) – The objective of the common procurement agreement for ACDLS is to select, following the tender, the DataLink service provider (DSP) as the sole supplier for the signatory parties and to purchase common services of ATS data. EUROCONTROL, as procurement agent, will be mandated to manage the procurement procedure for DSP selection and contract signing on behalf of the signatory parties.

In this sense, in 2022 the Joint Purchase Agreement for ACDLS was drawn up and changes were made to the annexes of the ACDLS memorandum, also signed by ROMATSA in 2021.

They will be approved at the Top Management Body (TMB) level in early January 2023.

Compliance with the requirements of Implementing Regulation (EU) 2017/373

The process of complying with the means, procedures and other arrangements established and/or used and described by the written presentation of the organization is carried out in accordance with the provisions of the Implementing Regulation (EU) 2017/373 establishing common requirements for providers of air traffic management/air navigation services and other functions of the air traffic management network and for their supervision.

In 2022, ROMATSA undertook specific actions regarding compliance with the provisions of the Implementing Regulation (EU) 2017/373 and, implicitly, the process of updating the ROMATSA Exhibition to document the certification as an ATM/ANS supplier, in order to meet the deadline of January 27, 2022, provided for by Implementing Regulation (EU) 2020/469 amended by Implementing Regulation (EU) 2020/1177.

At the same time, during the ATM/ANS standardization visit, carried out by EASA in July 2022 at AACR, ROMATSA was selected in the sample group of enterprises under the supervision of RCAA as a competent authority, with the sole purpose of evaluating the effectiveness of RCAA in what concerns the supervision of ROMATSA in terms of its certification and continuous supervision. Therefore, during this visit, ROMATSA offered the visiting inspection team a better one understanding of the management (structure, type of navigation services provided, particularities, etc.) before the on-site visit.

At the same time, as a result of the process of updating the ROMATSA certification documentation, on July 11, 2022, RCAA issued the 2nd edition of the Service Provider Certificate no. CN 01, coming into force on July 20, 2022.

Reforming the SES regulatory framework (SES2+)

The reform of the SES regulatory framework consists of an amended proposal on the implementation of the SES and the amendment of the EASA Regulation. Thus, the European Commission proposed, at the end of 2020, the merging of the existing SES regulations into a single regulation and the elimination of overlaps with the EASA basic regulation.

In this sense, throughout 2022, ROMATSA continued its internal consultation activities in order to facilitate the outline and expression of coordinated positions of Romania in the European process of negotiating the legislative package within the SES2+ working group established at the national level at the MTI/DTA initiative. The main interventions of ROMATSA were the elaboration of observations and proposals for amendments to the SES2+

compromise text, as well as proposals for mandate elements in order to support them within the AVIA Group of the Council of the European Union and within the TTE Council by the transport attaché from within the Permanent Representation of Romania to the European Union.

Objectives for the year 2023

Regarding the modification of the regulatory framework of the single European sky, ROMATSA aims to react pragmatically and in time regarding those proposals that may have an impact on the regulation.

Accessing European funds can be one of the tools that allow the consolidation of ROMATSA's position on a regional and European level and an effective lever for the development of new opportunities. Thus, based on the participation as a founding member of SESAR 3 JU and SDIP, ROMATSA aims to continue and intensify its efforts in 2023 to ensure participation in European projects related to the research and industrialization phases as well as to those of development and implementation of SESAR.

Regarding the continuous compliance with the common requirements for the provision of air navigation services, ROMATSA aims to continuously comply with the specific requirements and the common requirements set out in the Implementing Regulation (EU) 2017/373.

Systems development

In 2022, along the lines of systems development, the following activities were carried out:

- Activities related to the implementation of the ATM 2015+ (INDRA) and AviBit projects
 - analysis of the Indra specifications and participation in the testing of ATM System 2015+ updates: Patch 2 Post-SAT, Patch Post-ODATE Ph2, Patch 2 Post-ODATE Ph2, Patch WB1 (warranty build), Patch 1 WB1;
 - transition to ADEXP, route activation in OLDI messages and activation of transfer messages with UkSATSE Lviv (testing, reporting, LoA modification);
 - transition to ADEXP, route activation in OLDI messages and activation of transfer messages with MOLDATSA Chisinau (testing, reporting, LoA modification, implementation in operational dataset, operation monitoring);
 - transition to ADEXP, route activation in OLDI messages and expansion of the OLDI message set (including transfer messages with SMATSA Belgrade (testing, reporting, LoA modification, implementation in operational dataset, operation monitoring);

- participation in the OLDI interoperability testing in the ATM 2015+ System and the BULATSA ATM System in order to expand the set of OLDI messages used, respectively the activation of the route;
 - ensuring the necessary configuration to display the integrated weather radar image on CWP ATM 2015+ screens;
 - analysis of complaints of incorrect operation of the ATM 2015+/Indra System (OLDI, data link, terminal charging) received either from external partners or from internal users of the system.

- Internal SDS projects
 - checking the ConvCAT9 system from the point of view of interoperability, preparing the technical file, obtaining the RCAA authorization and putting into operation the weather radar data converter in order to transmit the national integrated weather radar image in ASTERIX Cat009 format to the ATM 2015+/CWP system;
 - completion of the data link performance monitoring indicator calculation application (DLStat) based on DL-FEP server trace logs and ATM 2015+ system logs, flight plan data and surveillance data records, including development software, automatic data collection and transfer scripts, server and workstation configuration;
 - development of the application for providing flight plan data to the IGPF UNIP (General Inspectorate of the Border Police - National Passenger Intelligence Unit), for take-offs/landings in the Bucharest FIR space;
 - development of the RadMON application for monitoring the operation of surveillance sensors based on data provided by the SASSC application - ongoing;
 - starting the development of the updated and integrated version of the system for recording data about the real routed traffic and the invoicing of air traffic services en route and in the terminal area;
 - configuring and providing technical support for the transfer of a PASACT station from COA Balotești to Câmpia Turzii and for the creation of an FMTP MIL TDS connection – Câmpia Turzii;
 - modification of the SRS-WIND application in order to provide additional data;
 - maintenance of the invoicing application for air traffic services in the terminal area and ensuring the necessary configurations for compliance with AIP Romania, including the module for issuing navigation slips;
 - coordinating the introduction and updating of technical-operational configuration data of SNA support IT systems (Leonardo, RSUR, charging systems);
 - adding new functionalities to the SO6 file processing application used for air traffic analysis.

- International cooperations
 - participation in TWG (Technical Working Group), SAPSC (Strategy and Planning Standing Committee) Danube FAB;
 - participation in the European working group for the revision of the OLDI standard and the development of an implementation guide for the OLDI standard, aiming at the inclusion of new operational concepts (FRA, re-entry, DataLink);
 - participation in the working group of data transmission centers for invoicing en route air traffic services (CRCO).

- Activities related to other ROMATSA projects
 - participation, within the project team for "Assuring support services for the development and operation of the Braşov International Airport, respectively the implementation of the Remote Tower Braşov solution at the CDZ Arad", by preparing the SRS system for use at the work positions related to the Braşov Airport in the CDZ Arad (elaboration of the technical project, preparation of the technical file in order to reauthorize the system, participation in the development of the safety case);
 - preparation of ROMATSA's participation in the SESAR 3 program, preparation of the SESAR 3 Network TBO Solution3 project – BULATSA, ROMATSA and Leonardo participation);
 - participation, within the RomAirTCM (Traffic Complexity Management) project team – developing the operational concept, functional specifications and specifications, choosing the power supply solution for this OLDI message system or flight plan trajectories;
 - providing support for the provision of data necessary for the preparation of noise maps at Târgu Mureş, Iaşi, Baia Mare, Satu Mare airports;
 - participation in the ROMATSA team established for the purchase of an AIM system - system installation/configuration;
 - participation in the development of LSSIP Romania ed. 2021;
 - participation in monitoring the implementation of the SESAR Deployment Programme.

- Activities carried out in the line of IT security
 - implementation of the IT Security Management System for operational systems;
 - participation in the preliminary stages of definition and development of a SOC (Security Operations Center) within ROMATSA.

Investment objectives

In the investment activity, the following permanent activities were carried out:

- activities for the purchase of design services, construction works, assembly and products from the list of capital expenditures for the year 2022 were organized and carried out;
- the contracts signed with suppliers from the country and abroad for the investment objectives were finalized and followed up;
- members were secured in the evaluation commissions for the acquisition procedures related to the investment objectives;
- handover activities were carried out for sites for construction and assembly works and investment objectives were inspected in order to follow up and coordinate the execution of the works according to the approved projects;
- receptions were organized and carried out for the investment objectives upon their completion;
- activities of the Technical-Economic Board of ROMATSA were organized and carried out;
- the design themes, projects and procurement documents related to the investment objectives were submitted for approval;
- the progress of the works was monitored according to the deadlines in the execution schedules attached to the contracts with the general contractor, subcontractors and other contracts and the provisions of the contractual clauses (penalties, damages and others) were applied, when necessary, in case of non-compliance with these deadlines;
- the implementation of the plan of measures to improve the directorate's activity was followed.

Implementation of the Investment Program

The list of capital expenditures, approved for 2022 by the Board of Directors of RA ROMATSA, is broken down by chapter, as follows:

- Chapter A – Further investment objectives: 48,316,691 lei
- Chapter B – New investment objectives: 8,031,641 lei
- Chapter C – Endowments and other investment expenses: 8,399,491 lei
- Chapter D – Loan repayments: 0 lei

Below, we present the status of achievements, for each individual objective, on the component chapters of the investment program:

No. crt.	Nomination of investment objectives	Deadline	Achieved 2022 (%)
<i>OBJECTIVES IN CONTINUATION</i>			
1	Extension of the VoIP Recording facility to	December	Not

	13 ATIS UHER systems (Sibiu, Cluj, Tg. Mures, Baia Mare, Satu Mare, Oradea, Suceava, Iasi, Bacău, Băneasa, Otopeni, PNA Cluj – DR Bucharest, PNA Bacău – DR Bucharest)	2024	applicable. No value approved in 2022
2	Modernization of the ACC hall in CDZ Bucharest (console modernization)		
2.1	Console upgrade/modernization	December 2024	Not applicable. No value approved in 2022
2.2	Modernization of the power supply system, equipment, racks and working positions in the ACC room	December 2024	Not applicable. No value approved in 2022
3	ATM System 2015+ (SW, HW) Phase 2	February 2022	98.93%
4	Annex building CDZ Constanța equipment	December 2022	71.49%
5	Radar PSR/MSSR Mode S SITORMAN (Constanța)	December 2025	Not applicable. No value approved in 2022
6	The concrete platform at the VHF Reception Center in the AIHCB premises	December 2022	2.41%
7	Modernization of CA System and BMS System CDZ Bucharest	December 2022	71.83%
8	Integrated AIS computerized system	December 2022	99.67%
9	CDZ Bucharest lighting modernization	December 2023	Not applicable. No value approved in 2022
10	GNSS signal monitoring system	December 2025	0.00%
11	Air conditioning system equipment technical and operational room APP Constanța	March 2023	4.58%
12	Power supply TWR Baia Mare	December 2022	0.00%
13	Extension of WAM surveillance in EST FIR Bucharest	December 2023	82.75%
14	ATM system preparation for AMAN implementation at APP Bucharest	December 2024	Not applicable.

			No value approved in 2022
15	Air traffic load and complexity analysis and estimation application (ROMair TCM)	June 2024	0.00%
16	AWOS semi-automatic meteorological observation system at 16 airports	December 2023	29.15%
17	Extension of the VoIP Recording facility to 5 NICE Inform systems (Constanța, Arad, DR Bucharest, Tulcea, Timisoara)	December 2024	Not applicable. No value approved in 2022
18	A/G VHF radio communication stations (ENR)	December 2024	0.00%
19	Photovoltaic panel system for self-consumption CDZ Bucharest	September 2022	97.57%
20	SOC (Security Operations Center)	December 2027	Not applicable. No value approved in 2022
21	Strengthening the operational capacity of the CC SAR – replacement of SAR infrastructure	September 2023	Not applicable. No value approved in 2022
22	CDZ Bucharest main electrical equipment monitoring system	September 2022	0.00%
2.3	Modernization of DSNA Timisoara Control Tower	December 2023	Not applicable. No value approved in 2022
24	Wind shear detection system at AIHCB (LIDAR)	December 2022	81.21%
25	Modernization of the rest room and the control room at DSNA Oradea	May 2022	99.68%
<i>NEW OBJECTIVES</i>			
1	Computerized System for Air Space Management & Air Space Design	December 2024	Not applicable. No value approved in 2022
2	Modernization of ILS/DME Iasi RWY 14	December 2023	0.00%
3	Modernization of DVOR/DME Tulcea	December 2024	Not applicable.

			No value approved in 2022
4	Air conditioning system for offices of administrative bodies CDZ Bucharest	December 2022	21.63%
5	Telephone exchange CDZ Bucharest	December 2023	40.65%
6	Replacement of dual UPS Administrative 120kVA CDZ Bucharest	December 2022	76.70%
7	Modernization of secondary panels CTO CDZ Bucharest	April 2023	8.87%
8	Modernization of the hydraulic and automation structure of the CDZ Bucharest thermal plant	May 2023	2.39%
9	Power supply and air conditioning modernization TWR (Timișoara, Arad)	December 2024	0.00%
10	VCS system installation in Arad and Constanta	December 2024	0.00%
11	Radio relay line CDZ Bucharest CE Coștila	December 2022	98.04%
12	D-ATIS system at DSNB Cluj and APP Bacău	December 2023	0.00%
13	Modernization of A-SMGCS AT DSNB Bucharest – Implementation of Advanced Tower Mesaging	June 2023	99.48%
14	ARTAS system at DR Bucharest	December 2022	99.80%
15	ATIS RCR software update	December 2022	0.00%
<i>INDEPENDENT EQUIPMENT AND OTHER EXPENSES - STUDIES</i>			
1	Independent facilities	December 2022	89.28%
2	Other expenses - studies	December 2022	68.69%

Differences recorded in relation to the objectives

The differences between the approved values and the realized values are largely caused by the following factors:

- the technical and operational complexity of the equipment/systems leads to open tender procedures being carried out for long periods of time (6-12 months), with effects on the realization of the approved values;

- ongoing contracts where, for technical and operational reasons, the deadlines for the completion of some contractual stages have been delayed;
- the signing of contracts, following the procurement procedures, at values lower than those estimated in the investment plan;
- the signing of contracts in the last quarter of the current year with realization in the following year;
- the cancellation and repetition of some procurement procedures due to the non-participation of potential suppliers;
- canceling and repeating some procurement procedures due to the presentation of offers with values higher than the approved budgets;
- issuing, with difficulty, the approvals for the investment objectives that require obtaining them before the start of the works.

AVIATION SAFETY, QUALITY, ENVIRONMENT AND SECURITY

The main objective for the year 2022 of the activities in the field of safety and quality consisted in the improvement and consolidation of the Safety Management System, the Quality Management System, the Environmental Management System, as well as the Aeronautical and IT Security Management System in order to maintain ATM/ANS service provider certificate - ensuring continuous compliance with the provisions of Regulation (EU) no. 373/2017, the ISO 9001:2015 standard, the ISO 14001:2015 standard and the ISO 28000:2007 standard.

Activities in the field of safety management

The main activities carried out during 2022 in the field of safety management were:

- improving the Safety Management System in accordance with the RCAA, EASA and ICAO recommendations in order to increase the safety level of the ATM/ANS services provided by ROMATSA;
- the internal safety audit of the management's subunits (all 17 internal safety audit missions, planned for 2022, were carried out);
- providing specialist support during audit/inspection/on site/on the desk visits of the RCAA and EASA within the process of monitoring the continuous compliance of the aeronautical agent RA ROMATSA, certified as an ATM/ANS service provider;
- analysis of the audit reports, respectively inspection, prepared by the RCAA/EASA, establishing the measures to remedy the deficiencies found through the elaboration of the measures plans at the ROMATSA level, following the implementation of the established measures,

collecting the evidence/proofs regarding the implementation of the plans;

- the analysis of safety evaluation reports or evaluation in support of safety associated with the implementation of changes to the existing ATM/ANS ROMATSA functional system;
- collecting information about reported safety events, investigating them and tracking the implementation stage of safety recommendations (required corrective and preventive measures);
- the use of the RAT methodology to assess the severity for events such as: minimum stagger violation, runway incursion and specific ATM - degradation or total loss of services or functions;
- the use of the eTOKAI application at the level of management for the electronic reporting of civil aviation events;
- internal training in the field of safety, provided by specialists for personnel from the safety structure and other ROMATSA departments (internal training);
- monitoring performance indicators in the field of safety, in accordance with the requirements of the Performance Plan for the third reference period, RP3;
- monitoring the implementation of the provisions of the "Safety Management Manual", the editions in force/2022 and its amendment as a result of the internal safety monitoring and supervision process in accordance with compliance with the requirements of Regulation (EU) no. 373/2017.

Throughout 2022, special attention was paid to the operation of the safety event reporting system and the informational content circulated with this system.

In this system it is specified that safety monitoring resulted in the registration of 1548 civil aviation events. It can be appreciated that the reporting of civil aviation events was still at a high level.

The investigation of safety events is a "specialty investigation" and is performed solely for the purpose of maintaining and improving the safety of air navigation. The research and identification of the causes of a safety event are not aimed at blaming or sanctioning the participants in the provision of the ATM/ANS services involved.

ROMATSA, through the safety structure, consistently promotes the safety culture which is based on competence, the reporting of safety events, the right judgment (Just Culture), flexibility and the exploitation of experience.

Analyzing these events, extracting the useful information needed to establish safety recommendations - RS (corrective and preventive measures), 46 in 2022, involved a large volume of work for safety experts and investigations, in the context of a permanent collaboration with the staff from the Operational Department, the Technical Department and from ROMATSA subunits. The stage of implementation of the corrective and preventive measures proposed and recorded in the closing reports of the investigation of safety events was followed, consistently, both dedicated and within the internal safety audit visits carried out in the subunits and compartments of the ROMATSA Central Administration.

ROMATSA's safety objective is to ensure a level of safety so that the number of accidents and serious incidents, with the contribution of the services provided by ROMATSA, does not increase and, when possible, decreases.

In 2022, no accidents or serious incidents were recorded with the contribution of ROMATSA, so the safety level achieved during the analyzed period is better than the minimum acceptable safety level (NSmA).

Through the contribution and joint effort of the DSC staff, the staff from ROMATSA structures with attributions in the fields of safety, quality, environment and security (local coordinators in the field), as well as all ROMATSA employees, it was possible to achieve the proposed objectives in 2022:

- maintaining the ATM/ANS service provider certificate by completing on time and in good conditions the process of verifying the organization's compliance with the applicable requirements of Regulation (EU) no. 373/2017;
- maintaining the certificates of the Quality and Environmental Management Systems in accordance with the requirements of ISO 9001:2015 and ISO 14001:2015 and maintaining the aeronautical IT security standards, according to the requirements of the National Aeronautical Security Program = PNSA and Regulation (EU) no. 373/2017.

The fields of quality and environment

The main objective for the year 2022 was the improvement and consolidation of the Safety Management System and the Quality and Environmental Management System to ensure the maintenance of the validity of the certificates attesting compliance with the requirements of Regulation (EU) no. 373/2017, ISO 9001:2015 and ISO 14001:2015 standards.

The specific objectives by fields of activities were subordinated to the continuous improvement of the Safety, Quality and Environmental Management Systems, the implementation in ROMATSA of the Security Management System (aeronautical and informative) and the proper operation of the Danube FAB.

The main activities carried out during 2022 in the field of "quality and environmental management" were:

- the internal quality and environmental audit of the Central Administration and the governance subunits (17 internal quality and environmental audits were carried out, planned for 2021);
- drawing up reports and action plans following internal quality and environmental audits, as well as tracking the implementation stage of the established measures;
- verifying, within the internal quality audits, the way of managing risks on activities within RA ROMATSA;
- monitoring performance indicators in the field of quality;
- monitoring performance indicators in the field of the environment, in accordance with the requirements of the "National Performance Plan";
- dissemination, by the safety and quality specialists, within the entire ROMATSA SMS and SMC/SMM structure during the safety, quality, environment internal audit activities, as well as those related to the maintenance of ROMATSA certificates according to Regulation (EU) no. 373/2017, ISO 9001:2015 and ISO 14001:2015, of the information and recommendations contained in the RCAA, Bureau Veritas audit and surveillance reports and in the internal safety, quality and environmental audit reports;
- the monitoring and evaluation, during the internal quality and environmental audit, of the degree of maturity and the weak points of the Poor Quality System and the Environmental Management System within the directorate, as support for management in the process of continuous improvement;
- monitoring the satisfaction of internal (employees) and external customers, achieved by collecting, centralizing and processing data from specific questionnaires;
- carrying out the Management Analysis, at the highest level, of the Quality and Environmental Management System in order to improve these systems;
- training of Local Quality and Environment Coordinators in order to prepare the Bureau Veritas surveillance audit;
- participation in the conduct of the surveillance audit by the Bureau Veritas company, in order to reconfirm for ROMATSA the ISO 9001:2015 (quality field - including the training of specialized personnel for the field of air navigation services) and ISO 14001:2015 (medium field) certificates in Central Administration and in the following subunits of the

directorates: DR Bucharest, DSNAR Constanța, DSNA Tulcea and DSNA Craiova;

- mention of SMC and SMM ROMATSA certifications according to ISO 9001:2015 and ISO 14001:2015 Standards, following the external surveillance audit of Bureau Veritas;
- the participation of quality and environment specialists in environmental projects aimed at reducing greenhouse gas emissions, improving air quality in airport areas and reducing noise;
- ensuring the representation of ROMATSA in the areas of quality and environment in the EUROCONTROL, CANSO and Danube FAB working groups.

The quality level of the services provided

The quality level of the services provided is also attested by the maintenance of the ROMATSA Quality Management System certification following the surveillance audit carried out by the Bureau Veritas company.

It should be noted that, during the surveillance audit, no non-conformities and observations were identified. RA ROMATSA's Quality Management System was assessed as mature, according to the ISO 9001:2015 Standard, which was continuously improved, correlated with the safety requirements imposed by the applicable operational regulations. RA ROMATSA's Environmental Management System is mature, being properly documented, meeting all the requirements of the ISO 14001:2015 Standard, thus ensuring the premises of a good environmental performance.

The audit team found a good knowledge of the Quality Management System, respectively of the Environmental Management System by the staff involved and implicitly a level of implementation appropriate to the current stage. Also, the continuous effort to maintain a high level of operational performance and to update documentation and procedures, in accordance with changes in reference standards and applicable regulations, was appreciated. The continuous improvement process of the Quality and Environment Integrated Management System was observed by the audit team during the entire audit, as evidence of the implementation of the measures decided within the Management Analyzes carried out by the RA ROMATSA management, as results of the implementation of the action plans aimed at reducing risks and implementing identified opportunities (in the risk management process). In addition, compared to the above, it was considered that the operation of three management systems - Quality/Environment, Aeronautical Safety and Security and IT, with effective mechanisms for identifying non-conformities, treating them and following them up, are obvious tools of improvement.

The quality of the services offered at this moment by the directorate confirms the fact that the constant and continuous performance of the rigorous

internal safety, quality and environmental audit process is a necessary and useful mechanism for maintaining a high level of service quality.

The level of service quality is monitored annually through "service quality indicators", namely:

- streamlining of traffic;
- capacity per FIR;
- customer satisfaction;
- availability of PNA equipment;
- index of timely availability of meteorological data.

These indicators were realized in 2022 at the level of the entire ROMATSA, their analysis being carried out within the Management Analysis.

KPIs

Performance indicators in the field of service quality

OBJECTIVES		INDICATORS	TARGETS (maximum acceptable annual values)	ACHIEVEMENT STAGE 2022	
Increasing the quality level of air traffic services	Streamlining of traffic	Minutes en route delay due to unplanned personnel issues – code S	max. 0.05 min/flight	0	accomplished
	Capacity on FIR	Number of aircraft/hour/FIR	183	101	Done (no capacity gap)
	Customer satisfaction	Number of complaints with relevance in ATM	maximum 6	4	accomplished
Availability of PNA equipment (indicator from the process sheet)		No. of operating hours/no. total hours declared (%)	min. 95%	95.22%	accomplished
Timely weather data availability index (process sheet indicator)		No. of messages sent and received/no. total number of messages to be sent (%)	min. 90%	97.00%	accomplished

The ROMATSA quality objectives for 2022 have been met.

Through the joint contribution and effort of the safety and quality experts, of the personnel from the ROMATSA structures with attributions in the fields of safety, quality, environment (local coordinators in the field), as well as of all ROMATSA employees, it was possible to achieve the proposed objectives in 2022:

- maintaining the RA ROMATSA certification as a provider of air navigation services/air traffic flow management (ATFM) and airspace

management (ASM) functions following the AACR verification process of the organization's compliance with the applicable requirements of Regulation (EU) no. . 373/2017;

- maintaining the certifications of the Quality and Environmental Management Systems in accordance with the requirements of ISO 9001:2015 and ISO 14001:2015.

The field of aeronautical and IT security

Aeronautical security

In the field of aeronautical security, a series of activities have been undertaken to maintain an acceptable level of aeronautical security according to the requirements of the "National Aeronautical Security Program" and the Implementing Regulation (EC) no. 373/2017 establishing common requirements for providers of air traffic management / air navigation services and other functions of the air traffic management network and for their supervision, repealing Regulation (EC) no. 482/2008, of the Implementing Regulations (EU) no. 1034/2011, (EU) no. 1035/2011 and (EU) 2016/1377, as well as amending Regulation (EU) no. 677/2011, as follows:

- tracking the implementation stage of the action plans resulting from internal aeronautical and IT security audits/inspections from 2021;
- the preparation and transmission to the Romanian Civil Aviation Authority (the RCAA) - Aeronautical and Cyber Security Directorate, by the deadline (January 30, 2022), the Annual Report on the activities carried out in the field of aeronautical security and information during 2021;
- preparation of the Annual Audit Report for 2021, aeronautical and cyber security section;
- elaboration of the Activity Report for the year 2021 in the field of aeronautical and cyber security;
- the development of the 2022 activity plan in the field of aeronautical and cyber security;
- the preparation of the files and the completion of the recruitment process of the persons to be appointed as Local Aeronautical Security Officers for some RA ROMATSA subunits;
- conducting aeronautical security training for RA ROMATSA personnel with attributions in the field of aeronautical security (RLSA/security dispatch operators);
- carrying out the necessary steps for ROMATSA employees to participate in the AVSEC training course, as follows: Base Aeronautical Security, AVSEC Instructor, Security Manager – Recurrent Training, Security Manager, Persons who receive bomb threats by phone, Bomb threat assessors;

- the elaboration and transmission of "Aeronautical Security Notifications" to ROMATSA subunits;
- processing requests for access to CDZ Bucharest;
- performing background checks on requests for controlled access permits;
- processing the files of employees of commercial companies that, based on commercial contracts, provide services for ROMATSA;
- the amendment and transmission to the regulatory subunits of the aeronautical security procedure regarding "Quality control in the field of aeronautical security", ed. 4.0/16.05.2022;
- amendment and transmission to RA ROMATSA subunits of the "Aeronautical Security Training Program", ed. 5.0/16.05.2022;
- the elaboration and transmission of "Aeronautical and IT security inspection/audit plans" to the DSNB Oradea, DSNAR Arad, DSNB Craiova, DSNB Bucharest, DSNAR Constanța subunits;
- participation in the annual meeting of security managers organized, in October 2022, by the Association of Romanian Airports (AAR) in coordination with the RCAA;
- the preparation of files for the Higher School of Civil Aviation (SSAvC) in order to carry out specific training for the management staff of the central administration and sub-units, with attributions in the field of aeronautical security (Base Aeronautical Security, AVSEC Instructor, Security Manager – Recurrent Training, Security Manager, Persons receiving bomb threats by phone, Bomb threat assessors);
- carrying out aeronautical and IT security inspections-audits at RA ROMATSA subunits – DSNB Oradea, DSNAR Arad, DSNB Craiova, DSNB Bucharest, DSNAR Constanța;
- preparation and participation in the aeronautical and IT security audit carried out by the competent authority in the field of aeronautical security – the RCAA, at RA ROMATSA, in June 2022;
- preparation and approval of inspection/audit reports at RA ROMATSA subunits - DSNB Oradea, DSNAR Arad, DSNB Craiova, DSNB Bucharest, DSNAR Constanța.

Information security

In the field of information security, a series of activities were undertaken to maintain an acceptable standard of information security according to the requirements of the "National Aeronautical Security Program" and the Implementing Regulation (EC) no. 373/2017, as follows:

- elaboration and submission of cyber security requirements for the weather system - AWOS (MET);
- participation in the certification and validation of documents in the field of cyber security sent by IDS Air Nav (AIS project);
- submission of proposals for updating the "Danube FAB Annual Plan" - cyber security section;

- taking steps and participating in the Cydex 2022 exercise, organized by the Cyberrint Center of the Romanian Intelligence Service;
- analysis and distribution of cyber security alerts sent by EATM – CERT (EUROCONTROL);
- amendment of the "Information Security Management Manual (MMSI) ed. 2.0/17.04.2022;
- drawing up the document "List of operational systems that have an impact on civil aviation safety", part of MMSI - Annex 3;
- preparing answers to the Ministry of Transport and Infrastructure and the National Cyber Security Directorate (DNSC) and transmitting the requested information;
- drafting and sending the reply addresses to the Minister of State (MTI)/Cyber Security Director (DNSC), regarding the request to register RA ROMATSA in the register of essential services - ROSE;
- the transmission of the notification to the RCAA and the point of view to the CANSO Cyber TF, regarding the IATA's position of postponing the proposed EASA regulation in the field of cyber security;
- the elaboration and transmission of ROMATSA's point of view to ESCP (European Strategic Coordination Platform)/EASA regarding certain AMC/GM type requirements from the proposed EASA regulation in the field of cyber security;
- analysis and transmission of the point of view to the CANSO – Cyber Security Task Force regarding the AMC/GM Part IS document (the new Regulation (EU) in the field of cyber security in civil aviation);
- participation in the activities of the IRIS IOC Deployment working group;
- completion and verification of the purchase documentation of the ROMairTCM system with information security requirements;
- the organization of meetings, at the RA ROMATSA headquarters, with Orange Romania, BRD, Jones Group – IBM, Dynatrace for exploratory discussions in order to clarify the necessary stages for the implementation of a Security Operations Center within the directorate;
- the elaboration and transmission of the response notification to the Cyberprint request (SRI) regarding the participation of RA ROMATSA in the project "Ensuring cyber protection for both public and private ICT infrastructures with critical values for national security";
- participation in the cyber security activities proposed by IDS Air Nav for the implementation of the new ROMATSA AIS system;
- updating the ROMATSA Exhibition in the field of cyber security;
- Update of the "Danube FAB Strategic Program" - cyber security section;
- The development, jointly with the Bulgarian side, of the "Danube FAB Information Security Policy" document, ed. 2.0.

Key performance area regarding the environment

Within the key area regarding the environment according to the Performance Plan, the key performance indicator – KEA – the average

efficiency of the horizontal route flight corresponding to the effective trajectory is monitored at the European level by PRU EUROCONTROL.

Romania	Target 2022	Target 2022 EU level	accomplished
KEA	2.05%	2.40%	3.37%

In 2022, the environmental performance indicator (KEA) recorded a deviation from the proposed target by 1.32%. The main cause that led to exceeding the target value was the outbreak, in February 2022, of the war in Ukraine. Even if most flights in the EUROCONTROL zone were not affected by the airspace closures following the outbreak of the war in Ukraine, they nevertheless had an important impact, in terms of horizontal flight efficiency, in the states adjacent to the conflict zone, including in Romania.

The distance travelled is also the result of air operators' preference to cross geopolitically safe and stable areas and from the perspective of each company and planning procedures, even if this means flying longer than environmentally optimal trajectories.

To reduce the impact on the environment, Romania continued the implementation of Free Route Airspace. Thus, on November 7, 2019, the 24-hour FRA operations were extended at the level of the EEA Fra initiative between Romania, Bulgaria and Hungary. Starting from January 28, 2021, the EEA FRA area was expanded by including Slovakia and from February 24, 2022, the second extension of the EEA FRA area was implemented, by including the Republic of Moldova. Thus, SEE FRA becomes one of the largest blocks of airspace in Europe in which operations are implemented on free cross-border routes.

Apart from the SEE FRA extension, cross-border operations between the SEE FRA and the BALTIC FRA have been implemented, which makes the airspace stretching from the Black Sea to the Baltic Sea open for operations on free routes.

The new flight planning rules optimize flight paths, not only by using the shortest connections but also by allowing the most efficient routings when impact on flights is unavoidable, for example to avoid bad weather.

In conclusion, ROMATSA has taken all the measures that are in its area of responsibility for this area of performance, and the deviation of the indicator from the target is not caused by the provision of air navigation services, but by exogenous factors.

Given that ROMATSA has an Environmental Management System (EMS) implemented and certified according to the ISO 14001:2015 standard, compared to the indicator described above (KEA), 17 more indicators that contribute directly or indirectly are monitored within the SMM to the calculation of the Carbon Footprint generated by ROMATSA's current activities. From the estimated calculation of the carbon footprint in recent years, a downward trend was observed, which led to a decrease in CO2 emissions generated by ROMATSA's activities, thus demonstrating the increase in the Environmental Performance.

The process of formal consultation of airspace users

The quality and environment experts, according to internal procedures, lead, coordinate and analyze the activity of monitoring the level of satisfaction of the External Clients of RA ROMATSA from the point of view of the quality of the services provided by the management.

Monitoring of the level of satisfaction and consultation regarding the ANS and ATFM services provided is carried out annually, using at least one of the following methods:

- work meetings with ROMATSA's external clients (airline companies, aircraft pilots, airports, international bodies);
- completion of questionnaires for monitoring the level of satisfaction by external customers;
- other methods (interviews, events, etc.), whenever deemed necessary;
- annual bilateral consultations with IATA on fare issues;
- multilateral consultations with EUROCONTROL, IATA, IACA, ERA, ELFAA, IAOPA on tariff issues;
- consultations regarding the Danube FAB.

The data resulting from the activity of monitoring the degree of satisfaction of external customers are collected and centralized as follows:

At the level of RA ROMATSA - Central Administration:

- the collection and centralization of the data resulting from the meetings, after completing the questionnaires, is done by the quality and environment specialists;
- the collection and centralization of the questionnaires received by mail, fax, e-mail from the airlines, is done by the registry, the Organization and Relations Service and they are later sent to ROMATSA specialists;
- when the questionnaires are completed online, they are directed to the head of SCM;
- the collection and centralization of questionnaires in the field of Aeronautical Meteorology is done at the subunit level, by the head of the weather department who prepares a centralizing table of completed questionnaires and the Monitoring Report. These are sent to the MIM specialists from the Central Administration, who later send a copy to the quality and environment experts;
- the collection and centralization of questionnaires regarding the provision of AIS by RA ROMATSA in the field of Aeronautical Information is done by the specialists in the field who send a copy of these questionnaires and the Monitoring Report to the quality and environment experts.

At the subunit level:

- the collection and centralization of questionnaires at subunit level is done by the Local Quality and Environment Coordinator and the subunit director;
- the collection and centralization of questionnaires in the field of Aeronautical Meteorology is done by each head of office/weather station in each subunit who draws up a centralizing table of the completed questionnaires, which together with the Monitoring Report are sent to the MIM specialists and later to the quality and environment experts;
- the collection and centralization of the External Customer Satisfaction questionnaires is done to each head of ARO/Briefing unit who sends them to the Local Quality and Environment Coordinator and he sends a copy of the collected questionnaires to the quality and environment experts from the Central Administration.

The evaluation of the degree of satisfaction of external customers, according to internal procedures, is carried out as follows:

For RA ROMATSA - Central Administration - The evaluation of the degree of satisfaction is carried out following the analysis of the questionnaires distributed to external customers at meetings, on the Internet or by mail/fax, by quality and environment experts and is presented within the Management Analysis.

For the field of Aeronautical Information - The monitoring report resulting from the analysis of the questionnaires regarding the provision of AIS by RA ROMATSA, is drawn up by the AIM specialists from the Central Administration and sent annually, in copy, to the quality and environment experts.

Also, they are analyzed with a view to inclusion in the Management Analysis carried out at RA ROMATSA - Central Administration level.

For subunits – The evaluation of the degree of satisfaction is carried out following the analysis of the questionnaires collected at the subunit level, which is presented in the Analysis Performed by the Management at the local level. Also, the questionnaires collected at the local level are sent in copies to the quality and environment experts.

For the field of Aeronautical Meteorology – The monitoring reports resulting from the analysis of the questionnaires distributed at the level of the air operators' subunits, are drawn up by the Head of the office/meteorological station and are sent annually, in copies, to the MIM specialists and, subsequently, to the quality and environment experts.

Also, they are analyzed with a view to inclusion in the Management Analysis carried out at RA ROMATSA - Central Administration level.

The corrections and/or corrective actions, including the improvement proposals resulting from the analyzes of the Monitoring Reports regarding the

level of satisfaction of external customers are approved by the safety and quality director and constitute input elements for the Management Analysis at the directorate level.

As part of the Management Analysis carried out at the directorate level, the data collected with the help of external customer satisfaction monitoring questionnaires were analyzed and the following conclusion resulted:

- External clients appreciated the quality of services provided by RA ROMATSA as very good.

The perception of external customers is considered as an important element for improving the services provided by RA ROMATSA. In this sense, the improvement proposals collected from external customers were analyzed and, as appropriate, measures were established for their implementation.

Danube FAB PROJECT

General framework

Danube FAB represents the functional airspace block established by the "Agreement between Romania and the Republic of Bulgaria regarding the establishment of the Danube FAB Functional Airspace Block" (Danube FAB Agreement), signed in Bruxelles on December 12, 2011 and ratified by Law no. 192/2012, published by in the Official Gazette of Romania, Part I, no. 741 of November 2, 2012.

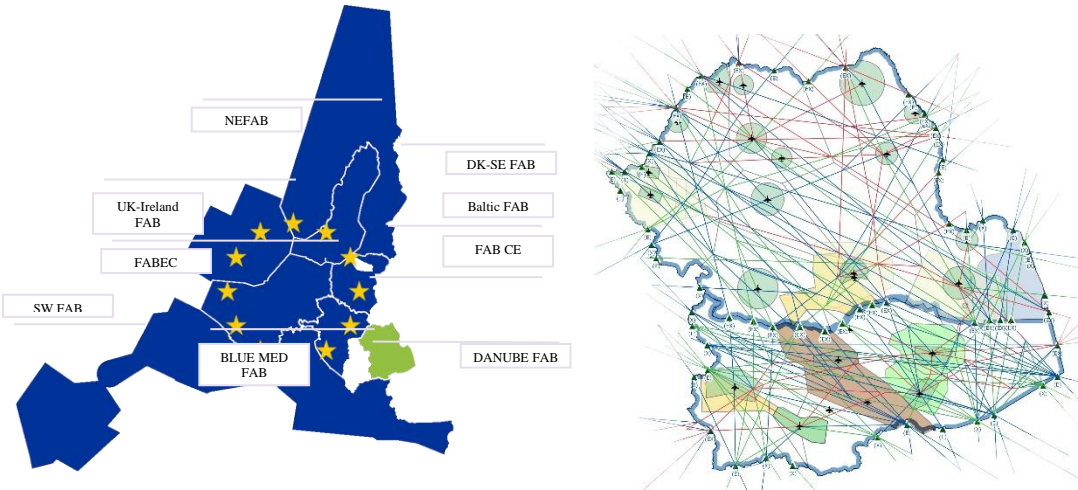


Figure 1- Danube FAB

Subsequent to the Danube FAB Agreement, the Cooperation Agreement between the two National Supervisory Authorities and the Cooperation Agreement between the two Air Navigation Service Providers, ROMATSA and BULATSA, were signed.

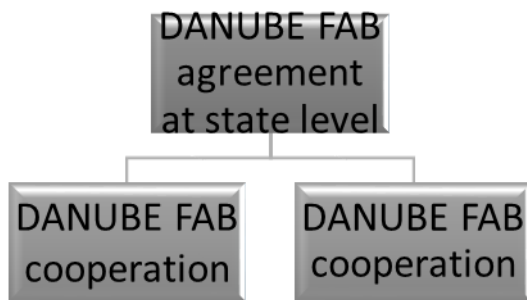


Figure 2- Structure of the main Danube FAB regulatory framework

The entry into force of this document led to the establishment of the governing bodies of the Danube FAB, as follows: the Governing Council, the Committee of National Supervisory Authorities (NSA Board) and the Committee of Air Navigation Service Providers (ANSP Board).



Figure 3- DANUBE FAB organizational structure

At the same time, in accordance with the provisions of the Danube FAB Agreement, in order to fulfill its duties, the Committee of Air Navigation Service Providers established the Standing Committee for Strategies and Planning (SAPSC) which, in turn, established two other standing support committees: Committee permanent operational committee (OSC) and the permanent committee for safety, environmental quality and security (SQSESC).



Figure 4– Support bodies created at the ANSP Board level

More information and documents are available at www.danubefab.eu, including the meetings and documents mentioned below.

Governance structures Danube FAB

In 2022, two meetings of the Danube FAB Governing Council took place, on April 14 and on December 16, respectively.

Also, during the year 2022, two meetings of the Air Navigation Service Providers Committee (ANSP Board) took place, as follows: on April 13 and on December 9.

Strategic planning

In 2022, the documents "Danube FAB Strategic Program for the period 2022-2026", "Danube FAB Annual Plan for 2022" and "Danube FAB Annual Report for 2022" were finalized and adopted, documents made in accordance with the provisions of the Danube FAB Agreement.

Also, the documents "Danube FAB Strategic Program for the period 2023-2027" and "Danube FAB Annual Plan for 2023" were initiated.

Consultation with the social partners

The consultation process with the social partners within the Danube FAB is ensured by organizing, on a regular basis, the Social Consultation Forum (SCF), in accordance with the provisions of the Cooperation Agreement signed at the level of ROMATSA and BULATSA.

In 2022, an SCF meeting was held on May 18. On this occasion, the representatives of trade unions and professional organizations were presented with the status of the main operational projects implemented or being implemented within the Danube FAB, other priority projects, as well as legislative developments at European level with an impact on air navigation service providers .

Priority activities:

- Free Routes Airspace (FRA)

Starting from February 24, 2022, the airspace of the Republic of Moldova was included in the SEE FRA project (South East Europe Free Route Airspace, successfully implemented on November 7, 2019). This represents the second expansion of the project, thus making possible operations on free cross-border routes - free route cross border H24/7, in the airspace of the 5 states. Thus, SEE FRA becomes one of the largest blocks of airspace in Europe in which operations are implemented on free cross-border routes.

In addition to the extension of the EEA FRA, cross-border operations between the EEA FRA and the BALTIC FRA have been implemented, which makes the airspace stretching from the Black Sea to the Baltic Sea open for operations on free routes.

- InterFAB coordination

Within the InterFAB coordination platform, Danube FAB was actively involved by participating in thematic meetings and workshops. Also, Danube FAB hosted, between September 15-16, 2022 in Sofia, an InterFAB workshop with the theme "Resilience in ATM", an event organized in collaboration with FABEC and the German Aviation Research Society (GARS). The event was attended by over 100 high-level representatives and experts from industry and academia from Europe and America.

- Danube FAB extension

In the year 2021/2, the two observers within the Danube FAB (the Republic of Moldova and the Republic of North Macedonia) were encouraged to investigate at the national level opportunities to expand the collaboration with the Danube FAB.

INTERNAL AUDIT

In 2022, a number of 7 internal audit **missions were planned, of which, 6 assurance (4 regularity , 1 system , 1 performance) and 1 counseling .**

Regarding the approach of the fields, the situation is as follows:

Within the 6 assurance missions, specific fields/functions of the entity were addressed (human resources, operational-aeronautical information, technical, decision-making system, management, implementation of measures/recommendations formulated on the occasion of various internal/external controls/audits).

In ROMATSA, in 2022, a number of **6 assurance missions were carried out**. Considering the fact that several areas can be addressed during an assurance mission, it was found that in:

- **0** assurance missions were approached in the budgetary field;
- **0** insurance missions were approached in the financial-accounting field;
- **0** assurance missions were approached in the field of public procurement;
- **1** assurance mission was approached in the field of human resources;
- **0** assurance missions were approached in the IT field;
- **0** assurance missions were approached in the legal field;
- **0** assurance missions were approached in the field of community funds;
- **2** assurance missions addressed the field of entity-specific functions;
- **0** assurance missions addressed the SCIM field;
- **3** assurance missions were addressed in other areas.

Specifically, the internal audit missions/actions carried out in 2022 were:

- *the internal audit mission with the theme "Evaluation of the self-assessment and reporting process of the Managerial Internal Control System implemented at the RA ROMATSA level"*
The structure subject to counseling was the RA ROMATSA Commission for monitoring, coordination and methodological guidance of the implementation of the Managerial Internal Control System (referred to in this report as the Commission).
The period referred to by the council concerned the activity carried out by the Commission in 2021.
The purpose of the advisory mission is to give assurance to the general director of RA ROMATSA that the self-assessment activity of SCIM on 31.12.2021 respects the normative framework and the objectives assumed by RA ROMATSA through the SCIM Development Program for the year 2021 are fulfilled, by granting of formalized advice to the Commission.
Objectives of the advisory mission:
 - facilitating understanding for in-depth knowledge of how to complete the self-assessment questionnaire;
 - identifying obstacles encountered in the SCIM reporting process.
- *the internal audit mission with the theme "Evaluation of the aeronautical information activity carried out by RA ROMATSA"*

The internal audit mission was carried out at the level of the Aeronautical Information Management Department, being a mission planned both in the "Multiannual Internal Audit Plan 2022-2024" and in the "Annual Internal Audit Plan for 2022". The audited period included the 2019-2021 interval.

The purpose of the regularity mission is to give assurance to the general director of RA ROMATSA that the aeronautical information activity observes the normative framework and the objectives assumed by RA ROMATSA are fulfilled.

Objectives of the internal audit mission:

- analysis of the organization modality of the functional structure responsible for carrying out activities specific to aeronautical information;
 - evaluation of the way of carrying out the activities in order to achieve the specific objectives of the AIM;
 - evaluation of the managerial internal control subsystem.
- *the internal audit mission with the theme "Harmonization and compliance of the development of RA ROMATSA programs with the concepts, strategies and plans assumed by RA ROMATSA in a national and international context in compliance with the legal norms, the EC regulations, as well as the aeronautical regulations specific to air navigation services"*

The internal audit mission was carried out at the level of the Program Coordination Service (nb - hereinafter referred to as SCP), being a mission planned both in the "Multiannual Internal Audit Plan 2022-2024" and in the "Annual Internal Audit Plan for 2022" . The audited period included the 2019-2021 interval.

As part of the internal audit mission, a series of documents and information were also requested/evaluated from other specialized structures, namely the Single European Sky Service (SES) and the Danube FAB Service.

The purpose of the regularity mission is to give assurance to the general director of RA ROMATSA that the specific activity carried out by SCP regarding the mission theme, observes the normative framework and the objectives assumed by RA ROMATSA are fulfilled.

The objectives of the internal audit mission consisted in:

- analysis of the way of organizing the functional structure responsible for carrying out specific activities;
 - evaluation of the way of carrying out the activities in order to achieve the specific objectives of the SCP;
 - evaluation of the managerial internal control subsystem.
- *the internal audit mission with the theme "Evaluation of the activities carried out by the executive management. Coordination of subunits at RA ROMATSA level"*

The internal audit mission was carried out based on the "Annual Internal Audit Plan for 2022", with the aim of assuring the General Director on the effectiveness of the managerial act exercised both at the level of the Central Administration and in the relationship between AC - Subunits in order to achieve the objectives assumed by the RA ROMAN. The objectives of the internal audit mission consisted in:

- analysis of the way of establishing and achieving the specific attributions of management functions (AC + Subunits);
 - evaluation of the effectiveness of the managerial act exercised in the AC - Subunits relationship.
- *the internal audit mission with the theme "Ensuring the activities regarding the medical certification of licensed personnel according to the service contracts concluded with the RCAA authorized medical bodies"*

The internal audit mission was carried out at the level of the Human Resources Service, being a mission planned both in the "Multiannual Internal Audit Plan 2022-2024" and in the "Annual Internal Audit Plan for 2022", the evaluation including the structures/persons with responsibilities regarding the scheduling and follow-up of the medical check-up for the license and at the subunit level.

The audited period included the 2019-2021 interval.

Also, as part of the internal audit mission, a series of documents and information were also requested/evaluated from other specialized structures, respectively the sub-units of the directorate.

The purpose of the mission is to give assurance to the general director that the activity regarding the medical certification of licensed staff complies with the normative framework and internal regulations in relations with service providers in this field, and the objectives assumed by RA ROMATSA are fulfilled.

The objective of the internal audit mission consisted in:

- evaluation of the way of fulfilling the responsibilities related to the scheduling and follow-up of the medical check-up for the license.
- *the internal audit mission with the theme "Ensuring documentary support regarding management in the organizational field"*

The internal audit mission was carried out at the level of the Organization and Relations Service (nb - hereinafter referred to as SOR), being a mission planned both in the "Multiannual Internal Audit Plan 2022-2024" and in the "Annual Internal Audit Plan for 2022" , the evaluation including the structures/persons/subunits, for the responsibilities/activities related to ROF AC and sub-unit ROFs.

The audited period covered the period 2019-July 2022.

Also, for a comprehensive picture of the audited field and the respective activities, a series of documents and information from the

management's subunits were evaluated as part of the internal audit mission.

The purpose of the mission was to assure the general director that the activity regarding the development and updating of the Regulation of Organization and Operation of RA ROMATSA observes the normative framework and internal regulations, and the objectives assumed by RA ROMATSA are properly reflected.

The objective of the internal audit mission consisted in:

- analysis of the activities carried out at the SOR level in order to develop and update the Organization and Operation Regulations of RA ROMATSA.

- *the internal audit mission with the theme "Monitoring the implementation of recommendations and measures formulated on the occasion of internal and external audit and control missions"*

The internal audit mission represents the conclusion of an extensive process of monitoring recommendations/measures by internal auditors, started at the beginning of the year.

Thus, in order to achieve the proposed goal and objectives, during the course of the internal audit mission, the internal audit team carried out a regularity audit, proceeding to the in-depth evaluation of the leadership and internal managerial control systems within the functional structures of RA ROMATSA, audited/controlled mainly in the period 2020-2022, with the aim of evaluating the stage/degree/implementation method of the recommendations recorded by the internal auditors in the Internal Audit Reports as a result of the internal audit missions carried out at the structures within the directorate, approved by the directorate's management, during the mentioned period, as well as the stage of implementation of the recommendations/measures ordered by the Court of Accounts, ANAF, the Ministry of Finance, the Ministry of Transport and Infrastructure, under the attention/follow-up of the directorate's management, to determine whether, following the implementation of the recommendations formulated by the internal audit and/or the other control bodies, the activity has improved and they function efficiently, economically and effectively, at the same time giving assurance to the general director of RA ROMATSA on the adequacy of the way of implementation by the specialized structures responsible within the management, of the recommendations/measures ordered through various control documents/reports, thus contributing to the fulfillment of the specific/general objectives of the directorate.

The purpose of the internal audit mission was to give assurance to the general director that the process of following up the implementation of the recommendations and measures formulated during the internal and external audit and control missions is carried out within the established deadlines, and the progress recorded leads to the elimination of the identified deficiencies.

Also, the appropriateness of the way of implementation by the responsible specialized structures within the directorate, of the recommendations/measures ordered by the reports of the internal audit missions carried out by the internal auditors mainly in the period 2020-2022, as well as the recommendations /measures ordered by the Court of Accounts, ANAF, the Ministry of Finance, the Ministry of Transport and Infrastructure, the Control Body of the Prime Minister of Romania, under the attention/monitoring of the management of the government (some even from periods before 2020), thus contributing to the fulfillment the specific/general objectives of the directorate, as well as that of providing the management with an independent assurance that the implementation of the recommendations formulated in the internal audit reports drawn up in the period 2020-2022 and approved by the general director, led to the improvement of the audited activities.

The objectives of the internal audit mission consisted in:

- evaluation of the current state of implementation of the recommendations formulated in previous internal/external audit/control reports;
- analysis of the progress made by implementing the recommendations/measures formulated in the previous internal/external audit/control reports;
- identification of difficulties in the implementation of recommendations/measures and assessment of the opportunity to implement those with overdue deadlines.

During the reported period, no ad hoc missions were carried out.

During the internal audit missions carried out during 2022, no irregularities were found and there were no situations in which the recommendations were not appropriated by the general director of the directorate.

Regarding the follow-up of the implementation of the recommendations, this activity refers to the recommendations formulated by the internal auditors within the previous assurance missions and for which the internal audit structure has the obligation to follow the way of implementation.

In this context, during the year 2022, a number of 96 recommendations were followed up (of which 36 recommendations related to the missions carried out in 2022 and 60 partially implemented/not implemented recommendations related to the missions carried out in the period 2020-2021, monitored in 2022) with the following results:

- 33 implemented recommendations, of which:
 - 10 recommendations implemented within the established term;
 - 23 recommendations implemented after the set deadline.
- 34 partially implemented recommendations (in progress of implementation), of which:

- 13 recommendations for which the established implementation deadline was not exceeded;
 - 21 recommendations with an overdue implementation deadline.
- 29 unimplemented recommendations, of which:
 - 13 recommendations for which the established implementation deadline was not exceeded;
 - 16 recommendations with an overdue implementation deadline.

domain	Number of recommendations implemented		Number of partially implemented recommendations		Number of unimplemented recommendations	
	within the set deadline	after the set deadline	for which the established implementation deadline has not been exceeded	with the implementation deadline exceeded	for which the established implementation deadline has not been exceeded	with the implementation deadline exceeded
Budgetary	0	0	0	0	0	0
Financial Accountant	1	3	0	0	4	2
Public procurement	0	0	0	0	0	0
HR	2	4	6	2	0	4
Information technology	2	0	0	3	0	0
Legal	0	2	0	1	0	2
Community funds	0	0	0	0	0	0
Entity-specific functions	2	7	7	5	6	1
SCM/SCIM	0	0	0	5	0	5
Other domains	3	7	0	5	3	2
TOTAL 1	10	2.3	13	21	13	16
TOTAL 2	33		34		29	

Carrying out advisory missions

At the level of the Internal Audit Department within RA ROMATSA, in 2022, 1 (one) formalized counseling mission was carried out, its objectives consisting of:

- Facilitating understanding for in-depth knowledge of how to complete the self-assessment questionnaire;
- Identifying obstacles encountered in the SCIM reporting process.

The objectivity of the internal auditors within RA ROMATSA

Regarding the involvement of internal auditors in the exercise of auditable activities, during the year 2022, the Internal Audit Department was not involved in activities that, subsequently, it can audit.

Completing the declaration of independence

At the level of the Internal Audit Department - RA ROMATSA, for all internal audit missions carried out in 2022, the internal auditors and the supervisor completed declarations of independence.

Issuing own rules/norms

In the course of 2022, CAI's activity within the framework of the directorate was carried out based on the OMT no. 1.380/03.11.2016 for the approval of the Specific Norms regarding the exercise of internal audit activity within the Audit Service of the Ministry of Transport and Infrastructure.

Issuance of written procedures specific to the internal audit activity

At the level of the Internal Audit Department, the specific activities carried out by the internal auditors were analyzed, a total number of 12 activities were identified. Of these, it was established that a number of 12 activities are procedural, which represents 100%.

Ensuring and improving the quality of the internal audit activity

Elaboration and updating of the "Quality Assurance and Improvement Program (PAIC) of the internal audit activity.

In accordance with the provisions of point 2.3.7. from the annex no. 1 to GD no. 1086/2013, at the level of the internal public audit structure, a quality assurance and improvement program (PAIC) is being developed, under all aspects of the internal audit, which will allow a continuous control of its effectiveness.

The internal audit activity quality assurance and improvement program must guarantee that the internal audit activity is carried out in accordance with the rules, instructions and the Code regarding the ethical conduct of the internal auditor and contribute to improving the activity of the internal public audit structure.

A PAIC should help to express some conclusions regarding the quality of the internal audit activity and lead to making recommendations for the implementation of appropriate improvements to this activity. This program should allow an assessment of:

- compliance with the legal basis in force;
- the contribution of the internal audit to the processes of governance, risk management and control of the organization;
- full coverage of the auditable sphere;

- compliance with the laws, regulations and procedures applicable to the internal audit activity;
- the risks that affect the functioning of the internal audit.

PAIC should impose a systematic and disciplined approach to the periodic self-evaluation process, including the method of performing periodic self-evaluations for each intermediate year between external evaluations.

A fully functional PIAC exercises a permanent monitoring of the internal audit activity and a periodic self-assessment of it to ensure compliance with the applicable legal and procedural framework.

With this process, the external review should effectively become an opportunity to get new ideas from the reviewer or review team about ways to improve the overall internal audit quality, efficiency, and effectiveness.

In 2022, the "Program for ensuring and improving the quality of internal audit activity" was updated and approved by the general director of RA ROMATSA.

Carrying out the external evaluation

Complementary to PAIC, the quality of the internal audit function can be improved through external evaluations. These evaluations are usually carried out every five years, according to the requirements of national legislation as well as international internal audit standards issued by the Institute of Internal Auditors (IIA). The objective of the external evaluation is to evaluate the internal audit activity from the point of view of compliance with the definition of internal audit, with the requirements of the code of ethics and with the provisions of the national legislation in the field.

External evaluations also focus on identifying opportunities to improve the internal audit function, providing suggestions to improve the effectiveness of this activity and promoting ideas to enhance the image and credibility of the internal audit function.

The last evaluation of the activity of the Internal Audit Department within RA ROMATSA, by the Court of Accounts /Auditors of Romania, was in 2020, as a result of the follow-up mission carried out to verify the implementation of the recommendations ordered by Letter no. 40554/10.06.2019. "The performance of the specific activity carried out by the Autonomous Directorate of the Romanian Air Traffic Services Administration - ROMATSA in the period September 2018-March 2019, following which the Audit Report was drawn up. The recommendation regarding CAI's activity, formulated in Chap. V. The evaluation of the internal managerial control system and the internal audit: "The inclusion in the scope of the internal audit of all activities carried out at the level of the management subunits", is recorded in the Follow-up Report; following the justifications presented to the auditors of the Court of Accounts/Auditors, this recommendation was assessed as implemented.

At the same time, the internal audit activity was evaluated and the results were recorded in the Control Report drawn up on the occasion of the action "Control of the situation, evolution and manner of administration of the public and private patrimony of the state, as well as the legality of the realization of

revenues and the execution of expenses ” carried out by the Court of Accounts/Auditors – Department III, pursuant to the provisions of Law no. 94/1992 regarding the organization and operation of the Court of Accounts/Auditors, republished, at RA ROMATSA, in the period 01.02.2021-26.03.2021, registered at RA ROMATSA, at Cap. IV Evaluation of the internal control activity and no negative aspects were recorded.

Other activities of the internal audit

Within the legally permitted framework, the internal auditors carried out in 2022 a series of actions that led to a more correct understanding on the part of the audited specialized structures, of specific responsibilities, but also to their improvement, including through the proposed solutions.

Also, the internal auditors carried out other actions, in the following ways:

- monitoring the implementation of recommendations/control measures formulated on the occasion of internal/external audits/controls carried out at the RA ROMATSA level;
- participating, as a guest, in the Meetings of the Commission for monitoring, coordination and methodological guidance of the implementation and development of the internal managerial control system, on which occasion, for each of the subjects included in the agenda, when appropriate, he contributed to analyzing the problems under discussion and finding optimal treatment solutions;
- specific counseling related to the implementation and development of the Management Internal Control System;
- specific counseling related to the implementation activities of the National Anti-Corruption Strategy 2021 – 2025;
- advisory actions on specific topics, embodied in the following documents:
 - support/advice in identifying risks related to management and support activities/processes, whenever the Internal Audit Department has been requested;
 - support/advice in the self-assessment activity of the implementation stage of internal/managerial control standards;
 - in all the cases when they were consulted, the internal auditors presented to the third parties, persons from the directorate, solutions or information in the application of the legal provisions, to the specific conditions of the directorate.

From the CAI's point of view, it is constantly trying to, through the quality of the activities and the recommendations formulated, make a contribution that will be appreciated by all the participating actors, for the smooth running of the directorate's activities.

Proposals regarding the improvement of the internal audit activity carried out at the RA ROMATSA level

- the updating of some provisions from the internal documents of the directorate regarding the internal audit activity (Program for ensuring and improving the quality of the internal audit activity), taking into account the changes brought by GD no. 1086/2013 for the approval of the General Norms regarding the exercise of the internal public audit activity, taken over in the Specific Norms regarding the exercise of the internal audit activity within the MTI, approved by the OMT no. 1380/03.11.2016;
- expanding the auditable scope as well as the mandatory auditable activities, according to the regulations in force, including the activities carried out at the level of RA ROMATSA subunits;
- participation in courses and seminars that address, in particular, internal audit missions aimed at performance audit, fraud, corruption but also other related aspects, namely communication, PR, etc.;
- participation in periodic work meetings with the internal auditors from the units subordinated, coordinated or under authority, organized by the Internal Audit Service within MTI.

The strengths of the internal audit function

- CAI considers that the specific activity is carried out in accordance with the provisions of the internal audit regulations regarding the application of the methodology for carrying out internal audit missions, in order to improve the audited activities;
- the experience in the internal audit activity of the staff is an asset in favour of another strong point of this function;
- contribute to the evaluation, identification of obstacles to the normal development of processes, establishing the causes of their appearance, determining the consequences of their existence and proposing recommendations/solutions for the elimination of obstacles in order to improve the administration of governance, risk management and internal control.

We believe that the organizational structure - the Internal Audit Department - at the RA ROMATSA level, is perceived correctly and benefits from the support of the director's management and appreciation of the work done.

THE EVOLUTION OF PERFORMANCE INDICATORS IN THE YEAR 2022

1) Evolution of performance indicators according to the requirements of Regulation (EU) no. 317/2019

At the level of 2022, the evolution of the performance indicators established for ROMATSA through the Performance Plan of Romania for the period 2020-2024 is presented as follows:

1.1. Key performance area regarding safety

For the key performance area regarding safety, the target values established by the Performance Plan for safety policy and objectives, safety assurance and safety promotion were observed. In terms of safety risk management and safety culture, the targets were exceeded.

	2022A	2022
	Current	Target
Safety policy and objectives	C	C
Safety risk management	D	C
Safety assurance	C	C
Safety promotion	C	C
Safety culture	D	C

1.2. Key performance area regarding the environment

Within the key environmental domain, the key performance indicator is the average level flight efficiency corresponding to the effective trajectory.

Romania	Target 2022	Accomplished
KEA	2.05%	3.36%

According to the operational analysis, despite the significant reduction in traffic, the areas avoided by air operators were mentioned (Black Sea, Eastern Ukraine, Crimea area), as well as related restrictions (RAD) and applicable traffic bans (between Ukraine and Russia) in the area.

All of the above continued to keep the distance travelled artificially increased, even for a smaller number of flights, with visible effects on the KEA indicator. This fact proves once again that the KEA calculation methodology should be revised to eliminate the influence of external factors, beyond ROMATSA's control.

The distance covered is also the result of airline operators' preference to cross geopolitically safe and stable areas and from the perspective of each company and planning procedures, even if this means using longer than environmentally optimal trajectories.

Conflicts or uncertain situations in the Middle East (e.g. Syria)/Ukraine may cause airline operators to bypass these areas and, as a result, already travel

longer/atypical distances and trajectories even before entering the Romanian airspace.

To reduce the impact on the environment, Romania continued the implementation of Free Route Airspace. Thus, on November 7, 2019, FRA operations were extended in H24 regime at the level of the EEA FRA initiative between Romania, Bulgaria and Hungary, to which Slovakia was added, starting from January 28, 2021, and from February 2022, the Republic of Moldova, cross-border operations between the Baltic FRA and the SEE FRA being implemented at the same time. Since February this year, the SEE FRA includes the airspace of the Czech Republic. In conclusion, ROMATSA has taken all the measures that are in its area of responsibility for this area of performance and the non-fulfillment of the indicator is not caused by air navigation services but by exogenous factors.

1.3. Key performance area regarding capability

ROMATSA achieved 0 minutes of ATFM delays for en route air navigation services and 0.01 minutes of ATFM delays for regulated terminal services at Bucharest Otopeni and Băneasa airports.

We note that the targets for the year 2022 were 0.04 minutes ATFM delay for en route air navigation services, 0 minutes ATFM landing delay for Bucharest Băneasa airport and 0.40 minutes ATFM landing delay for Bucharest Otopeni airport.

Traffic values increased as a result of the lifting of restrictions previously imposed by the COVID-19 pandemic and due to the redirections caused by Russia's war of aggression in Ukraine. On average, the distance/flight increased compared to 2019, as evidenced by the evolution of service units, but the total number of movements remained below pre-pandemic levels (656,000 in 2022 compared to 747,000 in 2019).

1.4. Key performance area regarding cost efficiency

For route air navigation services, the real determined unit cost recorded in 2022 was 2.1% lower than the determined one, calculated in 2017 lei. In nominal terms, personnel costs registered an increase compared to the determined level, as due to the effect of inflation, the dynamics of personnel for the recruitment of new air traffic controllers to ensure the replacement of those over 55 years old, and especially by increasing the costs recorded for pensions.

For regulated terminal air navigation services, the actual determined unit cost recorded in 2022 was 12% higher than the determined one, calculated in 2017 lei, as a result of the failure to achieve the traffic forecast and the impact of inflation. In nominal terms, the total costs were 9% higher than the

determined ones. The overrun is determined, similar to the route air navigation services, by the increase in total staff costs by 3,420 thousand lei, of which 2,805 thousand lei represents the overrun of pension costs, but also as a result of the increase from the category of other operating costs through the registration of the receivables for uncertain customers, especially BlueAir which entered insolvency in 2022.

The following tables present the costs related to the route activity, respectively the regulated terminal, recorded at the level of 2022, broken down by type of costs in relation to the costs determined according to the revised Performance Plan for the third reference period (2020-2024).

Cost category	Determined (`000 lei)	Current (`000 lei)	Difference (value) (`000 lei)	The difference (%)
Personnel	759,789	812,122	52,333	7%
of which pensions	79,611	111,668	32,057	40%
Other operating costs	101,887	89,504	-12,383	-12%
Amortization	45,640	45,832	192	0%
Cost of the capital	37,939	38,099	160	0%
Exceptional costs	0	0	0	
Total costs	945,254	985,558	40,303	4%

Table 1- Evolution of route air navigation service costs in 2022, in nominal terms

Cost category	Determined (`000 lei)	Current (`000 lei)	Difference (value) (`000 lei)	The difference (%)
Personnel	78,897	82,317	3,420	4%
of which pensions	7,455	10,260	2,805	38%
Other operating costs	10,630	15,701	5,072	48%
Amortization	3,965	3,929	-36	-1%
Cost of capital	3,110	2,946	-164	-5%
Exceptional costs	0	0	0	
Total costs	96,601	104,893	8,292	9%

Table 2 – Cost evolution of regulated terminal air navigation services in 2022, in nominal terms.

2) The process of formal consultation of airspace users

Multilateral consultations are organized twice a year, at the level of all EUROCONTROL member states, within the extended Committee for EUROCONTROL route tariffs. Detailed information on the evolution of costs and traffic as well as the application of risk-sharing mechanisms on traffic and costs are made available to user representatives, EUROCONTROL and the European Commission at the deadlines and in accordance with the reporting tables and additional information set out in the Regulation on the common tariff scheme as well as in EUROCONTROL procedures and documents.

In 2022, the following consultation sessions took place:

- June 22-23, during the 1168th session of the Enlarged Committee for Route Tariffs EUROCONTROL, multilateral consultations were held on the initial estimates regarding the cost bases and unit route tariffs for the year 2023 and the reporting of the cost bases for the year 2021;
- November 21-22 - multilateral consultations were held on the final estimates regarding the cost bases and route unitary tariffs for the year 2023 during the 119th session of the Enlarged Committee for EUROCONTROL Route Tariffs.

Regarding the costs of 2022, in accordance with the provisions of the European regulations (Implementation Regulation (EU) 2019/317 of the Commission of 11 February 2019 establishing a performance and charging system within the single European sky) as well as with the national regulations, the member states annually ensure the consultation of the representatives of the airspace users.

Thus, ROMATSA, together with the RCAA, set 31.07.2023 as the date for the respective consultations.

INTERNAL AND INTERNATIONAL COOPERATION

A. Activities in the field of organization

Depending on the needs in the organizational field that appeared at the directorate level, the process of updating the Organization and Operation Regulations of the ROMATSA subunits continued. Throughout the year, the secretariat of the negotiation sessions between the Employers and the ATSR Union was provided, an activity that consists in providing support regarding the elaboration and management of minutes, concluded after each meeting of the two negotiation commissions.

Also, all the activities regarding the negotiation and signing with the social partner of a new Collective Labor Agreement, a document whose objective is to protect the rights of the involved parties and prevent the emergence of collective labor conflicts, were ensured.

B. Activities in the field of relations

Internal and external cooperation

1. the main events/manifestations organized at the initiative of the directorate or attended by the delegated members of the directorate, internally:

- In 2022, RA ROMATSA collaborated with the specialized departments of the Ministry of Transport and Infrastructure, namely the Air Transport Directorate, the Communication Directorate, Relations with Trade Unions, Patronages and Non-Governmental Organizations) with the Romanian Civil Aeronautical Authority, the Tarom Company, the Ministry of National Defense, the General Staff of the Air Force, the Association of Romanian Airports, etc.
- these collaborations resulted in the development and improvement of relations and efforts whose main objective is the harmonization and integration of Romania in the specialized European system (EUROCONTROL, the European Union, etc.) and ensuring, together with Romanian MoD, the coordinated use of Romania's airspace by civil and military aviation.

2. trips abroad to conferences, events, work meetings, etc. in the field of air transport:

In 2022, RA ROMATSA's cooperative relations with international aeronautical organizations from its profile and with air navigation service providers from other European states continued, taking into account the need for regional cooperation and ensuring a lobby at European level in order to ensure an advantageous position of Romania within the future ATM structures, resulting from the application of the Single European Sky concept.

3. objectives achieved or other results in the field

In accordance with the MTI regulations regarding mass media relations and with the approval of the Board of Directors, the management of the directorate paid special attention to the promotion of the image of the directorate and of Romania internally and externally.

ROMATSA did not promote its image through advertising layouts in the mass media.

At the same time, in accordance with the Implementing Regulation (EU) no. 373/2017 establishing common requirements for providers of air traffic management/air navigation services and other functions of the air traffic management network and for their supervision, repealing Regulation (EC) no. 482/2008, of the Implementing Regulations (EU) no. 1034/2011, (EU) no. 1035/2011 and (EU) 2016/1377, as well as amending Regulation (EU) no. 677/2011, in 2022 the 21st edition (both in Romanian and in English) of the ROMATSA Annual Report was published, the content of which makes a profit in the promotion of the image of the directorate by being broadcast, through the directorate website, to relevant domestic and international bodies, airlines, other air traffic service providers, ministries, banks and other operators with whom ROMATSA collaborates.

HUMAN RESOURCES POLICY

The provision of air navigation services in a safe, efficient and continuous manner is supported by the implementation of the best practices for the use of human resources and the integration of the human factor in the operation of the ATM system.

In the spirit of the requirements for the accelerated implementation of the objectives of the Single European Sky in an efficient and effective way and with the aim of maintaining ourselves as one of the most performing providers of air navigation services in terms of safety, efficiency and environmental protection, we use the more advanced systems and technologies and we ensure the continuous professional training and motivation of the staff.

The activities in the field of human resources - complex and extensive as a result of the large number of employees, the changes made in the national legislation on the matter and the specificity of the activity object (which induces additional requirements for personnel in the interest of air navigation safety) were carried out in compliance with the provisions legal and national and international aeronautical regulations.

In 2022, ROMATSA operated with a maximum number of 1,813 positions; 64 people were employed, of which:

- 23 ATC Ab-initio
- 24 PNA (personal air navigation protection);
- 2 MET (aeronautical meteorological personnel);
- 15 PAD (administrative staff).

Also, this year, the employment relationships with the management of 62 employees ended due to retirement at the age limit, early/partially early retirement with the reduction of the standard retirement age for activity carried out in work groups, disability retirement, death or resignation. During October 2022, a new process of recruitment and selection of candidates who will attend an initial training course to obtain the trainee Air Traffic Controller

license (ATC trainee) was started, in order to fill a number of 58 vacant positions of controllers of air traffic Ab-initio/in preparation/in training.

The staff structure of ROMATSA on December 31, 2022 is presented as follows:

- 52% ATCs (air traffic controllers)
- 20% PNA (personal air navigation protection)
- 7% MET (aeronautical meteorological personnel)
- 21% PAD (administrative staff).

Actions carried out in 2022:

- the negotiation with the social partner and the conclusion between the ATSR Union and the RA ROMATSA Trust of the CLA 2022/2023 and the Addendum thereto;
- drawing up the documents in order to conclude the contract regarding the provision of "Evaluation services based on actuarial calculations of the benefits of employees within RA ROMATSA carried out for the financial year ended on 31.12.2022";
- contests were organized for the occupation of MET and PNA positions within DSNAR Arad - Braşov site, for the provision of air navigation services for Braşov Ghimbav International Airport, through the Remote Tower solution;
- preparation and submission of IEB 2023 proposals;
- during the year, 2 employees were seconded transnationally, who carried out activity within the Liaison Office with the EUROCONTROL member states and respectively SDM (SDA AISBL) Belgium, Brussels;
- the updating of existing reports as well as the development of new notifications and reports in the e-Management system, according to the specifications of the subunits;
- the acquisition of occasional internal and external transport services and the conclusion of related framework agreements;
- the organization of evaluation sessions of the degree of achievement of the objectives assumed by the subunit directors, by the directors of the AC, by the employees with management positions under the directors, as well as by the employees under their subordination;
- the necessary actions regarding the control for the revalidation of the medical fitness of ROMATSA staff with the status of non-navigation aeronautical personnel (from air traffic control, technical and meteorological protection of air navigation and aeronautical telecommunications) were planned and monitored, as well as the annual medical health checks for other employees, provided by the law;
- the necessary actions regarding the examination/evaluation by the Romanian Civil Aviation Authority in order to obtain/revalidate the licenses, qualifications and authorizations associated thereto were planned and monitored.

The professional training of the management's employees is a priority direction of action, materialized through the planning, coordination and execution of a complex training program.

The professional training plan (PFP) for the year 2022 was the subject of negotiation with the social partner, so that, through an Addendum, the PFP became an annex to the Agreement concluded between the union and the employer.

Through this plan, a number of 2,805 participations in various forms of professional training were considered, the allocated funds being at the level of 17,015,000 lei.

From the point of view of the proposed performance objective (effective participation of min. 50% of the planned number of participations), the objective was met, in the execution a number of 2,565 participations in training programs were registered, representing 91% of the planned.

- 23 Ab-initio ATCs have completed the basic training and preparation for qualification, 22 of them obtaining the trainee ATC license, currently undergoing training at the ACC Bucharest traffic unit level;
- 24 ATSEP employees completed the "ATSEP Basic Training" basic training, in the first part of 2022 moving on to the preparation phases for planning;
- 5 employees selected following external competitions completed the basic training in order to obtain the MET Trainee license; currently, he is preparing to obtain the MAT gr. license. II;
- 41 employees completed training courses for the implementation of the AIS Computerized Integrated System;
- 109 participations in specialization/improvement courses organized by EUROCONTROL Aviation Learning Center (Luxembourg);
- the refresher courses necessary to revalidate the licenses and authorizations associated with them were conducted. Carrying out these courses allowed the licensing process to proceed without a hitch;
- the necessary courses for the authorization of ROMATSA personnel for Braşov-Ghimbav Airport were started;
- depending on the needs, the PAD staff participated in courses specific to the field of activity (economic/legal/human resources/health and safety at work, etc.).

At the management level, the principle of equal opportunities and fair treatment for all employees was applied, thus any form of discrimination, whether direct or indirect, which could be based on criteria of sex, sexual orientation, genetic characteristics, age, nationality, race, ethnicity, religion, political choice, social origin, disabilities, situation or material responsibility, union membership or activity.

All employees enjoyed equal rights and opportunities throughout their employment relationship.

FINANCIAL STATEMENT

FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

Independent Auditor's Report

Opinion

1. We have audited the financial statements of the ROMANIAN ADMINISTRATION OF AIR TRAFFIC SERVICES – R.A. ROMATSA („the Company”) with registered office in 10 Ion Ionescu de la Brad Blvd., District 1, Bucharest, identified by the unique tax registration code RO1589932, which comprise the statement of financial position as at December 31, 2022 and the statement of comprehensive income, the statement of changes in equity and the statement of cash flows for the year then ended, including a summary of significant accounting policies and notes to the financial statements.
2. The financial statements as of December 31, 2022 are indentified as follows:
 - Net assets/Total equity: 462,644,360 lei
 - Net result for the financial year-profit : 72,680,561 lei
3. In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2022, and its financial performance and cash flows for the year then ended in accordance with Ministry of Public Finance Order no. 2844/2016 for the approval of accounting regulations conforming with International Financial Reporting Standards as adopted by the European Union.
4. We conducted our audit in accordance with International Standards on Auditing (ISAs), Regulation (EU) No. 537/2014 of the European Parliament and the Council (forth named „the Regulation”) and Law 162/2017 („the Law”). Our responsibilities under those standards are further described in the „Auditor's Responsibilities for the Audit of the Financial Statements” section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants Code of Ethics for Professional Accountants (IESBA Code), in accordance with ethical requirements revelant for the audit of the financial statements in Romania including the Regulation and the Law and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is suffricient and appropriate to provide a basis for our opinion.

Key Audit Matters

5. Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We considered the following as key audit matters:

KEY AUDIT MATTERS

Provisions for pensions and similar benefits

The Company grants its employees, according to the employment contract, monetary benefits depending on the employee's years of service and upon retirement. Such benefits consist of a variable number of salaries, which vary according to the employee's professional category.

Such provisions amount to RON 570,614,067 at December 31, 2022 and RON 509,619,551 at December 31, 2021, respectively.

Due to the high value of such provisions and the relevance of the professional judgments involved, we consider this to be a key audit matter.

HOW OUR AUDIT ADDRESSED THE KEY AUDIT MATTER

How our audit addressed the key audit matter

- review of the judgments and assumptions applied by management for each category of provisioned benefits;
- inquiries with the representatives of the specialised departments, and external experts that provided assistance in order to understand and confirm management's assumptions in the calculation;
- review of the computation models prepared by the external actuary of the Company and the evaluation of the reasonability of the variables used in the computation;
- assessment of the adequacy of the information disclosed as compared with the historical statistical information;
- understanding of the internal control in place on how the

KEY AUDIT MATTERS

Revenue recognition

The Company records revenues according to the International Convention regarding Cooperation for the Security of Air Navigation which ensures for its member states a system of common taxation of routes (a unique taxation of flights).

EUROCONTROL is the authority that ensures the implementation of this Convention offering all members states computation , billing and collection services through the Central Route Charges Office.

ROMATSA's costs are included in the air navigation services charges that in term determine its revenue, are regulated and are highlighted in a Performance Plan covering a reference period lasting 5 yearsw. Every year, when establishing the final unit rate that will be applied in the following year, the differences recorded between the values established at the beginning of the reference period and those achieved in the previous year are taken into account, these differences leading to the adjustment of the respective unit rate either by increasing or decreasing the applicable unit rate for the following year. The current reference period covers the period between 2020-2024 for which there is currently a Performance Plan approved by the European Commision.

The Company has reviewed the settlements of revenues obtained

HOW OUR AUDIT ADDRESSED THE KEY AUDIT MATTER

employees benefits were determined and granted, including the verification of the clauses of the employment contract;

Our procedures regarding the adjustment of revenues for route activity

- understanding and assessment of the methodology used, specifically its consistent application from one financial year to another;
- understanding of internal controls in place as to the determination of revenues adjustments;
- review of the accuracy and completeness of the revenues recorded for the financial year ended December 31, 2022 (including confirmation procedures for transactions with EUROCONTROL);
- review of the adequacy of diclosures in the notes to the financial statements;
- understanding and review of European Commission implementing Regulation (EU) 2020/1627 on exceptional measures for the third reference period (2020-2024) of the Single European Sky performance and pricing system , applied in the context of the COVID – 19 pandemic.

KEY AUDIT MATTERS

HOW OUR AUDIT ADDRESSED THE KEY AUDIT MATTER

from EUROCONTROL for the route activity and estimated to occur at the end of the settlement cycle. Due to the matters presented above, we consider that the adjustment of revenues for route activity is a key audit matter.

Other information – Administrators Report and Non-Financial Statements

6. The administrators are responsible for the preparation and presentation of other information in accordance with OMFP no. 2844/2016, points 15-19. The Administrators are also responsible for such internal control as they deem necessary to enable the preparation and presentation of the Administrators' Report and the Non-Financial Statement which does not contain material misstatement due to fraud or error.
7. That other information includes the Administrators' Report, which also includes the Non-Financial Statement, but does not include the financial statements and the auditor's report thereon.
8. Our opinion on the financial statements does not cover the other information and, unless otherwise explicitly mentioned in our report, we do not express any form of assurance conclusion thereon.
9. In connection with our audit of the financial statements for the year ended December, 31, 2022, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise, appears to be materially misstated.
10. Regarding the Administrators' Report and the Non-Financial Statement, we have read and report whether they have been prepared, in all material respects, in accordance with the requirement of OMFP no. 2844/2016, points 15-19.

On the sole basis of the procedures performed within the audit of the financial statements, in our opinion:

- a) the information included in the Administrators' Report for the financial year for which the financial statements have been prepared is consistent, in all material respects, with these financial statements;

- b) The Administrators' Report and the Non-Financial Statement were prepared, in all material respects, in accordance with the information provided in points 15-19 of OMFP no. 2844/2016.

Moreover, based on our knowledge and understanding of the Company and its environment, gained during the audit on the financial statements prepared as at December 31, 2022, we are required to report if we have identified a material misstatement in the Administrators' Report. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

11. Management is responsible for the preparation and fair presentation of the financial statements in accordance with Ministry of Public Finance Order no. 2844/2016 for the approval of accounting regulations conforming with International Financial Reporting Standards as adopted by the European Union, as revised, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.
12. In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.
13. Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

14. Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.
15. As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to the fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
 - Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
 - Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
 - Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
 - Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
16. We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
17. We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.
18. From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter

should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

19. We were appointed by the Board of Directors by decision no. 22942 as of 21.12.2021 to audit the financial statements of R.A. ROMATSA for the financial year ended December 31, 2022. The total uninterrupted duration of our commitment is 3 years, covering the financial years ending December 31, 2021 through December 31, 2023.

We confirm that:

- Our audit opinion is consistent with the additional report submitted to the Audit Committee of the Company that we issued the same date we issued this report. Also, in conducting our audit, we have retained our independence from the audited entity.
- We have not provided for the Company the prohibited non-audit services referred to in Article 5(1) of EU Registration no. 537/2014.

TGS Romania Assurance and Advisory Business Services SRL

STATEMENT OF FINANCIAL POSITION FOR THE YEAR ENDED 31 DECEMBER 2022
(all amounts are presented in RON unless otherwise stated)

ASSETS	31 December 2022	31 December 2021
NON-CURRENT ASSETS		
Property, plant and equipment	269,018,112	312,563,243
Intangible assets	105,821,253	70,073,779
Right-of-use of assets	22,988,941	22,516,510
Equity interests in other entities	-	-
Financial investments – non-current	109,293,131	109,091,901
Total non-current assets	<u>507,121,437</u>	<u>514,245,433</u>
Current assets		
Inventories	13,261,058	12,113,681
Trade and other receivables	1,077,720,715	892,532,832
Prepaid expenses	18,259,702	18,680,094
Cash and cash equivalents	205,032,973	15,812,812
Total current assets	<u>1,314,274,448</u>	<u>939,139,419</u>
Total assets	<u>1,821,395,885</u>	<u>1,453,384,852</u>
EQUITY AND LIABILITIES		
Equity attributable to owners of the parent		
Share capital	376,954,042	376,954,042
Legal reserve	41,863,620	37,148,815
Other reserves	<u>33,506,665</u>	<u>22,316,961</u>
Retained earnings	<u>10,320,033</u>	<u>(14,027,647)</u>
Total equity	<u>462,644,360</u>	<u>422,392,171</u>
Non-current liabilities		
Borrowings	399,430,000	319,046,200
Lease liabilities long term	21,097,101	20,933,027
Other long-term liabilities	581,432	134,205
Deferred revenue long term	38,114,758	10,708,651
Employee benefit obligations long term	520,620,720	467,677,150
Total non-current liabilities	<u>979,844,011</u>	<u>818,499,233</u>
Current liabilities		
Borrowings short term	66,570,000	-

Lease liabilities short term	3,358,592	2,995,476*
Trade and other payables	39,343,584	39,323,426*
Other current liabilities	15,718,149	6,633,609*
Employee benefit obligations short term	204,553,011	129,464,306*
Provisions for risks and charges short term	48,312,414	33,516,777*
Deferred revenue short term	1,051,764	559,854
Total current liabilities	<u>378,907,514</u>	<u>212,493,448</u>
Total liabilities	<u>1,358,751,525</u>	<u>1,030,992,681</u>
Total equity and liabilities	<u>1,821,395,885</u>	<u>1,453,384,852</u>

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE FOR THE YEAR ENDED 31 DECEMBER 2022

(all amounts are presented in RON unless otherwise stated)

	31 December 2022	31 December 2021
Turnover	1,349,009,969	995,854,688
Other operating income	5,306,450	6,954,143
Total operating revenues	<u>1,354,316,419</u>	<u>1,002,808,8</u>
Fuel expenses	(541,928)	(334,910)
Consumables, maintenance and repairs expenses	(6,220,089)	(3,867,113)
Personnel costs	(923,398,820)	(771,049,942)*
Depreciation, amortization and impairment	(55,992,470)	(51,625,699)
Other operating expenses	(213,565,763)	(100,234,532)*
Total operating expenses	<u>(1,199,719,070)</u>	<u>(927,112,196)</u>
Operating Profit/Loss	154,597,349	75,696,635
Finance income	5,349,889	6,457,093*
Finance costs	(65,651,129)	(31,851,671)*
Finance costs - net	<u>(60,301,240)</u>	<u>(25,394,578)</u>
Profit/(Loss) before income tax	94,296,109	50,302,057
Income tax expenses	(21,615,548)	-
Profit/(Loss) for the year from continuing operations	72,680,561	50,302,057
Other comprehensive income		
Actuarial gains/(losses) on post-employment defined benefit plan valuation	(32,428,372)	3,380,959
Post-employment defined benefit plan tax deferred	-	-
Other comprehensive income/(loss) for the period, net tax	<u>(32,428,372)</u>	<u>3,380,959</u>
Total comprehensive income/(loss) for the period	40,252,189	53,683,016

* Notes 1 to 33 are an integral part of the individual IFRS Financial Statements

STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 DECEMBRIE 2022

(all amounts are presented in RON unless otherwise stated)

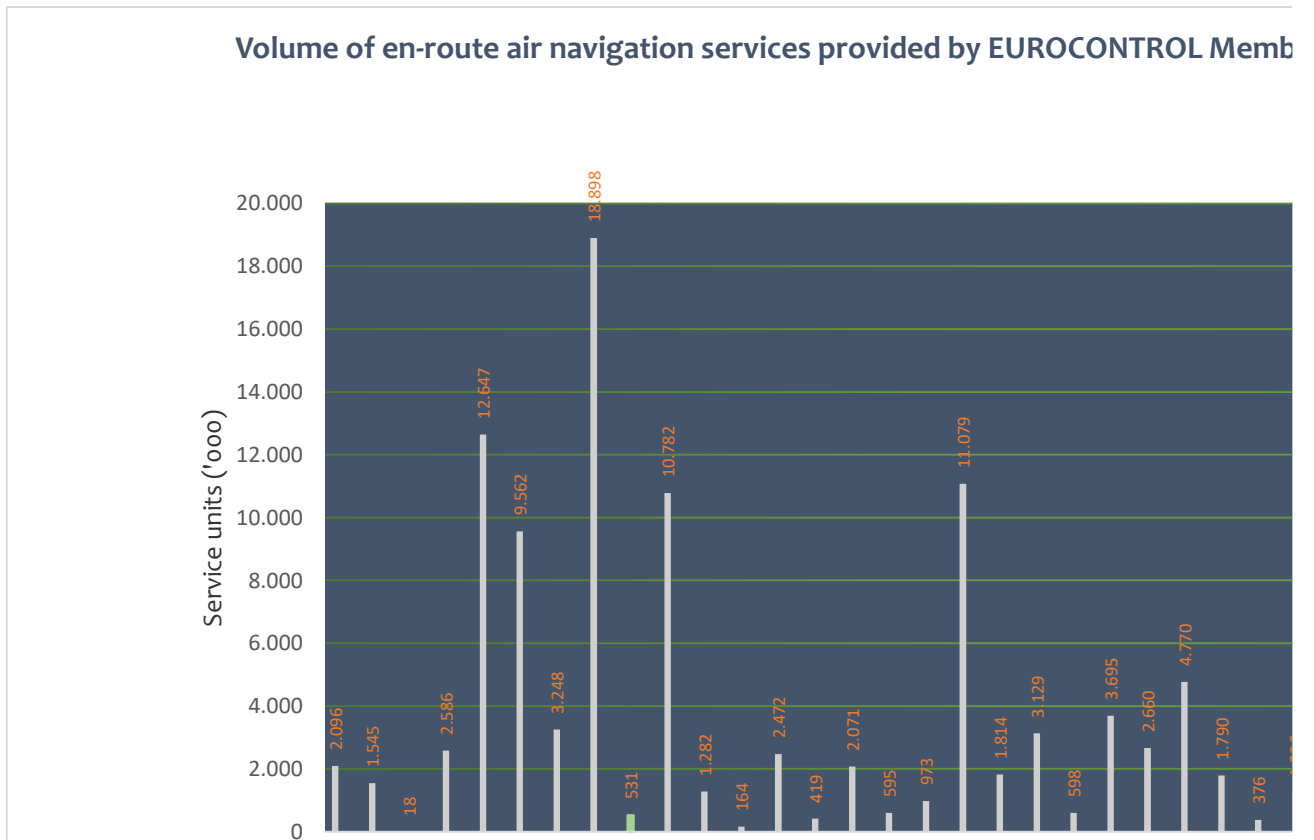
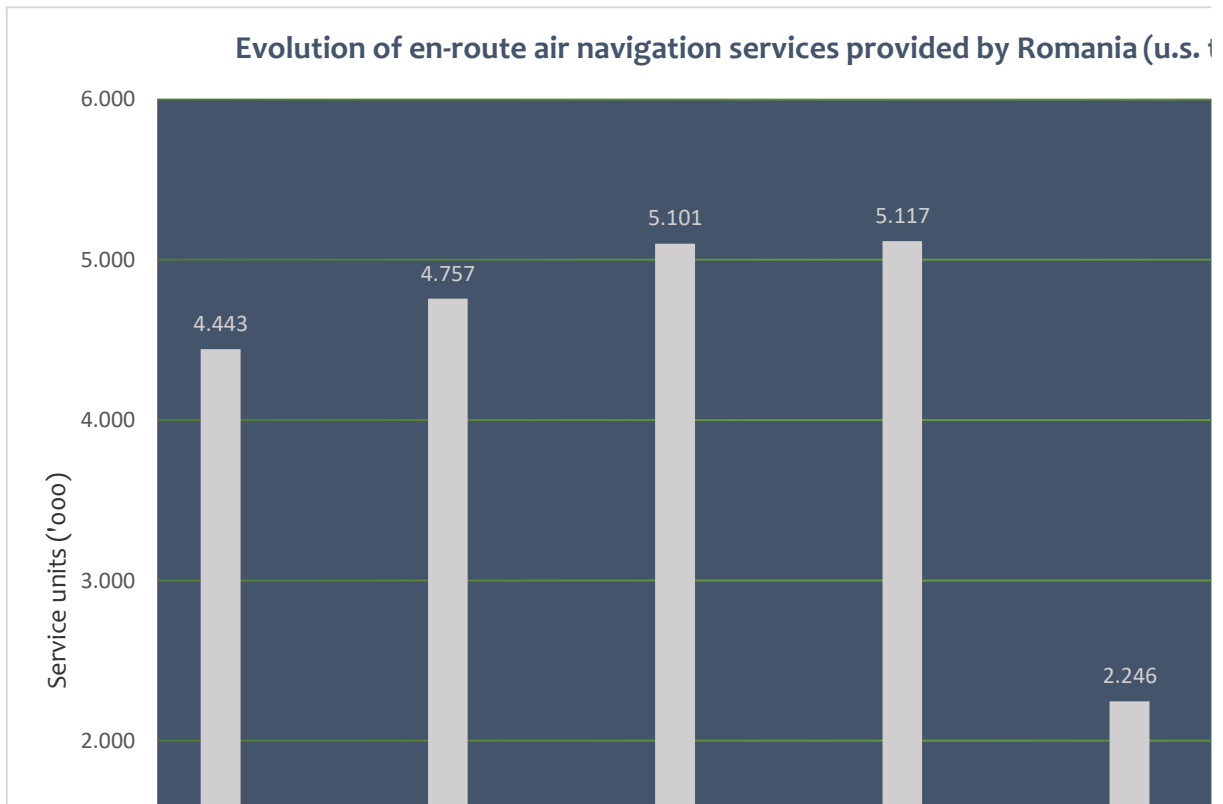
	Patrimony	Legal reserve	Other reserves	Retained earnings	Total
Balance as at 1 January 2021	376,954,042	34,633,712	22,316,961	(65,195,560)	368,709,155
Comprehensive income					
Profit for the year 2021	-	-	-	50,302,057	50,302,057
Other comprehensive income					
Recognition of actuarial gain on defined benefit plan, net of tax	-	-	-	3,380,959	3,380,959
Increase in legal reserve	-	2,515,103	-	(2,515,103)	-
Total comprehensive income for the period	-	2,515,103	-	51,167,913	53,683,016
Balance as at 31 December 2021	376,954,042	37,148,815	22,316,961	(14,027,647)	422,392,171
Balance as at 1 January 2022	376,954,042	37,148,815	22,316,961	(14,027,647)	422,392,171
Comprehensive income					
Profit for the year 2022	-	-	-	72,680,561	72,680,561
Other comprehensive income					
Recognition of actuarial loss on defined benefit plan, net of tax	-	-	-	(32,428,372)	(32,428,372)
Increase in legal reserve	-	4,714,805	-	(4,714,805)	-
Increase in other reserves	-	-	11,189,704	(11,189,704)	-
Total comprehensive income for the period	-	4,714,805	11,189,704	24,347,680	40,252,189
Balance as at 31 December 2022	376,954,042	41,863,620	33,506,665	10,320,033	462,644,360

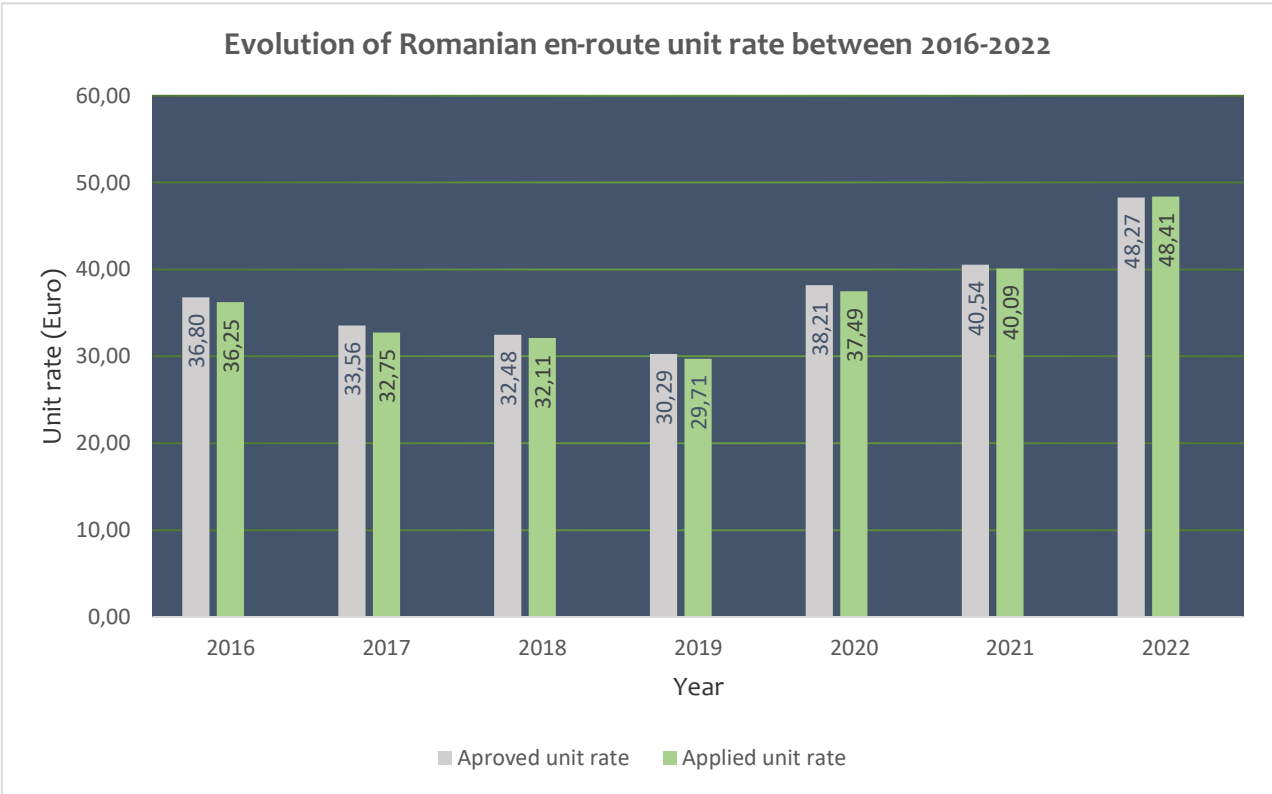
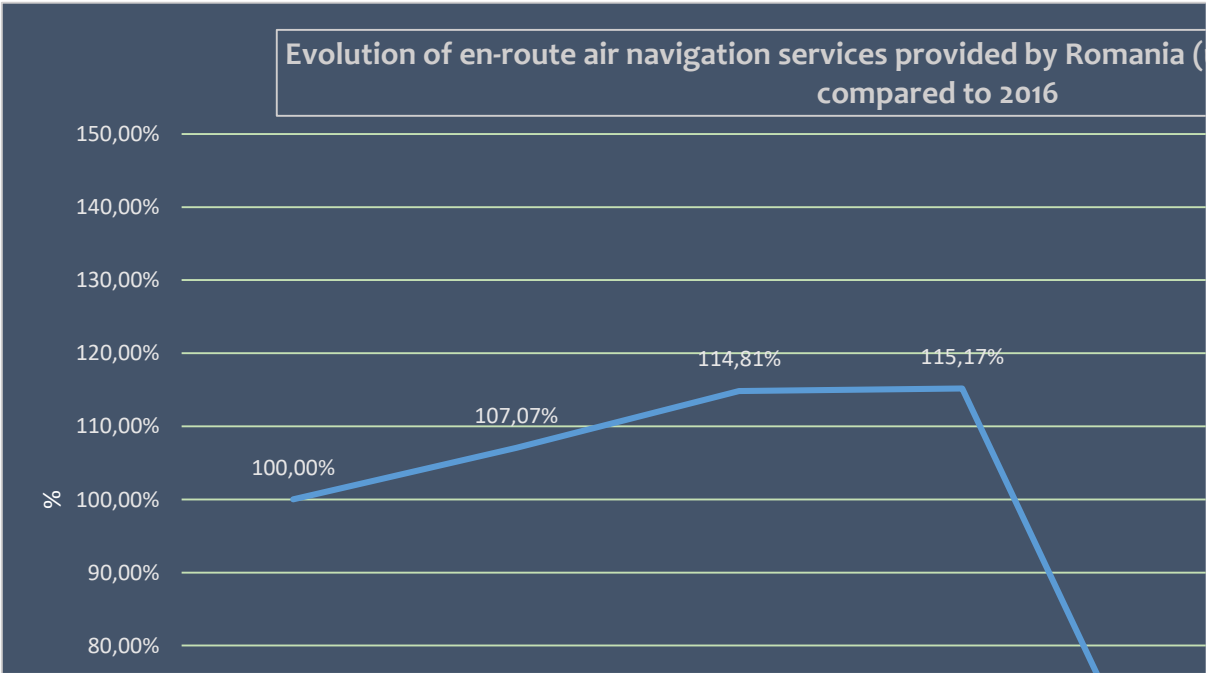
STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2022
(all amounts are presented in RON unless otherwise stated)

	2022	2021
Cash flows from operating activities		
Profit for the period	72,680,561	50,302,057
Adjustments to reconcile the net result with the net cash used in operating activities:		
Income tax expenses	21,615,548	-
Deferred income tax	-	-
Adjustment of the value of tangible and intangible assets - net	52,709,394	48,653,955
Adjustment of rights of use assets	3,283,076	2,971,745
Adjustments regarding provisions for current assets – net	22,209,573	(13,401,239)
Adjustments regarding provisions for risks and expenses – net	16,867,907	1,834,128
Adjustments regarding provisions for employee benefits IAS 19 – net	(13,096,818)	(27,841,421)
Adjustment to provisions for other liabilities to employees - net	52,425,634	9,529,330
Net loss from the sale of tangible and intangible assets	70,857	372,405
Income from operating subsidiaries	(133,155)	(3,713,488)
Interest income	(1,446,168)	(926,469)
Bank interest expenses	19,883,684	5,718,926
Interest expenses on leasing contracts IFRS 16	481,292	407,339
(Gain)/Net loss from IFRS 16 amendments	20,718	(47,718)
Interest expense related to the net liability for employee benefits IAS 19	41,662,962	23,162,386
Effect of exchange rate variation on lease obligations IFRS 16	(29,205)	363,731
Increase/(decrease) in operating cash before changes in working capital	289,205,860	97,385,667
Changes in working capital – increase/decrease in:		
Increase in balances of trade receivables and other receivables	(205,221,146)	(291,980,222)
(Increase)/Decrease in inventory balances	(1,208,334)	758
Increase in trade payables and other payables balances	74,133,791	45,918,002
Cash flows from operating activities	153,677,171	(148,675,795)
Bank interest paid	(19,883,684)	(5,718,926)
Interest paid IFRS 16	(455,423)	(399,262)
Benefits paid to employees IAS 19	(36,644,775)	(47,112,185)
Profit tax paid	(15,573,783)	-
Net cash from/(used in) operating activities	84,352,507	(201,906,168)
Cash flows from investing activities		
Cash payments for the purchase of land and fixed assets, intangible assets and other long-term assets	(40,116,847)	(29,547,758)

	2022	2021
Cash flows from operating activities		
Income from sales of tangible assets	5,593	720
Interest income		-
Dividends received	1,446,168	2,201,930
Cash payment for the purchase of financial assets or short-term investments ceded	(201,230)	-
Cash receipts from bonds and treasury securities, deposits with maturity over 3 months	-	38,282,122
Net cash from/(used in) investing activities	(38,866,316)	10,937,014
Cash flows from financing activities:		
Cash receipts from loans guaranteed by the Government	146,953,800	186,946,200
Payments in cash leasing contracts IFRS 16	(3,219,830)	(3,288,081)
Net cash from financing activities	143,733,970	183,658,119
Net increase/(decrease) in cash and cash equivalents	189,220,161	(7,311,036)
Cash and cash equivalents at the beginning of the financial year	15,812,812	23,123,848
Cash and cash equivalents at the end of the financial year	205,032,973	15,812,812

CHARTS





*starting with 2008 the en-route unit rate is established in national currency. Actual unit rates billed in 2016-2022 were adjusted monthly with the variation between the REUTERS monthly average leu/euro exchange rate of the previous month and the reference leu/euro exchange rate used for the approved unit.

GLOSAR/GLOSSARY

AACR/RCAA	Autoritatea Aeronautică Civilă Română Romanian Civil Aeronautical Authority
ACC	Centrul de Control Regional Area Control Center
AFP	Mesaj ATC de Propunere a Planului de Zbor ATC Flight Plan Proposal Message
AIHCB	Aeroportul Internațional Henri Coandă București Bucharest Henri Coandă International Airport
AIS	Servicii de Informare Aeronautică Aeronautical Information Services
AIP	Publicație de Informare Aeronautică Aeronautical Information Publication
AIRAC	Regularizarea și Controlul Distribuiri Informațiilor Aeronautice Aeronautical Information Regulation and Control
ANCOM	Autoritatea Națională pentru Administrare și Reglementare în Comunicații National Authority for Management and Regulation in Communications
ANM	Administrația Națională de Meteorologie National Meteorological Administration
ANSP	Furnizori de servicii de trafic aerian Air Navigation Service Provider
ANS	Servicii de Navigație Aeriană Air Navigation Services
AOC	Centrul de Operațiuni Aeriene Air Operation Center
APP	Apropiere Approach
APV	Procedură de Apropiere cu Ghidare Verticală Approach Procedure with Vertical Guidance

ARN	Rețeaua Europeană de Rute ATS European ATS Route Network
ARTAS	Sistem de Supraveghere și Urmărire a Zborurilor într-o Zonă Geografică Definită ATM Surveillance Tracker and Server
A-SMGCS	Sistem de Control și de Ghidare a Mișcărilor pe Suprafață Advance Surface Movement Guidance & Control System
ATM	Organizarea Traficului Aerian Air Traffic Management
ATS	Servicii de Trafic Aerian Air Traffic Services
ATIS	Serviciul Automatizat de Informare la Terminal Automatic Terminal Information Service
ATSU	Unitate de Servicii de Trafic Aerian Air Traffic Services Unit
BMA	Birou Meteorologic de Aerodrom Aerodrome Meteorological Bureau
BULATSA	Autoritatea Serviciilor de Trafic Aerian din Bulgaria Bulgarian Air Traffic Services Authority
CAL	Identificator de Locație Code Allocation List
CANSO	Organizația Internațională a Serviciilor de Navigație Aeriană Civil Air Navigation Services Organisation
CBS	Sectoare Transfrontaliere de Spațiu Aerian Cross Border Sectors
CDM	Luare de decizii prin colaborare Collaborative Decision Making
CDO	Operațiuni de Coborâre Continuă Continuous Descent Operations
CITA	Controlor de Informare Trafic Aerian Air Traffic Information Controller

CNS	Comunicație, Navigație, Supraveghere Communication, Navigation, Surveillance
CNPMNA	Centrul Național de Protecție Meteorologică a Navigației Aeriene Aeronautical Meteorological Centre
CPDLC	Comunicare Între Controlori de Trafic Aerian și Pilot prin Data Link Controller–Pilot Data Link Communications
CPPZI	Cerințe Privind Proiectarea Procedurilor de Zbor Instrumental Instrument Flight Procedure Design Requirement
CS	Servicii Centralizate Centralized Services
CTA/ATC	Controlor de Trafic Aerian Air Traffic Controller
D-ATIS	Serviciu de Informare Automată în Format Digital pentru Zona de Terminal Digital Automatic Terminal Information Service
DLS	Servicii Data Link Data Link Services
DME	Echipament pentru Măsurare la Distanță Distance measuring equipment
DTM	Direcția Topografică Militară Military Topographic Department
DVOR	Radiofar Omnidirecțional VHF Doppler Doppler VHF Omnidirectional Range
EAD	Baza de Date AIS Europeană European AIS Database
EASA	Agenția Europeană pentru Siguranța Aviației European Aviation Safety Agency
EGNOS	Sistem de Radionavigație prin Satelit European Geostationary Navigation Overlay Service

ESA	Agenția Spațială Europeană European Space Agency
ESSIP	Implementare Cer Unic European European Single Sky Implementation
EUROCONTROL	Organizația Europeană pentru Siguranța Navigației Aeriene European Organization for the Safety of Air Navigation
FAT	Teste de Acceptare la Producator Functional Acceptance Test
FAB	Bloc Funcțional de Spațiu Aerian Functional Airspace Block
FDPS	Sistem de Procesare a Datelor de Zbor Flight Data Processing System
FEAST	Test Pentru Selecție CTA The First European Air Traffic Controller Selection
FIR	Regiunea de Informare a Zborurilor Flight Information Region
FPL	Plan de Zbor Flight plan
FRA	Flexibilitatea Rutelor de Spațiu Aerian Free Route Airspace
FSA	Mesaj de Activare a Zborului First System Activation
GAT	Trafic Aerian General General Air Traffic
IATA	Asociația Internațională a Transportatorilor Aerieni International Air Transport Association
ICAO	Organizația Internațională a Aviației Civile International Civil Aviation Organization
ILS	Sistem de Aterizare După Instrumente Instrument Landing System
LARA	Managementul Spațiului Aerian Local și Sub-Regional

	Local and sub-Regional Airspace Management
LoA	Scrisoare de Înțelegere Letter of Agreement
LSSIP	Implementarea Locală a Cerului Unic Local Single Sky Implementation
LVO	Operațiuni în Condiții de Vizibilitate Redusă Low Visibility Operations
LVTO	Decolare la Vizibilitate Redusă Low Visibility Take - Off
MBI	Teme de Briefing Obligatorii Mandatory Briefing Items
MRT	Timp Mediu de Răspuns Mean Response Time
MSA/ASM	Managementul Spațiului Aerian Airspace Management
NATS	Autoritatea Serviciilor de Trafic Aerian din Anglia National Air Traffic Services
NDB	Semnalizare Luminoasă Non-direcțională Non-directional Beacon
NEST	Instrument de Planificare Strategică la Nivel de Rețea Network Strategic Tool
N-FRA	Flexibilitatea Rutelor de Spațiu Aerian pe Timp de Noapte Night Free Route Airspace
NIDS	Sistem Operativ de Afișare Informații și Date New Information Display System
NMOC	Centru Operațional de Management al Rețelei Network Manager Operations Centre
NOTAM	Notice to Airmen Avize către Navigatori
NSA	Autoritatea Națională de Supervizare National Supervisory Authority

OAT	Trafic Aerian Operațional Operational Air Traffic
OMM/WMO	Organizația Meteorologică Mondială World Meteorological Organization
PAN-AM	Academia Internațională de Aviație International Flight Academy
PANS-ATM	Procedura Serviciilor de Navigație Aeriană-Managementul Traficului Aerian Procedure for Air Navigation Services-Air Traffic Management
PNP	Plan Național de Performanță Performnace National Plan
PPP	Paritatea Puterii de Cumpărare Purchasing Power Parity
PRNAV	Zonă de Navigație de Precizie Precision Area Navigation
QMS	Sistemul de Management al Calității Quality Management System
RACR	Reglementări Aeronautice Civile Române Romanian Civil Aeronautical Regulation
RACMR	Reglementarea Aeronautică Civilă Militară Română Romanian Civil Military Aeronautical Regulation
ROMAWOS	Sistem de Observare în Timp Real a Vremii Real-Time Operated and Managed Weather Observation System
RTS	Simulare în Timp Real Real Time Simulation
RVT	Turn Virtual de Control la Distanță Remote and Virtual Tower
SAR	Căutare și Salvare Search and Rescue
SAP	Plan Strategic de Acțiune Strategy & Action Plan

SAT	Teste de Acceptare la Beneficiar Site acceptance test
SES	Cer Unic European Single European Sky
SESAR	Program de dezvoltare ATM în cadrul CUE Single European Sky ATM Research
SID	Decolare După Instrumente Standard Standard Instrument Departure
SMFA	Statul Major al Forțelor Aeriene Romanian Air Force
SMG	Statul Major General Air Force Staff
SSR	Radar de Supraveghere Secundar Secondary Surveillance Radar
STAR	Rută de Aterizare Standard Standard Terminal Arrival Route
STS	Servicii de Comunicații pe Suport Special Telecommunication Service
SUR	Supraveghere Surveillance
TEN-T	Rețeaua Transeuropeană de Transport The Trans-European Transport Network in Europe
TMA	Zona de Control de Terminal Terminal Control Area
TWR	Turn de control Tower
UFSA/FUA	Utilizarea Flexibilă a Spațiului Aerian Flexible Use of Airspace
VCS	Sistem de Comunicare Vocală Voice Communication System

VFR Reguli de Zbor la Vedere
Visual Flight Rules

WAM Tehnologie de Supraveghere în Vederea Asigurării
Eșalonării Aeronavelor
Wide Area Multilateration